

12.0 7.5

164

| VESSEL<br>University of Hawaii R/V Kilo Moana |    |          |    |           |   |          |    |               |   | PROJECT & LEG<br>KM03- , leg 1 |   |                  |   | DSD8 I.D.        |   | STATION DESIGNATION     |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
|-----------------------------------------------|----|----------|----|-----------|---|----------|----|---------------|---|--------------------------------|---|------------------|---|------------------|---|-------------------------|---|------------------------|---|-------------------------------------|---|---------------------|---|---------|---|------------------------|---|--------------|---|--------------------------------------|---|---|--|--|--|--|--|--|--|
| CONSC<br>CAST #                               |    | LATITUDE |    | LONGITUDE |   | DATE JD= |    | TIME<br>(GMT) |   | DRY BULB<br>(°C)               |   | WET BULB<br>(°C) |   | PRESSURE<br>(mb) |   | SEA STATE<br>VISIBILITY |   | WIND<br>DIRN.<br>(deg) |   | WIN<br>D<br>SPD.<br>(m/s)           |   | CLOUD (amt)<br>TYPE |   | WEATHER |   | BOTTOM<br>DEPTH<br>(m) |   | STA. NAME/ID |   |                                      |   |   |  |  |  |  |  |  |  |
| DEG                                           |    | MIN      |    | DEG       |   | MIN      |    | DAY           |   | MO                             |   | YR               |   | HR               |   | MIN                     |   | °C                     |   | °C                                  |   | (mb)                |   | .       |   | .                      |   | .            |   | .                                    |   |   |  |  |  |  |  |  |  |
| 4                                             | 23 | 58       | 24 | 9         | 4 | 15       | 14 | 3             | 6 | 1                              | 4 | 3                | 6 | 1                | 2 | 0                       | 7 | 5                      | 1 | 9                                   | 2 | 8                   | 3 | 2       | 5 | 1                      | 5 | 1            | 1 | 1                                    | 1 | 1 |  |  |  |  |  |  |  |
| SBE 9+                                        |    |          |    |           |   |          |    |               |   | DATA LOCATION                  |   |                  |   |                  |   |                         |   |                        |   | REMARKS                             |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| PRESS SN 75662 (9/99)                         |    |          |    |           |   |          |    |               |   | Tape/Diskette ID               |   |                  |   |                  |   |                         |   |                        |   | File Name/Header                    |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| PRI TEMP SN 1503 (9/12/02)                    |    |          |    |           |   |          |    |               |   | START DOWN                     |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| SEC TEMP SN 2013 (1/23/03)                    |    |          |    |           |   |          |    |               |   | AT DEPTH                       |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| PRI COND SN 1178 (9/13/02)                    |    |          |    |           |   |          |    |               |   | AT SURFACE                     |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| SEC COND SN 1176 (1/23/03)                    |    |          |    |           |   |          |    |               |   | PAR SN 4603 (V6) (3/24/03)     |   |                  |   |                  |   |                         |   |                        |   | FLUOR S/N WETStar 732P (V4) (-3/03) |   |                     |   |         |   |                        |   |              |   | Seapoint FLUOR S/N 2441 (V0) (12/02) |   |   |  |  |  |  |  |  |  |
| POS. TRIP DEPTH                               |    |          |    |           |   |          |    |               |   | CTD CONVERTED MONITOR VALUES   |   |                  |   |                  |   |                         |   |                        |   | SAMPLE BOTTLE DATA                  |   |                     |   |         |   |                        |   |              |   | SAMPLE BOTTLE NUMBER                 |   |   |  |  |  |  |  |  |  |
| 1                                             |    | bot      |    |           |   |          |    |               |   |                                |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| 2                                             |    | 120      |    |           |   |          |    |               |   |                                |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| 3                                             |    | 100      |    |           |   |          |    |               |   |                                |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| 4                                             |    | 80       |    |           |   |          |    |               |   |                                |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| 5                                             |    | 60       |    |           |   |          |    |               |   |                                |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| 6                                             |    | 40       |    |           |   |          |    |               |   |                                |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| 7                                             |    | 30       |    |           |   |          |    |               |   |                                |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| 8                                             |    | 20       |    |           |   |          |    |               |   |                                |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| 9                                             |    | 10       |    |           |   |          |    |               |   |                                |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| 10                                            |    | 0        |    |           |   |          |    |               |   |                                |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| 11                                            |    |          |    |           |   |          |    |               |   |                                |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |
| 12                                            |    |          |    |           |   |          |    |               |   |                                |   |                  |   |                  |   |                         |   |                        |   |                                     |   |                     |   |         |   |                        |   |              |   |                                      |   |   |  |  |  |  |  |  |  |

1 3 5 7 9 11 13 15 17 19

| VESSEL         |  | PROJECT & LEG                |  | STATION DESIGNATION |  |
|----------------|--|------------------------------|--|---------------------|--|
| R/V Kilo Moana |  | KM0305b                      |  | DSDB I.D.           |  |
| CONSC CAST #   |  | LATITUDE                     |  | 31.82               |  |
| 25.74          |  | 25.74                        |  | 31.82               |  |
| 01245825.72N   |  | 01245825.72N                 |  | 01245825.72N        |  |
| SBE 9+         |  | TIME                         |  | DATE                |  |
| PRESS SN       |  | DATA ON                      |  | DATE                |  |
| PRI TEMP SN    |  | START DOWN                   |  | DATE                |  |
| SEC TEMP SN    |  | AT DEPTH                     |  | DATE                |  |
| PRI COND SN    |  | AT SURFACE                   |  | DATE                |  |
| SEC COND SN    |  | PAR S/N                      |  | FLUOR S/N           |  |
| POS.           |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA  |  |
| TRIP DEPTH     |  | PRESSURE                     |  | SALINITY            |  |
| 1 bottom       |  | 150                          |  | 11                  |  |
| 2 150          |  | 125                          |  | 13                  |  |
| 3 125          |  | 100                          |  | 14                  |  |
| 4 100          |  | 80                           |  | 15                  |  |
| 5 80           |  | 60                           |  | 16                  |  |
| 6 60           |  | 50                           |  | 17                  |  |
| 7 50           |  | 40                           |  | 18                  |  |
| 8 40           |  | 30                           |  | 19                  |  |
| 9 20           |  | 10                           |  | 20                  |  |
| 10 10          |  | 0                            |  | 21                  |  |
| 11 0           |  | 0                            |  | 22                  |  |
| 12             |  | 0                            |  | 23                  |  |

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| VESSEL<br>R/V Kilo Moana |        | PROJECT & LEG<br>KM0305b |     | DSD8 I.D.                    |    | STATION DESIGNATION |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
|--------------------------|--------|--------------------------|-----|------------------------------|----|---------------------|----|----------------------|------|------------------|------|----------|-------|----------|----|--------------|----|------------|----|--------------|----|-------------|-----|---------|----|--------------|----|--------------|----|--|--|
| CONSC<br>CAST #          |        | LATITUDE                 |     | LONGITUDE                    |    | DATE JD= 120        |    | TIME (GMT)           |      | DRY BULB         |      | WET BULB |       | PRESSURE |    | SEA STATE    |    | WIND DIRN. |    | WIND SPD.    |    | CLOUD (amt) |     | WEATHER |    | BOTTOM DEPTH |    | STA. NAME/ID |    |  |  |
| DEG                      | MIN    | DEG                      | MIN | DAY                          | MO | YR                  | HR | MIN                  | (°C) | (°C)             | (mb) | (m/s)    | (deg) | (m/s)    | *  | *            | *  | *          | *  | *            | *  | *           | (m) |         |    |              |    |              |    |  |  |
| 02                       | 50     | 27                       | 44  | N                            | 15 | 10                  | 00 | 51                   | W    | 30               | A    | P        | R     | 03       | 10 | 19           | 00 | 00         | 00 | 00           | 00 | 00          | 00  | 00      | 00 | 00           | 00 | 00           | 00 |  |  |
| SBE 9+                   |        | TIMES                    |     | JD/TIME                      |    | DATA LOCATION       |    | Tape/Diskette ID     |      | File Name/Header |      | REMARKS  |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| PRESS SN                 |        | DATA ON                  |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| PRI TEMP SN              |        | START DOWN               |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| SEC TEMP SN              |        | AT DEPTH                 |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| PRI COND SN              |        | AT SURFACE               |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| SEC COND SN              |        | PAR S/N                  |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
|                          |        | FLUOR S/N                |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| POS.                     |        | TRIP DEPTH               |     | CTD CONVERTED MONITOR VALUES |    | SAMPLE BOTTLE DATA  |    | SAMPLE BOTTLE NUMBER |      | SAL.             |      | NUTR.    |       | CHL.     |    | WHIT'S NUTR. |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| 1                        | Bottom |                          |     | PRESSURE                     |    | PRI. TEMP.          |    | SEC. TEMP.           |      | SALINITY         |      | SALINITY |       | SAL.     |    | NUTR.        |    | CHL.       |    | WHIT'S NUTR. |    |             |     |         |    |              |    |              |    |  |  |
| 2                        | 80     |                          |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| 3                        | 60     |                          |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| 4                        | 40     |                          |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| 5                        | 30     |                          |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| 6                        | 20     |                          |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| 7                        | 10     |                          |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| 8                        | 0      |                          |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| 9                        |        |                          |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| 10                       |        |                          |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| 11                       |        |                          |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |
| 12                       |        |                          |     |                              |    |                     |    |                      |      |                  |      |          |       |          |    |              |    |            |    |              |    |             |     |         |    |              |    |              |    |  |  |

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leak

| VESSEL         |  | PROJECT & LEG |  | DSD8 I.D.                    |  | STATION DESIGNATION |  |                      |  |          |  |            |  |          |  |           |  |            |  |              |  |           |  |             |  |         |  |              |  |              |  |
|----------------|--|---------------|--|------------------------------|--|---------------------|--|----------------------|--|----------|--|------------|--|----------|--|-----------|--|------------|--|--------------|--|-----------|--|-------------|--|---------|--|--------------|--|--------------|--|
| R/V Kilo Moana |  | KMO305b       |  | KMO309                       |  |                     |  |                      |  |          |  |            |  |          |  |           |  |            |  |              |  |           |  |             |  |         |  |              |  |              |  |
| CONSC CAST #   |  | LATITUDE      |  | LONGITUDE                    |  | DATE JD= 120        |  | TIME (GMT)           |  | DRY BULB |  | WET BULB   |  | PRESSURE |  | SEA STATE |  | VISIBILITY |  | WIND DIRN.   |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 027            |  | 50 20.13 N    |  | 150 56.10 W                  |  | 30 APR 03           |  | 11 46 08             |  | 20.0     |  | 20.0       |  | 30.2     |  | 30.2      |  | 30.2       |  | 30.2         |  | 30.2      |  | 30.2        |  | 30.2    |  | 30.2         |  | 30.2         |  |
| SBE 9+         |  | TIMES         |  | JD/TIME                      |  | DATA ON             |  | START DOWN           |  | AT DEPTH |  | AT SURFACE |  | PAR S/N  |  | FLUOR S/N |  | REMARKS    |  |              |  |           |  |             |  |         |  |              |  |              |  |
| PRESS SN       |  |               |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  |            |  |              |  |           |  |             |  |         |  |              |  |              |  |
| PRI TEMP SN    |  |               |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  |            |  |              |  |           |  |             |  |         |  |              |  |              |  |
| SEC TEMP SN    |  |               |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  |            |  |              |  |           |  |             |  |         |  |              |  |              |  |
| PRI COND SN    |  |               |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  |            |  |              |  |           |  |             |  |         |  |              |  |              |  |
| SEC COND SN    |  |               |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  |            |  |              |  |           |  |             |  |         |  |              |  |              |  |
| POS.           |  | TRIP DEPTH    |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA  |  | SAMPLE BOTTLE NUMBER |  |          |  |            |  |          |  |           |  |            |  |              |  |           |  |             |  |         |  |              |  |              |  |
| 1              |  | Bottom        |  | PRESSURE                     |  | PRI. TEMP.          |  | SEC. TEMP.           |  | SALINITY |  | SALINITY   |  | SAL      |  | NUTR.     |  | CHL.       |  | WHIT'S NUTR. |  |           |  |             |  |         |  |              |  |              |  |
| 2              |  | 60            |  |                              |  |                     |  |                      |  |          |  |            |  | 54       |  | 40        |  |            |  |              |  |           |  |             |  |         |  |              |  |              |  |
| 3              |  | 60            |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  | 41         |  | 138          |  |           |  |             |  |         |  |              |  |              |  |
| 4              |  | 40            |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  | 42 F       |  | 139          |  |           |  |             |  |         |  |              |  |              |  |
| 5              |  | 30            |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  | 43 F       |  | 138          |  |           |  |             |  |         |  |              |  |              |  |
| 6              |  | 20            |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  | 44 F       |  | 138          |  |           |  |             |  |         |  |              |  |              |  |
| 7              |  | 10            |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  | 45 F       |  | 138          |  |           |  |             |  |         |  |              |  |              |  |
| 8              |  | 0             |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  | 46 F       |  | 139          |  |           |  |             |  |         |  |              |  |              |  |
| 9              |  |               |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  |            |  |              |  |           |  |             |  |         |  |              |  |              |  |
| 10             |  |               |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  |            |  |              |  |           |  |             |  |         |  |              |  |              |  |
| 11             |  |               |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  |            |  |              |  |           |  |             |  |         |  |              |  |              |  |
| 12             |  |               |  |                              |  |                     |  |                      |  |          |  |            |  |          |  |           |  |            |  |              |  |           |  |             |  |         |  |              |  |              |  |

6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

| VESSEL         |            | PROJECT & LEG |           | DSDB I.D. |              | STATION DESIGNATION |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
|----------------|------------|---------------|-----------|-----------|--------------|---------------------|------------------|----|---------------|------|----------|----|-----------|---|------------|-------|------------|---|-----------|---|-------------|---|------|---|---------|-----|--------------|---|--------------|--|
| R/V Kilo Moana |            | KM0305b       |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| CONSC CAST #   | LATITUDE   |               | LONGITUDE |           | DATE JD= 120 |                     | TIME (GMT)       |    | WET BULB      |      | PRESSURE |    | SEA STATE |   | VISIBILITY |       | WIND DIRN. |   | WIND SPD. |   | CLOUD (amt) |   | TYPE |   | WEATHER |     | BOTTOM DEPTH |   | STA. NAME/ID |  |
|                | DEG        | MIN           | DEG       | MIN       | DAY          | MO                  | YR               | HR | MIN           | (°C) | (mb)     | +  | +         | + | +          | (deg) | (m/s)      | + | +         | + | +           | + | +    | + | +       | (m) |              |   |              |  |
| 02850          | 28         | 50            | 15        | 05        | 13           | W                   | 30               | A  | P             | 03   | 13       | 00 | 08        | 2 | 06         | 0     | 1          | 0 | 0         | 0 | 0           | 0 | 0    | 0 | 0       | 0   | 0            | 0 | 0            |  |
| SBE 9+         | TIMES      |               | JD/TIME   |           | DATA ON      |                     | Tape/Diskette ID |    | DATA LOCATION |      | REMARKS  |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| PRESS SN       |            |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| PRI TEMP SN    |            |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| SEC TEMP SN    |            |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| PRI COND SN    |            |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| SEC COND SN    |            |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
|                | PAR S/N    |               | FLUOR S/N |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| POS.           | TRIP DEPTH |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| 1              | Bottom     |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| 2              | 60         |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| 3              | 40         |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| 4              | 30         |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| 5              | 20         |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| 6              | 10         |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| 7              | 0          |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| 8              |            |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| 9              |            |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| 10             |            |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| 11             |            |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |
| 12             |            |               |           |           |              |                     |                  |    |               |      |          |    |           |   |            |       |            |   |           |   |             |   |      |   |         |     |              |   |              |  |

6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

| VESSEL         |  | PROJECT & LEG |  | DSDB I.D.                    |  | STATION DESIGNATION |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
|----------------|--|---------------|--|------------------------------|--|---------------------|--|------------------|--|---------------|--|----------|--|----------|--|-----------|--|------------|--|-----------|--|--------------|--|---------|--|--------------|--|--------------|--|
| R/V Kilo Moana |  | KMO305b       |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| CONSC CAST #   |  | LATITUDE      |  | LONGITUDE                    |  | DATE JD= 120        |  | TIME (GMT)       |  | DRY BULB      |  | WET BULB |  | PRESSURE |  | SEA STATE |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt)  |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
|                |  | DEG MIN       |  | DEG MIN                      |  | DAY MO YR           |  | HR MIN           |  | °C            |  | °C       |  | {mb}     |  | *         |  | (deg)      |  | (m/s)     |  | *            |  | (m)     |  |              |  |              |  |
| 0295032.111N   |  | 15040.49W     |  | 30                           |  | A P R 03            |  | 1411000.000      |  | 006.218       |  | 3829517  |  | 4        |  | 4         |  | 4          |  | 4         |  | 4            |  | 4       |  | 4            |  | 4            |  |
| SBE 9+         |  | TIMES         |  | JD/TIME                      |  | DATA ON             |  | Tape/Diskette ID |  | DATA LOCATION |  | REMARKS  |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| PRESS SN       |  | DATA ON       |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| PRI TEMP SN    |  | START DOWN    |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| SEC TEMP SN    |  | AT DEPTH      |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| PRI COND SN    |  | AT SURFACE    |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| SEC COND SN    |  | PAR S/N       |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
|                |  | FLUOR S/N     |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| POS.           |  | TRIP DEPTH    |  | CTD CONVERTED MONITOR VALUES |  | PRESSURE            |  | PRI. TEMP.       |  | SEC. TEMP.    |  | SALINITY |  | SALINITY |  | SAL.      |  | NUTR.      |  | CHL.      |  | WHIT'S NUTR. |  |         |  |              |  |              |  |
| 1              |  | Bottom        |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 2              |  | 120           |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 3              |  | 100           |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 4              |  | 80            |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 5              |  | 60            |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 6              |  | 40            |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 7              |  | 30            |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 8              |  | 20            |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 9              |  | 10            |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 10             |  | 0             |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 11             |  |               |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 12             |  |               |  |                              |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |           |  |              |  |         |  |              |  |              |  |

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|                          |  |                          |  |           |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
|--------------------------|--|--------------------------|--|-----------|--|---------------------|--|------------------|--|---------------|--|----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|---------|--|--------------|--|--------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KMD305b |  | DSDB I.D. |  | STATION DESIGNATION |  |                  |  |               |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| CONSC<br>CAST #          |  | LATITUDE                 |  | LONGITUDE |  | DATE JD- 120        |  | TIME (GMT)       |  | DRY BULB      |  | WET BULB |  | PRESSURE |  | SEA STATE |  | VISIBILITY |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
|                          |  |                          |  |           |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 0305035.35 N             |  | 15040.02 W               |  | 30 APR 03 |  | 151408.00           |  | 06.21            |  | 06.21         |  | 06.21    |  | 06.21    |  | 06.21     |  | 06.21      |  | 06.21      |  | 06.21     |  | 06.21       |  | 06.21   |  | 06.21        |  | 06.21        |  |
| SBE 9+                   |  | TIMES                    |  | JD/TIME   |  | DATA ON             |  | Tape/Diskette ID |  | DATA LOCATION |  | REMARKS  |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRESS SN                 |  |                          |  |           |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI TEMP SN              |  |                          |  |           |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC TEMP SN              |  |                          |  |           |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI COND SN              |  |                          |  |           |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC COND SN              |  |                          |  |           |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PAR S/N                  |  |                          |  |           |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| FLUOR S/N                |  |                          |  |           |  |                     |  |                  |  |               |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |

  

| CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA |            |            |          | SAMPLE BOTTLE NUMBER |      |       |      |              |
|------------------------------|------------|--------------------|------------|------------|----------|----------------------|------|-------|------|--------------|
| POS.                         | TRIP DEPTH | PRESSURE           | PRI. TEMP. | SEC. TEMP. | SALINITY | SALINITY             | SAL. | NUTR. | CHL. | WHIT'S NUTR. |
| 1                            | Bottom     |                    |            |            |          |                      | 57   | 64    |      |              |
| 2                            | 150        |                    |            |            |          |                      |      | 65    |      |              |
| 3                            | 125        |                    |            |            |          |                      |      | 66    |      |              |
| 4                            | 100        |                    |            |            |          |                      |      | 67    |      |              |
| 5                            | 80         |                    |            |            |          |                      |      | 68    |      |              |
| 6                            | 60         |                    |            |            |          |                      |      | 69    | 138  |              |
| 7                            | 40         |                    |            |            |          |                      |      | 70 F  | 138  |              |
| 8                            | 30         |                    |            |            |          |                      |      | 71 F  | 138  |              |
| 9                            | 20         |                    |            |            |          |                      |      | 72 F  | 138  |              |
| 10                           | 10         |                    |            |            |          |                      |      | 73 F  | 138  |              |
| 11                           | 0          |                    |            |            |          |                      |      | 74 F  | 139  |              |
| 12                           |            |                    |            |            |          |                      |      |       |      |              |

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| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KMO305b |  | DSOB I.D.                    |  | STATION DESIGNATION |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
|--------------------------|--|--------------------------|--|------------------------------|--|---------------------|--|------------------|--|---------------|--|------------------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|--------------|--|---------|--|--------------|--|--------------|--|
| CONSC<br>CAST #          |  | LATITUDE                 |  | LONGITUDE                    |  | DATE JD= 170        |  | TIME (GMT)       |  | DRY BULB      |  | WET BULB         |  | PRESSURE |  | SEA STATE |  | VISIBILITY |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt)  |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 0335849.25 N             |  | 15052.91 W               |  | 30 APR 03                    |  | 191208.40           |  | 191208.40        |  | 5193820213    |  | 3210187          |  | 3210187  |  | 3210187   |  | 3210187    |  | 3210187    |  | 3210187   |  | 3210187      |  | 3210187 |  | 3210187      |  | 3210187      |  |
| SBE 9+                   |  | TIMES                    |  | JD/TIME                      |  | DATA ON             |  | Tape/Diskette ID |  | DATA LOCATION |  | File Name/Header |  | REMARKS  |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| PRESS SN                 |  | DATA ON                  |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| PRI TEMP SN              |  | START DOWN               |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| SEC TEMP SN              |  | AT DEPTH                 |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| PRI COND SN              |  | AT SURFACE               |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| SEC COND SN              |  | PAR S/N                  |  | FLUOR S/N                    |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| POS.                     |  | TRIP DEPTH               |  | CTD CONVERTED MONITOR VALUES |  | PRESSURE            |  | PRI. TEMP.       |  | SEC. TEMP.    |  | SALINITY         |  | SALINITY |  | SALINITY  |  | SAL.       |  | NUTR.      |  | CHL.      |  | WHIT'S NUTR. |  |         |  |              |  |              |  |
| 1                        |  | Bottom                   |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 2                        |  | 175                      |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 3                        |  | 150                      |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 4                        |  | 125                      |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 5                        |  | 100                      |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 6                        |  | 80                       |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 7                        |  | 60                       |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 8                        |  | 40                       |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 9                        |  | 20                       |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 10                       |  | 20                       |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 11                       |  | 10                       |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |
| 12                       |  | 0                        |  |                              |  |                     |  |                  |  |               |  |                  |  |          |  |           |  |            |  |            |  |           |  |              |  |         |  |              |  |              |  |

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prostate w/o filtered nuts at top

| VESSEL                  |          | PROJECT & LEG        |     | STATION DESIGNATION |     |
|-------------------------|----------|----------------------|-----|---------------------|-----|
| R/V Kilo Moana          |          | KM0305b              |     |                     |     |
| 59 06.63N               |          | 150 59.41            |     |                     |     |
| CONSC CAST #            | LATITUDE | DEG                  | MIN | DEG                 | MIN |
| 437                     | 06.63N   | 59                   | 43  | 150                 | 59  |
| LONGITUDE               |          | DEG                  | MIN | DEG                 | MIN |
|                         |          | 150                  | 59  | 150                 | 59  |
| DATE                    |          | DAY                  | MO  | DAY                 | MO  |
|                         |          | 1                    | 10  | 1                   | 10  |
| TIME (GMT)              |          | HR                   | MIN | HR                  | MIN |
|                         |          | 0                    | 11  | 0                   | 11  |
| WET BULB                |          | DRY BULB             |     | PRESSURE            |     |
|                         |          |                      |     |                     |     |
| SEA STATE               |          | WIND DIRN.           |     | WIND SPD.           |     |
|                         |          |                      |     |                     |     |
| CLOUD (amt)             |          | TYPE                 |     | WEATHER             |     |
|                         |          |                      |     |                     |     |
| BOTTOM DEPTH            |          | STA. NAME/ID         |     |                     |     |
| 175                     |          | 201                  |     |                     |     |
| REMARKS                 |          | DATA LOCATION        |     | FILE NAME/HEADER    |     |
|                         |          |                      |     |                     |     |
| Tape/Diskette ID        |          | FLUOR S/N            |     | PAR S/N             |     |
|                         |          |                      |     |                     |     |
| DATA ON                 |          | START DOWN           |     | AT DEPTH            |     |
|                         |          |                      |     |                     |     |
| SEC TEMP SN             |          | PRI COND SN          |     | SEC COND SN         |     |
|                         |          |                      |     |                     |     |
| CLEANED AIR BLEED VALVE |          | MAX. DEPTH =         |     | m                   |     |
|                         |          |                      |     |                     |     |
| SAMPLE BOTTLE DATA      |          | SAMPLE BOTTLE NUMBER |     | SAL                 |     |
|                         |          |                      |     | 142                 |     |
|                         |          |                      |     | 143                 |     |
|                         |          |                      |     | 144                 |     |
|                         |          |                      |     | 145                 |     |
|                         |          |                      |     | 146                 |     |
|                         |          |                      |     | 147                 |     |
|                         |          |                      |     | 148                 |     |
|                         |          |                      |     | 149                 |     |
|                         |          |                      |     | 150                 |     |
|                         |          |                      |     | 151                 |     |
|                         |          |                      |     | 152                 |     |
|                         |          |                      |     | 153                 |     |
|                         |          |                      |     | 154                 |     |
|                         |          |                      |     | 155                 |     |
|                         |          |                      |     | 156                 |     |
|                         |          |                      |     | 157                 |     |
|                         |          |                      |     | 158                 |     |
|                         |          |                      |     | 159                 |     |
|                         |          |                      |     | 160                 |     |
|                         |          |                      |     | 161                 |     |
|                         |          |                      |     | 162                 |     |
|                         |          |                      |     | 163                 |     |
|                         |          |                      |     | 164                 |     |
|                         |          |                      |     | 165                 |     |
|                         |          |                      |     | 166                 |     |
|                         |          |                      |     | 167                 |     |
|                         |          |                      |     | 168                 |     |
|                         |          |                      |     | 169                 |     |
|                         |          |                      |     | 170                 |     |
|                         |          |                      |     | 171                 |     |
|                         |          |                      |     | 172                 |     |
|                         |          |                      |     | 173                 |     |
|                         |          |                      |     | 174                 |     |
|                         |          |                      |     | 175                 |     |
|                         |          |                      |     | 176                 |     |
|                         |          |                      |     | 177                 |     |
|                         |          |                      |     | 178                 |     |
|                         |          |                      |     | 179                 |     |
|                         |          |                      |     | 180                 |     |
|                         |          |                      |     | 181                 |     |
|                         |          |                      |     | 182                 |     |
|                         |          |                      |     | 183                 |     |
|                         |          |                      |     | 184                 |     |
|                         |          |                      |     | 185                 |     |
|                         |          |                      |     | 186                 |     |
|                         |          |                      |     | 187                 |     |
|                         |          |                      |     | 188                 |     |
|                         |          |                      |     | 189                 |     |
|                         |          |                      |     | 190                 |     |
|                         |          |                      |     | 191                 |     |
|                         |          |                      |     | 192                 |     |
|                         |          |                      |     | 193                 |     |
|                         |          |                      |     | 194                 |     |
|                         |          |                      |     | 195                 |     |
|                         |          |                      |     | 196                 |     |
|                         |          |                      |     | 197                 |     |
|                         |          |                      |     | 198                 |     |
|                         |          |                      |     | 199                 |     |
|                         |          |                      |     | 200                 |     |
|                         |          |                      |     | 201                 |     |
|                         |          |                      |     | 202                 |     |
|                         |          |                      |     | 203                 |     |
|                         |          |                      |     | 204                 |     |
|                         |          |                      |     | 205                 |     |
|                         |          |                      |     | 206                 |     |
|                         |          |                      |     | 207                 |     |
|                         |          |                      |     | 208                 |     |
|                         |          |                      |     | 209                 |     |
|                         |          |                      |     | 210                 |     |
|                         |          |                      |     | 211                 |     |
|                         |          |                      |     | 212                 |     |
|                         |          |                      |     | 213                 |     |
|                         |          |                      |     | 214                 |     |
|                         |          |                      |     | 215                 |     |
|                         |          |                      |     | 216                 |     |
|                         |          |                      |     | 217                 |     |
|                         |          |                      |     | 218                 |     |
|                         |          |                      |     | 219                 |     |
|                         |          |                      |     | 220                 |     |
|                         |          |                      |     | 221                 |     |
|                         |          |                      |     |                     |     |

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| VESSEL         |        | PROJECT & LEG |     |                              |     | DSD8 ID.   |    | STATION DESIGNATION |    |                  |       |                  |       |                         |     |              |        |              |  |
|----------------|--------|---------------|-----|------------------------------|-----|------------|----|---------------------|----|------------------|-------|------------------|-------|-------------------------|-----|--------------|--------|--------------|--|
| R/V Kilo Moana |        | KM0305b       |     |                              |     |            |    | DAB                 |    |                  |       |                  |       |                         |     |              |        |              |  |
| CONSC          | CAST # | LATITUDE      |     | LONGITUDE                    |     | DATE       |    | TIME (GMT)          |    | WIND DIRN.       |       | WIND SPD.        |       | WEATHER                 |     | BOTTOM DEPTH |        | STA. NAME/ID |  |
|                |        | DEG           | MIN | DEG                          | MIN | DAY        | MO | YR                  | HR | MIN              | (deg) | (m/s)            | * * * | * * *                   | (m) |              |        |              |  |
| 43             | 9591A  | 04            | N   | 15                           | 20  | 1          | M  | A                   | Y  | 0                | 3     | 0                | 3     | 8                       | 1   | 3            | *10085 | KE1          |  |
| SBE 9+         |        | TIMES         |     | JD/TIME                      |     | DATE       |    | TIME (GMT)          |    | WIND DIRN.       |       | WIND SPD.        |       | WEATHER                 |     | BOTTOM DEPTH |        | STA. NAME/ID |  |
|                |        | DATA ON       |     | START DOWN                   |     | AT DEPTH   |    | AT SURFACE          |    | Tape/Diskette ID |       | File Name/Header |       | Cleaned air bleed valve |     | MAX. DEPTH = |        | m            |  |
| SEC COND SN    |        | PAR S/N       |     | FLUOR S/N                    |     |            |    |                     |    |                  |       |                  |       |                         |     |              |        |              |  |
| POS.           |        | TRIP DEPTH    |     | CTD CONVERTED MONITOR VALUES |     |            |    |                     |    |                  |       |                  |       |                         |     |              |        |              |  |
|                |        |               |     | PRESSURE                     |     | PRI. TEMP. |    | SEC. TEMP.          |    | SALINITY         |       | SALINITY         |       | SAL                     |     | NUTR.        |        | CHL          |  |
| 1              |        | Bottom        |     | Wiskat #                     |     |            |    |                     |    |                  |       |                  |       | 67                      |     | 160          |        | ✓            |  |
| 2              |        | 60            |     |                              |     |            |    |                     |    |                  |       |                  |       |                         |     | 161          |        | ✓            |  |
| 3              |        | 40            |     |                              |     |            |    |                     |    |                  |       |                  |       |                         |     | 162          |        | ✓            |  |
| 4              |        | 30            |     |                              |     |            |    |                     |    |                  |       |                  |       |                         |     | 1            |        | ✓            |  |
| 5              |        | 20            |     |                              |     |            |    |                     |    |                  |       |                  |       |                         |     | 2            |        | ✓            |  |
| 6              |        | 10            |     |                              |     |            |    |                     |    |                  |       |                  |       |                         |     | 3            |        | ✓            |  |
| 7              |        | 0             |     |                              |     |            |    |                     |    |                  |       |                  |       |                         |     | 4            |        | ✓            |  |
| 8              |        |               |     |                              |     |            |    |                     |    |                  |       |                  |       |                         |     |              |        |              |  |
| 9              |        |               |     |                              |     |            |    |                     |    |                  |       |                  |       |                         |     |              |        |              |  |
| 10             |        |               |     |                              |     |            |    |                     |    |                  |       |                  |       |                         |     |              |        |              |  |
| 11             |        |               |     |                              |     |            |    |                     |    |                  |       |                  |       |                         |     |              |        |              |  |
| 12             |        |               |     |                              |     |            |    |                     |    |                  |       |                  |       |                         |     |              |        |              |  |

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5 9 0 0 10 11 17 18 20 21 22 23

|                          |  |                          |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
|--------------------------|--|--------------------------|--|------------------------------|--|-----------------------------------|--|--------------------|--|----------------------|--|------------|--|------------|--|------------|--|------------|--|-----------------|--|------------|--|-------------|--|------------|--|-----------------|--|--------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KW0305b |  | DSD8 I.D.                    |  | STATION DESIGNATION<br><i>LAB</i> |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| CONSC<br>CAST #          |  | LATITUDE                 |  | LONGITUDE                    |  | DATE JD= 121                      |  | TIME (GMT)         |  | DRY BULB             |  | WET BULB   |  | PRESSURE   |  | SEA STATE  |  | VISIBILITY |  | WIND DIRN.      |  | WIND SPD.  |  | CLOUD (amt) |  | WEATHER    |  | BOTTOM<br>DEPTH |  | STA. NAME/ID |  |
| 0435903.50               |  | N 15 21 7.09             |  | W 101 17.09                  |  | 11 5006.70                        |  | 11 5006.70         |  | 11 5006.70           |  | 11 5006.70 |  | 11 5006.70 |  | 11 5006.70 |  | 11 5006.70 |  | 11 5006.70      |  | 11 5006.70 |  | 11 5006.70  |  | 11 5006.70 |  | 11 5006.70      |  | 11 5006.70   |  |
| SBE 9+                   |  | TIMES                    |  | JD/TIME                      |  | DATA LOCATION                     |  | Tape/Diskette ID   |  | File Name/Header     |  | REMARKS    |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| PRESS SN                 |  | DATA ON                  |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| PRI TEMP SN              |  | START DOWN               |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| SEC TEMP SN              |  | AT DEPTH                 |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| PRI COND SN              |  | AT SURFACE               |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| SEC COND SN              |  | PAR S/N                  |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| POS.                     |  | TRIP DEPTH               |  | CTD CONVERTED MONITOR VALUES |  | FLUOR S/N                         |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| 1                        |  | Bottom                   |  | PRESSURE                     |  | PRI. TEMP.                        |  | SEC. TEMP.         |  | SALINITY             |  | SALINITY   |  | SAL        |  | NUTR.      |  | CHL.       |  | WHIT'S<br>NUTR. |  |            |  |             |  |            |  |                 |  |              |  |
| 2                        |  | 100                      |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| 3                        |  | 80                       |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| 4                        |  | 60                       |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| 5                        |  | 40                       |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| 6                        |  | 30                       |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| 7                        |  | 20                       |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| 8                        |  | 10                       |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| 9                        |  | 0                        |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| 10                       |  |                          |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| 11                       |  |                          |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |
| 12                       |  |                          |  |                              |  |                                   |  |                    |  |                      |  |            |  |            |  |            |  |            |  |                 |  |            |  |             |  |            |  |                 |  |              |  |

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|                          |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
|--------------------------|--|--------------------------|--|-----------|--|---------------------|--|------------------|--|---------------|--|-------------------------|--|--------------------|--|------------|--|-----------|--|-------------|--|---------|--|--------------|--|--------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0305b |  | DSDB ID.  |  | STATION DESIGNATION |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| CONSC<br>CAST #          |  | LATITUDE                 |  | LONGITUDE |  | DATE                |  | TIME (GMT)       |  | WET BULB      |  | PRESSURE                |  | SEA STATE          |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 0445901.17               |  | N 15 21 4.13             |  | W 01 13   |  | 12 1                |  | 12 52 06.50      |  | 06.02         |  | 4                       |  | 30                 |  | 25         |  | 217       |  | * * *       |  | 10134   |  | KE6          |  |              |  |
| SBE 9+                   |  | TIMES                    |  | JD/TIME   |  | DATA ON             |  | Tape/Diskette ID |  | DATA LOCATION |  | REMARKS                 |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRESS SN                 |  | START DOWN               |  | AT DEPTH  |  | AT SURFACE          |  | PAR S/N          |  | FLUOR S/N     |  | Cleared air bleed valve |  | MAX. DEPTH = 128 m |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC TEMP SN              |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI COND SN              |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC COND SN              |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| POS. TRIP DEPTH          |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 1 Bottom                 |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 2 100                    |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 3 80                     |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 4 60                     |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 5 40                     |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 6 30                     |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 7 20                     |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 8 10                     |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 9 0                      |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 10                       |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 11                       |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 12                       |  |                          |  |           |  |                     |  |                  |  |               |  |                         |  |                    |  |            |  |           |  |             |  |         |  |              |  |              |  |

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|                          |  |                          |  |            |  |                                           |  |                   |  |                  |  |                  |  |           |  |            |  |           |  |             |  |           |  |                 |  |              |  |
|--------------------------|--|--------------------------|--|------------|--|-------------------------------------------|--|-------------------|--|------------------|--|------------------|--|-----------|--|------------|--|-----------|--|-------------|--|-----------|--|-----------------|--|--------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0305b |  | DSDB I.D.  |  | STATION DESIGNATION<br><i>[Signature]</i> |  |                   |  |                  |  |                  |  |           |  |            |  |           |  |             |  |           |  |                 |  |              |  |
| CONSC<br>CAST #          |  | LATITUDE                 |  | LONGITUDE  |  | DATE                                      |  | TIME (GMT)        |  | WET BULB         |  | PRESSURE         |  | SEA STATE |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER   |  | BOTTOM<br>DEPTH |  | STA. NAME/ID |  |
| 0455850.009              |  | 152117.80                |  | 152117.80  |  | 01 MAY 03                                 |  | 141206.30         |  | 16.0             |  | 24.30            |  | 30239     |  | 184210078  |  | 184210078 |  | 184210078   |  | 184210078 |  | 184210078       |  | KE7          |  |
| SBE 9+                   |  | TIME                     |  | JD/TIME    |  | DATE                                      |  | TIME (GMT)        |  | WET BULB         |  | PRESSURE         |  | SEA STATE |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER   |  | BOTTOM<br>DEPTH |  | STA. NAME/ID |  |
| PRESS SN                 |  | DATA ON                  |  | START DOWN |  | AT DEPTH                                  |  | AT SURFACE        |  | Tape/Diskette ID |  | File Name/Header |  | REMARKS   |  |            |  |           |  |             |  |           |  |                 |  |              |  |
| PRI COND SN              |  | PAR S/N                  |  | FLUOR S/N  |  | CLEANED AIR BLEED VALVE                   |  | MAX. DEPTH = 77 m |  |                  |  |                  |  |           |  |            |  |           |  |             |  |           |  |                 |  |              |  |

  

| CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA |            | SAMPLE BOTTLE NUMBER |              |
|------------------------------|------------|--------------------|------------|----------------------|--------------|
| POS.                         | TRIP DEPTH | PRI. TEMP.         | SEC. TEMP. | SALINITY             | WHIT'S NUTR. |
| 1                            | Bottom     |                    |            |                      |              |
| 2                            | 60         |                    |            |                      |              |
| 3                            | 40         |                    |            |                      |              |
| 4                            | 30         |                    |            |                      |              |
| 5                            | 20         |                    |            |                      |              |
| 6                            | 10         |                    |            |                      |              |
| 7                            | 0          |                    |            |                      |              |
| 8                            |            |                    |            |                      |              |
| 9                            |            |                    |            |                      |              |
| 10                           |            |                    |            |                      |              |
| 11                           |            |                    |            |                      |              |
| 12                           |            |                    |            |                      |              |

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|                          |     |                          |     |                  |    |                     |  |
|--------------------------|-----|--------------------------|-----|------------------|----|---------------------|--|
| VESSEL<br>R/V Kilo Moana |     | PROJECT & LEG<br>KM0305b |     | DSDb ID.         |    | STATION DESIGNATION |  |
| CONSC<br>CAST #          |     | LATITUDE                 |     | LONGITUDE        |    | DATE JD- 121        |  |
| DEG                      | MIN | DEG                      | MIN | DAY              | MO | YR                  |  |
| 04                       | 58  | 47                       | 04  | N                | 15 | 2013                |  |
| SBE 9+                   |     | TIME (GMT)               |     | WET BULB         |    | WIND DIRN.          |  |
|                          |     | HR MIN                   |     | (°C)             |    | (m/s)               |  |
|                          |     | 17 15                    |     | 50 5             |    | 24 4                |  |
| PRESS SN                 |     | DATA ON                  |     | SEA STATE        |    | WIND SPD.           |  |
|                          |     |                          |     | * *              |    | (m/s)               |  |
| PRI TEMP SN              |     | START DOWN               |     | PRESSURE         |    | WEATHER             |  |
|                          |     |                          |     | (mb)             |    | * *                 |  |
| SEC TEMP SN              |     | AT DEPTH                 |     | WET BULB         |    | WIND DIRN.          |  |
|                          |     |                          |     | (°C)             |    | (deg)               |  |
| PRI COND SN              |     | AT SURFACE               |     | WET BULB         |    | WIND SPD.           |  |
|                          |     |                          |     | (°C)             |    | (m/s)               |  |
| SEC COND SN              |     | AT SURFACE               |     | WET BULB         |    | WIND DIRN.          |  |
|                          |     |                          |     | (°C)             |    | (deg)               |  |
| TRIP DEPTH               |     | FLUOR S/N                |     | Tape/Diskette ID |    | File Name/Header    |  |
| POS.                     |     | PAR S/N                  |     | Tape/Diskette ID |    | File Name/Header    |  |
| 5                        |     | Bottom                   |     | Tape/Diskette ID |    | File Name/Header    |  |
| 6                        |     | 100                      |     | Tape/Diskette ID |    | File Name/Header    |  |
| 8                        |     | 80                       |     | Tape/Diskette ID |    | File Name/Header    |  |
| 9                        |     | 60                       |     | Tape/Diskette ID |    | File Name/Header    |  |
| 10                       |     | 40                       |     | Tape/Diskette ID |    | File Name/Header    |  |
| 11                       |     | 30                       |     | Tape/Diskette ID |    | File Name/Header    |  |
| 17                       |     | 20                       |     | Tape/Diskette ID |    | File Name/Header    |  |
| 18                       |     | 10                       |     | Tape/Diskette ID |    | File Name/Header    |  |
| 20                       |     | 0                        |     | Tape/Diskette ID |    | File Name/Header    |  |
| 21                       |     |                          |     | Tape/Diskette ID |    | File Name/Header    |  |
| 22                       |     |                          |     | Tape/Diskette ID |    | File Name/Header    |  |
| 23                       |     |                          |     | Tape/Diskette ID |    | File Name/Header    |  |

leak  
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| VESSEL          |            | PROJECT & LEG                |            | DSDB ID.           |                  | STATION DESIGNATION  |                    |       |
|-----------------|------------|------------------------------|------------|--------------------|------------------|----------------------|--------------------|-------|
| R/V Kilo Moana  |            | KMO305b                      |            |                    |                  |                      |                    |       |
| CONSC CAST #    | LATITUDE   |                              | LONGITUDE  |                    | DATE JD- 121     |                      | TIME (GMT)         |       |
|                 | DEG        | MIN                          | DEG        | MIN                | DAY              | MO                   | YR                 | HR    |
| 0485844         | 15         | 22                           | 22         | 52                 | W                | 01                   | MAY                | 18    |
| SBE 9+          | TIMES      |                              | JD/TIME    |                    | DATA LOCATION    |                      | REMARKS            |       |
| PRESS SN        | DATA ON    |                              |            |                    | Tape/Diskette ID |                      |                    |       |
| PRI TEMP SN     | START DOWN |                              |            |                    | File Name/Header |                      |                    |       |
| SEC TEMP SN     | AT DEPTH   |                              |            |                    |                  |                      |                    |       |
| PRI COND SN     | AT SURFACE |                              |            |                    |                  |                      |                    |       |
| SEC COND SN     | PAR S/N    |                              | FLUOR S/N  |                    |                  |                      | MAX. DEPTH = 110 m |       |
| POS. TRIP DEPTH |            | CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA |                  | SAMPLE BOTTLE NUMBER |                    |       |
| 1               | Bottom     | PRESSURE                     | PRI. TEMP. | SEC. TEMP.         | SALINITY         | SALINITY             | SAL                | NUTR. |
| 2               | 80         |                              |            |                    |                  |                      | 1623               | 75    |
| 3               | 60         |                              |            |                    |                  |                      | 76                 | 77    |
| 4               | 40         |                              |            |                    |                  |                      | 78                 | 79    |
| 5               | 30         |                              |            |                    |                  |                      | 80                 | 81    |
| 6               | 20         |                              |            |                    |                  |                      | 82                 |       |
| 7               | 10         |                              |            |                    |                  |                      |                    |       |
| 8               | 0          |                              |            |                    |                  |                      |                    |       |
| 9               |            |                              |            |                    |                  |                      |                    |       |
| 10              |            |                              |            |                    |                  |                      |                    |       |
| 11              |            |                              |            |                    |                  |                      |                    |       |
| 12              |            |                              |            |                    |                  |                      |                    |       |

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| VESSEL          |  | PROJECT & LEG                |  | DSOB ID.           |  | STATION DESIGNATION  |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
|-----------------|--|------------------------------|--|--------------------|--|----------------------|--|------------------|--|------------------|--|----------|--|-----------|--|------------|--|-----------|--|-----------|--|---------|--|--------------|--|--------------|--|
| R/V Kilo Moana  |  | KM0305b                      |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| CONSC CAST #    |  | LATITUDE                     |  | LONGITUDE          |  | DATE JD= 121         |  | TIME (GMT)       |  | WET BULB         |  | PRESSURE |  | SEA STATE |  | WIND DIRN. |  | WIND SPD. |  | WIND TYPE |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
|                 |  | DEG MIN                      |  | DEG MIN            |  | DAY MO YR            |  | HR MIN           |  | WET BULB (°C)    |  | (mb)     |  | * * *     |  | (deg)      |  | (m/s)     |  | * * *     |  | * * *   |  | (m)          |  |              |  |
| 0505839.85      |  | N 15224.68                   |  | W 01 M A Y 03      |  | 2634                 |  | 7.4              |  | 6.326            |  | 3825025  |  | 271       |  | 72         |  | 5E5       |  |           |  |         |  |              |  |              |  |
| SBE 9+          |  | TIMES                        |  | JD/TIME            |  | DATA LOCATION        |  | Tape/Diskette ID |  | File Name/Header |  | REMARKS  |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| PRESS SN        |  | DATA ON                      |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| PRI TEMP SN     |  | START DOWN                   |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| SEC TEMP SN     |  | AT DEPTH                     |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| PRI COND SN     |  | AT SURFACE                   |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| SEC COND SN     |  | PAR S/N                      |  | FLUOR S/N          |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| POS. TRIP DEPTH |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 1 Bottom        |  | PRESSURE                     |  | PRL TEMP.          |  | SEC. TEMP.           |  | SALINITY         |  | SALINITY         |  | SAL      |  | NUTR.     |  | CHL.       |  | NUTR.     |  | WHIT'S    |  | NUTR.   |  |              |  |              |  |
| 2 60            |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 3 40            |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 4 30            |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 5 20            |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 6 10            |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 7 5             |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 8               |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 9               |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 10              |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 11              |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 17              |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 20              |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 21              |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 22              |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 24              |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |
| 1               |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |           |  |           |  |         |  |              |  |              |  |

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| 5  | 1  | Bottom |
| 6  | 2  | 125    |
| 8  | 3  | 100    |
| 9  | 4  | 80     |
| 10 | 5  | 60     |
| 11 | 6  | 40     |
| 17 | 7  | 30     |
| 20 | 8  | 20     |
| 21 | 9  | 10     |
| 23 | 10 | 0      |
| 24 | 11 |        |
| 1  | 12 |        |

|                          |  |                                           |  |           |  |                                   |  |                  |  |                  |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
|--------------------------|--|-------------------------------------------|--|-----------|--|-----------------------------------|--|------------------|--|------------------|--|----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|---------|--|--------------|--|--------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br><del>KM0309</del> KM0309 |  | DSD8 I.D. |  | STATION DESIGNATION<br><i>LAB</i> |  |                  |  |                  |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| CONSC<br>CAST #          |  | LATITUDE                                  |  | LONGITUDE |  | DATE JD- 122                      |  | TIME (GMT)       |  | DRY BULB         |  | WET BULB |  | PRESSURE |  | SEA STATE |  | VISIBILITY |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 0575720.63 N             |  | 151 28.44 W                               |  | 122       |  | 10 28 08                          |  | 10 28 08         |  | 807.2            |  | 253      |  | 7240     |  | 13        |  | 10087      |  | CBA3       |  |           |  |             |  |         |  |              |  |              |  |
| SBE 9+                   |  | TIMES                                     |  | JD/TIME   |  | DATA LOCATION                     |  | Tape/Diskette ID |  | File Name/Header |  | REMARKS  |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRESS SN                 |  | DATA ON                                   |  |           |  |                                   |  |                  |  |                  |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI TEMP SN              |  | START DOWN                                |  |           |  |                                   |  |                  |  |                  |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC TEMP SN              |  | AT DEPTH                                  |  |           |  |                                   |  |                  |  |                  |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI COND SN              |  | AT SURFACE                                |  |           |  |                                   |  |                  |  |                  |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC COND SN              |  | PAR S/N                                   |  | FLUOR S/N |  |                                   |  |                  |  |                  |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |

  

| POS. |    | TRIP DEPTH |  | CTD CONVERTED MONITOR VALUES |            |            |          | SAMPLE BOTTLE DATA |          |      |       | SAMPLE BOTTLE NUMBER |             |  |  |
|------|----|------------|--|------------------------------|------------|------------|----------|--------------------|----------|------|-------|----------------------|-------------|--|--|
|      |    |            |  | PRESSURE                     | PRI. TEMP. | SEC. TEMP. | SALINITY | SALINITY           | SALINITY | SAL. | NUTR. | CHL.                 | WHT's NUTR. |  |  |
| 5    | 1  | Bottom     |  |                              |            |            |          |                    |          |      |       |                      |             |  |  |
| 6    | 2  | 60         |  |                              |            |            |          |                    |          |      |       |                      |             |  |  |
| 8    | 3  | 40         |  |                              |            |            |          |                    |          |      |       |                      |             |  |  |
| 9    | 4  | 30         |  |                              |            |            |          |                    |          |      |       |                      |             |  |  |
| 10   | 5  | 20         |  |                              |            |            |          |                    |          |      |       |                      |             |  |  |
| 11   | 6  | 10         |  |                              |            |            |          |                    |          |      |       |                      |             |  |  |
| 17   | 7  | 0          |  |                              |            |            |          |                    |          |      |       |                      |             |  |  |
| 20   | 8  |            |  |                              |            |            |          |                    |          |      |       |                      |             |  |  |
|      | 9  |            |  |                              |            |            |          |                    |          |      |       |                      |             |  |  |
|      | 10 |            |  |                              |            |            |          |                    |          |      |       |                      |             |  |  |
|      | 11 |            |  |                              |            |            |          |                    |          |      |       |                      |             |  |  |
|      | 12 |            |  |                              |            |            |          |                    |          |      |       |                      |             |  |  |

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|--------------------------|---------|------------------------------|-------|--------------------|----|---------------------------|-----|
| VESSEL<br>R/V Kilo Moana |         | PROJECT & LEG<br>KMO309      |       | DSD8 I.D.          |    | STATION DESIGNATION<br>46 |     |
| CONSC<br>CAST #          |         | LATITUDE                     |       | LONGITUDE          |    | DATE JD- 122              |     |
| 058                      | 5718.32 | 151                          | 32.84 | W                  | 02 | M                         | A   |
| SBE 9+                   |         | TIME (GMT)                   |       | TIME (GMT)         |    | TIME (GMT)                |     |
|                          |         | HR                           | MIN   | SEC                | YR | MO                        | DAY |
|                          |         | 11                           | 10    | 08                 | 7  | 0                         | 3   |
| PRESS SN                 |         | WIND DIRN.                   |       | WIND SPD.          |    | WIND DIRN.                |     |
|                          |         | (deg)                        |       | (m/s)              |    | (deg)                     |     |
|                          |         | 372                          |       | 57                 |    | 14                        |     |
| PRI TEMP SN              |         | SEA STATE                    |       | PRESSURE           |    | WET BULB                  |     |
|                          |         | * * *                        |       | (mb)               |    | (°C)                      |     |
|                          |         | 3                            |       | 22                 |    | 4                         |     |
| SEC TEMP SN              |         | VISIBILITY                   |       | WIND DIRN.         |    | WIND SPD.                 |     |
|                          |         | * * *                        |       | (deg)              |    | (m/s)                     |     |
|                          |         | 3                            |       | 72                 |    | 57                        |     |
| PRI COND SN              |         | CLOUD (amt)                  |       | WEATHER            |    | BOTTOM DEPTH              |     |
|                          |         | * * *                        |       | * * *              |    | (m)                       |     |
|                          |         | 4                            |       | X                  |    | 10069                     |     |
| SEC COND SN              |         | STATION NAME/ID              |       | REMARKS            |    | MAX. DEPTH - 67 m         |     |
|                          |         | CBA2                         |       |                    |    |                           |     |
| POS. TRIP DEPTH          |         | CTD CONVERTED MONITOR VALUES |       | SAMPLE BOTTLE DATA |    | SAMPLE BOTTLE NUMBER      |     |
| 1 Bottom                 |         | PRESSURE                     |       | PRL TEMP.          |    | SEC. TEMP.                |     |
| 2 50                     |         |                              |       |                    |    |                           |     |
| 3 40                     |         |                              |       |                    |    |                           |     |
| 4 30                     |         |                              |       |                    |    |                           |     |
| 5 20                     |         |                              |       |                    |    |                           |     |
| 6 10                     |         |                              |       |                    |    |                           |     |
| 7 0                      |         |                              |       |                    |    |                           |     |
| 8                        |         |                              |       |                    |    |                           |     |
| 9                        |         |                              |       |                    |    |                           |     |
| 10                       |         |                              |       |                    |    |                           |     |
| 11                       |         |                              |       |                    |    |                           |     |
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|--------------------------|--|-------------------------|--|------------|--|----------------------------------|--|------------------------------|--|--------------------|--|----------------------|--|----------|--|-----------|--|------------|--|-----------|--|-------------|--|-----------------|--|-----------------|--|--------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0309 |  | DSD8 I.D.  |  | STATION DESIGNATION<br><i>44</i> |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| CONSC<br>CAST #          |  | LATITUDE                |  | LONGITUDE  |  | DATE                             |  | TIME (GMT)                   |  | DRY BULB           |  | WET BULB             |  | PRESSURE |  | SEA STATE |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER         |  | BOTTOM<br>DEPTH |  | STA. NAME/ID |  |
| 059                      |  | 16.75 N                 |  | 151.37 W   |  | 12 MAY 03                        |  | 12 02 08                     |  | 08.0               |  | 07.3                 |  | 24       |  | 3         |  | 253        |  | 16        |  | *           |  | *               |  | 10063           |  | CBA1         |  |
| SBE 9+                   |  | JD/TIME                 |  | DEG        |  | MIN                              |  | HR                           |  | MIN                |  | °C                   |  | °C       |  | (mb)      |  | +          |  | (m/s)     |  | +           |  | +               |  |                 |  |              |  |
| PRESS SN                 |  | DATA ON                 |  | DATA ON    |  | START DOWN                       |  | Tape/Diskette ID             |  | File Name/Header   |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| PRI TEMP SN              |  | AT DEPTH                |  | AT DEPTH   |  | AT SURFACE                       |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| SEC TEMP SN              |  | AT SURFACE              |  | AT SURFACE |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| PRI COND SN              |  |                         |  |            |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| SEC COND SN              |  |                         |  |            |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| POS.                     |  | TRIP DEPTH              |  | PAR S/N    |  | FLUOR S/N                        |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| 5                        |  | Bottom                  |  |            |  |                                  |  | PRESSURE                     |  | PRI. TEMP.         |  | SEC. TEMP.           |  | SALINITY |  | SALINITY  |  | SAL        |  | NUTR.     |  | CHL         |  | WHIT'S<br>NUTR. |  |                 |  |              |  |
| 6                        |  | 50                      |  |            |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| 8                        |  | 40                      |  |            |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| 9                        |  | 30                      |  |            |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| 10                       |  | 20                      |  |            |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| 11                       |  | 10                      |  |            |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| 17                       |  | 0                       |  |            |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| 8                        |  |                         |  |            |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| 9                        |  |                         |  |            |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| 10                       |  |                         |  |            |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| 11                       |  |                         |  |            |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |
| 12                       |  |                         |  |            |  |                                  |  |                              |  |                    |  |                      |  |          |  |           |  |            |  |           |  |             |  |                 |  |                 |  |              |  |

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| VESSEL          |  | PROJECT & LEG                |  | DSD8 ID.           |  | STATION DESIGNATION  |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
|-----------------|--|------------------------------|--|--------------------|--|----------------------|--|------------------|--|------------------|--|----------|--|-----------|--|------------|--|--------------|--|-----------|--|---------|--|--------------|--|--------------|--|
| R/V Kilo Moana  |  | K40305b                      |  | KM0309             |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| CONSC CAST #    |  | LATITUDE                     |  | LONGITUDE          |  | DATE                 |  | TIME (GMT)       |  | WET BULB         |  | PRESSURE |  | SEA STATE |  | WIND DIRN. |  | WIND SPD.    |  | WIND TYPE |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
|                 |  | DEG MIN                      |  | DEG MIN            |  | DAY MO YR            |  | HR MIN           |  | (°C)             |  | (mb)     |  | *         |  | (deg)      |  | (m/s)        |  | *         |  | *       |  | (m)          |  |              |  |
| 0605722.65      |  | N 151.43                     |  | W 151.43           |  | 02 MAY 22            |  | 131208.00        |  | 07.5             |  | 24.3     |  | 37        |  | 23         |  | 9            |  | 09        |  | *10066  |  | CB B1        |  |              |  |
| SBE 9+          |  | TIMES                        |  | JD/TIME            |  | DATA LOCATION        |  | Tape/Diskette ID |  | File Name/Header |  | REMARKS  |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| PRESS SN        |  | DATA ON                      |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| PRI TEMP SN     |  | START DOWN                   |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| SEC TEMP SN     |  | AT DEPTH                     |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| PRI COND SN     |  | AT SURFACE                   |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| SEC COND SN     |  | PAR S/N                      |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
|                 |  | FLUOR S/N                    |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| POS. TRIP DEPTH |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| 1 Bottom        |  | PRESSURE                     |  | PRI TEMP.          |  | SEC TEMP.            |  | SALINITY         |  | SALINITY         |  | SAL      |  | NUTR.     |  | CHL.       |  | WHIT'S NUTR. |  |           |  |         |  |              |  |              |  |
| 2 50            |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| 3 40            |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| 4 30            |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| 5 20            |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| 6 10            |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| 7 0             |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| 8               |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| 9               |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| 10              |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| 11              |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |
| 12              |  |                              |  |                    |  |                      |  |                  |  |                  |  |          |  |           |  |            |  |              |  |           |  |         |  |              |  |              |  |

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|--------------------------|--|-------------------------|--|------------------------------|--|----------------------------------|--|------------------|--|------------------|--|----------|--|-------------------|--|-------------------------|--|------------|--|--------------|--|-------------|--|---------|--|--------------|--|--------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>K40309 |  | DSD8 I.D.                    |  | STATION DESIGNATION<br><i>HB</i> |  |                  |  |                  |  |          |  |                   |  |                         |  |            |  |              |  |             |  |         |  |              |  |              |  |
| CONSC<br>CAST #          |  | LATITUDE                |  | LONGITUDE                    |  | DATE                             |  | TIME (GMT)       |  | DRY BULB         |  | WET BULB |  | PRESSURE          |  | SEA STATE               |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 061                      |  | 5724.86N                |  | 15138.54W                    |  | 02 MAY 2012                      |  | 135708.3         |  | 07.9             |  | 07.9     |  | 23.3              |  | 3                       |  | 37253      |  | 09           |  | 242         |  | 0068    |  | CBB2         |  |              |  |
| SBE 9+                   |  | TIMES                   |  | JD/TIME                      |  | DATE                             |  | TIME (GMT)       |  | DRY BULB         |  | WET BULB |  | PRESSURE          |  | SEA STATE               |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| PRESS SN                 |  | DATA ON                 |  | JD/TIME                      |  | DATE                             |  | TIME (GMT)       |  | DRY BULB         |  | WET BULB |  | PRESSURE          |  | SEA STATE               |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| PRI TEMP SN              |  | START DOWN              |  | JD/TIME                      |  | DATE                             |  | TIME (GMT)       |  | DRY BULB         |  | WET BULB |  | PRESSURE          |  | SEA STATE               |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| SEC TEMP SN              |  | AT DEPTH                |  | JD/TIME                      |  | DATE                             |  | TIME (GMT)       |  | DRY BULB         |  | WET BULB |  | PRESSURE          |  | SEA STATE               |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| PRI COND SN              |  | AT SURFACE              |  | JD/TIME                      |  | DATE                             |  | TIME (GMT)       |  | DRY BULB         |  | WET BULB |  | PRESSURE          |  | SEA STATE               |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| SEC COND SN              |  | PAR S/N                 |  | JD/TIME                      |  | DATE                             |  | TIME (GMT)       |  | DRY BULB         |  | WET BULB |  | PRESSURE          |  | SEA STATE               |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| POS.                     |  | TRIP DEPTH              |  | CTD CONVERTED MONITOR VALUES |  | FLUOR S/N                        |  | Tape/Diskette ID |  | File Name/Header |  | REMARKS  |  | MAX. DEPTH = 65 m |  | Cleared air bleed valve |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 5                        |  | Bottom                  |  | PRESSURE                     |  | PRI. TEMP.                       |  | SEC. TEMP.       |  | SALINITY         |  | SALINITY |  | SAL               |  | NUTR.                   |  | CHL        |  | WHIT'S NUTR. |  |             |  |         |  |              |  |              |  |
| 6                        |  | 50                      |  |                              |  |                                  |  |                  |  |                  |  |          |  |                   |  |                         |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 8                        |  | 40                      |  |                              |  |                                  |  |                  |  |                  |  |          |  |                   |  |                         |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 9                        |  | 30                      |  |                              |  |                                  |  |                  |  |                  |  |          |  |                   |  |                         |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 10                       |  | 20                      |  |                              |  |                                  |  |                  |  |                  |  |          |  |                   |  |                         |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 11                       |  | 10                      |  |                              |  |                                  |  |                  |  |                  |  |          |  |                   |  |                         |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 17                       |  | 0                       |  |                              |  |                                  |  |                  |  |                  |  |          |  |                   |  |                         |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 8                        |  |                         |  |                              |  |                                  |  |                  |  |                  |  |          |  |                   |  |                         |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 9                        |  |                         |  |                              |  |                                  |  |                  |  |                  |  |          |  |                   |  |                         |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 10                       |  |                         |  |                              |  |                                  |  |                  |  |                  |  |          |  |                   |  |                         |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 11                       |  |                         |  |                              |  |                                  |  |                  |  |                  |  |          |  |                   |  |                         |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 12                       |  |                         |  |                              |  |                                  |  |                  |  |                  |  |          |  |                   |  |                         |  |            |  |              |  |             |  |         |  |              |  |              |  |

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| VESSEL          |  | PROJECT & LEG |  | DSDB I.D.  |  | STATION DESIGNATION |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |
|-----------------|--|---------------|--|------------|--|---------------------|--|------------|--|----------|--|-----------|--|------------------------------|--|--------------------|--|----------------------|--|-----------|--|-------------|--|----------|--|--------------|--|--------------|--|
| R/V Kilo Moana  |  | K0309         |  | K0309      |  |                     |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |
| CONSC CAST #    |  | LATITUDE      |  | LONGITUDE  |  | DATE                |  | TIME (GMT) |  | DRY BULB |  | WET BULB  |  | PRESSURE                     |  | SEA STATE          |  | WIND DIRN.           |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER  |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
|                 |  | DEG MIN       |  | DEG MIN    |  | DAY MO YR           |  | HR MIN     |  | °C       |  | °C        |  | (mb)                         |  | * * *              |  | (deg)                |  | (m/s)     |  | * * *       |  | * * *    |  | (m)          |  |              |  |
| 062             |  | 5726.36 N     |  | 15135.44 W |  | 02 MAY 03           |  | 143708     |  | 308.3    |  | 08.0      |  | 23.0                         |  | 373                |  | 11                   |  | 068       |  | 20          |  | 066      |  | CBBS         |  |              |  |
| SBE 9+          |  | TIMES         |  | JD/TIME    |  | DATE                |  | TIME       |  | DRY BULB |  | WET BULB  |  | PRESSURE                     |  | SEA STATE          |  | WIND DIRN.           |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER  |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| PRESS SN        |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N  |  | FLUOR S/N |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |           |  |             |  |          |  |              |  |              |  |
| POS. TRIP DEPTH |  | PRESSURE      |  | PRI. TEMP. |  | SEC. TEMP.          |  | SALINITY   |  | SALINITY |  | SALINITY  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  | SALINITY  |  | SALINITY    |  | SALINITY |  | SALINITY     |  | SALINITY     |  |
| 1 Bottom        |  |               |  |            |  |                     |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |
| 2 50            |  |               |  |            |  |                     |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |
| 3 40            |  |               |  |            |  |                     |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |
| 4 30            |  |               |  |            |  |                     |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |
| 5 20            |  |               |  |            |  |                     |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |
| 6 10            |  |               |  |            |  |                     |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |
| 7 0             |  |               |  |            |  |                     |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |
| 8               |  |               |  |            |  |                     |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |
| 9               |  |               |  |            |  |                     |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |
| 10              |  |               |  |            |  |                     |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |
| 11              |  |               |  |            |  |                     |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |
| 12              |  |               |  |            |  |                     |  |            |  |          |  |           |  |                              |  |                    |  |                      |  |           |  |             |  |          |  |              |  |              |  |

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| 5  | 1  | Bottom |
| 6  | 2  | 110    |
| 8  | 3  | 90     |
| 9  | 4  | 70     |
| 10 | 5  | 50     |
| 11 | 6  | 40     |
| 17 | 7  | 30     |
| 20 | 8  | 20     |
| 21 | 9  | 10     |
| 22 | 10 | 0      |
|    | 11 |        |
|    | 12 |        |

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|--------------------------|--|-------------------------------------------|--|------------|--|-----------------------------------|--|------------|--|---------------|--|---------------|--|---------------|--|-----------|--|------------|--|-----------------|--|-------------|--|---------|--|------------------|--|--------------|--|---------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br><del>KM0309</del> KM0309 |  | DSD8 I.D.  |  | STATION DESIGNATION<br><i>883</i> |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| CONSC<br>CAST #          |  | LATITUDE                                  |  | LONGITUDE  |  | DATE JD= 122                      |  | TIME (GMT) |  | DRY BULB (°C) |  | WET BULB (°C) |  | PRESSURE (mb) |  | SEA STATE |  | WIND DIRN. |  | WIND SPD. (m/s) |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH (m) |  | STA. NAME/ID |  |         |  |
| 0645725.34 N             |  | 15130.55 W                                |  | 15130.55 W |  | 02 MAY 03                         |  | 1155509    |  | 007.72223     |  | 007.72223     |  | 728607        |  | 0350158   |  | 0350158    |  | 0350158         |  | 0350158     |  | 0350158 |  | 0350158          |  | 0350158      |  | 0350158 |  |
| SBE 9+                   |  | TIMES                                     |  | JD/TIME    |  | DATA ON                           |  | START DOWN |  | AT DEPTH      |  | AT SURFACE    |  | DATA LOCATION |  | REMARKS   |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| PRESS SN                 |  |                                           |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| PRI TEMP SN              |  |                                           |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| SEC TEMP SN              |  |                                           |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| PRI COND SN              |  |                                           |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| SEC COND SN              |  |                                           |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| POS. TRIP DEPTH          |  |                                           |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| 1                        |  | Bottom                                    |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| 2                        |  | 125                                       |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| 3                        |  | 100                                       |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| 4                        |  | 80                                        |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| 5                        |  | 60                                        |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| 6                        |  | 40                                        |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| 7                        |  | 30                                        |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| 8                        |  | 20                                        |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| 9                        |  | 10                                        |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| 10                       |  | 0                                         |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| 11                       |  |                                           |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |
| 12                       |  |                                           |  |            |  |                                   |  |            |  |               |  |               |  |               |  |           |  |            |  |                 |  |             |  |         |  |                  |  |              |  |         |  |

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| VESSEL         |        | PROJECT & LEG |     |                              |     | DSDB I.D.          |    | STATION DESIGNATION  |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
|----------------|--------|---------------|-----|------------------------------|-----|--------------------|----|----------------------|----|----------|------|----------|----|-----------|-------|------------|----|-----------|-----|--------------|----|--------------|----|--------------|-------|
| R/V Kilo Moana |        | KMD305b       |     |                              |     | KM0309             |    | SDB                  |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| CONSC          | CASE # | LATITUDE      |     | LONGITUDE                    |     | DATE               |    | TIME (GMT)           |    | WET BULB |      | PRESSURE |    | SEA STATE |       | WIND DIRN. |    | WIND SPD. |     | WEATHER      |    | BOTTOM DEPTH |    | STA. NAME/ID |       |
|                |        | DEG           | MIN | DEG                          | MIN | DAY                | MO | YR                   | HR | MIN      | (°C) | (mb)     | *  | *         | (deg) | (m/s)      | *  | *         | (m) |              |    |              |    |              |       |
| 065            | 5730   | 15            | 28  | 21                           | W   | 02                 | M  | A                    | Y  | 03       | 16   | 44       | 09 | 11        | 07    | 92         | 22 | 37        | 29  | 03           | 84 | 50           | 14 | 4            | CB3B6 |
| SBE 9+         |        | JD/TIME       |     | DATA LOCATION                |     | REMARKS            |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| PRESS SN       |        | DATA ON       |     | Tape/Diskette ID             |     | File Name/Header   |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| PRI TEMP SN    |        | START DOWN    |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| SEC TEMP SN    |        | AT DEPTH      |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| PRI COND SN    |        | AT SURFACE    |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| SEC COND SN    |        | PAR S/N       |     | FLUOR S/N                    |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| POS.           |        | TRIP DEPTH    |     | CTD CONVERTED MONITOR VALUES |     | SAMPLE BOTTLE DATA |    | SAMPLE BOTTLE NUMBER |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| 5              | 1      | Bottom        |     | PRESSURE                     |     | PRI. TEMP.         |    | SEC. TEMP.           |    | SALINITY |      | SALINITY |    | SAL       |       | NUTR.      |    | CHL       |     | WHIT'S NUTR. |    |              |    |              |       |
| 6              | 2      | 125           |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| 8              | 3      | 100           |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| 9              | 4      | 80            |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| 10             | 5      | 60            |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| 11             | 6      | 40            |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| 17             | 7      | 30            |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| 20             | 8      | 20            |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| 21             | 9      | 10            |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| 23             | 10     | 0             |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| 24             | 11     |               |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |
| 1              | 12     |               |     |                              |     |                    |    |                      |    |          |      |          |    |           |       |            |    |           |     |              |    |              |    |              |       |

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| VESSEL          |                                                                       | PROJECT & LEG |            | DSDB I.D. |            | STATION DESIGNATION                     |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
|-----------------|-----------------------------------------------------------------------|---------------|------------|-----------|------------|-----------------------------------------|----------|------------|----------|-----|----------|----------|----------|----------|-----------|------------|------------|-----------|--------------|---------|----------------------|--------------|
| R/V Kilo Moana  |                                                                       | KM0309        |            | KM0305B   |            | <div style="text-align: right;"> </div> |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| CONSC CAST #    | DEG                                                                   | MIN           | LONGITUDE  | DEG       | MIN        | DATE                                    | JD       | TIME (GMT) | HR       | MIN | YR       | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt)  | WEATHER | BOTTOM DEPTH         | STA. NAME/ID |
| 066             | 57                                                                    | 31            | 151216     | 15        | 12         | 16                                      | 12       | 1728       | 09       | 50  | 7        | 507      | 507      | 2237     | 3         | 0          | 0          | 08        | 845          | 0079    | CB137                |              |
| SBE 9+          | REMARKS                                                               |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| PRESS SN        | DATA LOCATION                                                         |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| PRI TEMP SN     | File Name/Header                                                      |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| SEC TEMP SN     | Tape/Diskette ID                                                      |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| PRI COND SN     | <input type="checkbox"/> Cleaned air bleed valve<br>MAX. DEPTH = 78 m |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| SEC COND SN     | PAR S/N <input type="checkbox"/> FLUOR S/N <input type="checkbox"/>   |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| POS. TRIP DEPTH | CTD CONVERTED MONITOR VALUES                                          |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
|                 | PRESSURE                                                              |               | PRI. TEMP. |           | SEC. TEMP. |                                         | SALINITY |            | SALINITY |     | SALINITY |          | SAL.     |          | NUTR.     |            | CHL.       |           | WHIT'S NUTR. |         | SAMPLE BOTTLE NUMBER |              |
| 1               | Bottom                                                                |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 2               | 60                                                                    |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 3               | 40                                                                    |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 4               | 30                                                                    |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 5               | 20                                                                    |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 6               | 10                                                                    |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 7               | 0                                                                     |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 8               |                                                                       |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 9               |                                                                       |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 10              |                                                                       |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 11              |                                                                       |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 17              |                                                                       |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 20              |                                                                       |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 21              |                                                                       |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 23              |                                                                       |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 24              |                                                                       |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |
| 1               |                                                                       |               |            |           |            |                                         |          |            |          |     |          |          |          |          |           |            |            |           |              |         |                      |              |

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| VESSEL<br>R/V Kilo Moana |  |  |  |  |  |  |  |  |  | PROJECT & LEG<br>KM0305b     |  |  |  |  |  |  |  |  |  | STATION DESIGNATION |  |  |  |  |  |  |  |  |  |
|--------------------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|
| CONSC CAST #             |  |  |  |  |  |  |  |  |  | DATE JD=                     |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| LATITUDE                 |  |  |  |  |  |  |  |  |  | LONGITUDE                    |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| DEG MIN                  |  |  |  |  |  |  |  |  |  | DEG MIN                      |  |  |  |  |  |  |  |  |  | HR MIN              |  |  |  |  |  |  |  |  |  |
| 36.94                    |  |  |  |  |  |  |  |  |  | 41.29                        |  |  |  |  |  |  |  |  |  | 0258                |  |  |  |  |  |  |  |  |  |
| 15 7 36.85 N             |  |  |  |  |  |  |  |  |  | 15 14 11.28 W                |  |  |  |  |  |  |  |  |  | 03 04 11.3          |  |  |  |  |  |  |  |  |  |
| SBE 9+                   |  |  |  |  |  |  |  |  |  | JD/TIME                      |  |  |  |  |  |  |  |  |  | DATA LOCATION       |  |  |  |  |  |  |  |  |  |
| PRESS SN                 |  |  |  |  |  |  |  |  |  | DATA ON                      |  |  |  |  |  |  |  |  |  | Tape/Diskette ID    |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN              |  |  |  |  |  |  |  |  |  | START DOWN                   |  |  |  |  |  |  |  |  |  | File Name/Header    |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN              |  |  |  |  |  |  |  |  |  | AT DEPTH                     |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |
| PRI COND SN              |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |
| SEC COND SN              |  |  |  |  |  |  |  |  |  | PAR S/N                      |  |  |  |  |  |  |  |  |  | FLUOR S/N           |  |  |  |  |  |  |  |  |  |
| POS. TRIP DEPTH          |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | SAMPLE BOTTLE DATA  |  |  |  |  |  |  |  |  |  |
| PRESSURE                 |  |  |  |  |  |  |  |  |  | PRI. TEMP.                   |  |  |  |  |  |  |  |  |  | SEC. TEMP.          |  |  |  |  |  |  |  |  |  |
| Niskin                   |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
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| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |

[illegible]

| VESSEL         |     | PROJECT & LEG |     | DSDB I.D.                    |    | STATION DESIGNATION |  |
|----------------|-----|---------------|-----|------------------------------|----|---------------------|--|
| R/V Kilo Moana |     | KM0305b       |     |                              |    | Bk                  |  |
| CONSC CAST #   |     | LATITUDE      |     | LONGITUDE                    |    | TIME (GMT)          |  |
| 33.71          |     | 151 45.63     |     | 0451                         |    |                     |  |
| DEG            | MIN | DEG           | MIN | DAY                          | MO | YR                  |  |
| 073            | 57  | 151           | 45  | 03                           | 04 | 03                  |  |
| SBE 9+         |     | JD/TIME       |     | DATE ID=                     |    | TIME (GMT)          |  |
|                |     |               |     |                              |    |                     |  |
| PRESS SN       |     | DATA ON       |     | Tape/Diskette ID             |    | File Name/Header    |  |
| PRI TEMP SN    |     | START DOWN    |     |                              |    |                     |  |
| SEC TEMP SN    |     | AT DEPTH      |     |                              |    |                     |  |
| PRI COND SN    |     | AT SURFACE    |     |                              |    |                     |  |
| SEC COND SN    |     | PAR S/N       |     | FLUOR S/N                    |    | MAX. DEPTH = m      |  |
| POS.           |     | TRIP DEPTH    |     | CTD CONVERTED MONITOR VALUES |    | SAMPLE BOTTLE DATA  |  |
|                |     |               |     |                              |    |                     |  |
| 1 bottom       |     | 51            |     | PRI. TEMP.                   |    | SEC. TEMP.          |  |
| 2 125          |     | 61            |     |                              |    |                     |  |
| 3 100          |     | 81            |     |                              |    |                     |  |
| 4 80           |     | 91            |     |                              |    |                     |  |
| 5 60           |     | 101           |     |                              |    |                     |  |
| 6 40           |     | 111           |     |                              |    |                     |  |
| 7 30           |     | 171           |     |                              |    |                     |  |
| 8 20           |     | 201           |     |                              |    |                     |  |
| 9 10           |     | 211           |     |                              |    |                     |  |
| 10 0           |     | 231           |     |                              |    |                     |  |
| 11             |     |               |     |                              |    |                     |  |
| 12             |     |               |     |                              |    |                     |  |

[illegible]



|    | Bottom |
|----|--------|
| 5  | 1      |
| 6  | 2      |
| 9  | 3      |
| 9  | 4      |
| 10 | 5      |
| 11 | 6      |
| 17 | 7      |
| 20 | 8      |
| 21 | 9      |
| 23 | 10     |
| 24 | 11     |
| 1  | 12     |

|                          |     |                         |     |                  |    |                     |        |
|--------------------------|-----|-------------------------|-----|------------------|----|---------------------|--------|
| VESSEL<br>R/V Kilo Moana |     | PROJECT & LEG<br>KMO309 |     | DSDB ID.         |    | STATION DESIGNATION |        |
| CONSC<br>CAST #          |     | LATITUDE                |     | LONGITUDE        |    | DATE JD- 123        |        |
| DEG                      | MIN | DEG                     | MIN | DAY              | MO | YR                  |        |
| 07                       | 57  | 15                      | 56  | 16               | W  | 03                  | MAY 03 |
| SBE 9+                   |     | TIMES                   |     | JD/TIME          |    | TIME (GMT)          |        |
| PRESS SN                 |     | DATA ON                 |     | START DOWN       |    | HR MIN              |        |
| PRI TEMP SN              |     | AT DEPTH                |     | AT SURFACE       |    | 09 09 09            |        |
| SEC TEMP SN              |     | AT SURFACE              |     | AT SURFACE       |    | 09 09 09            |        |
| PRI COND SN              |     | AT SURFACE              |     | AT SURFACE       |    | 09 09 09            |        |
| SEC COND SN              |     | AT SURFACE              |     | AT SURFACE       |    | 09 09 09            |        |
| PAR S/N                  |     | FLUOR S/N               |     | Tape/Diskette ID |    | File Name/Header    |        |
| CLEANED AIR BLEED VALVE  |     | MAX. DEPTH = 70 m       |     | REMARKS          |    | REMARKS             |        |
| WIND DIRN.               |     | WIND SPD.               |     | WIND DIRN.       |    | WIND SPD.           |        |
| SEA STATE                |     | PRESSURE                |     | WET BULB         |    | WET BULB            |        |
| VISIBILITY               |     | WIND DIRN.              |     | WIND SPD.        |    | WIND DIRN.          |        |
| CLOUD (amt)              |     | WIND DIRN.              |     | WIND SPD.        |    | WIND DIRN.          |        |
| WEATHER                  |     | WIND DIRN.              |     | WIND SPD.        |    | WIND DIRN.          |        |
| TYPE                     |     | WIND DIRN.              |     | WIND SPD.        |    | WIND DIRN.          |        |
| STATION DESIGNATION      |     | WIND DIRN.              |     | WIND SPD.        |    | WIND DIRN.          |        |
| STA. NAME/ID             |     | WIND DIRN.              |     | WIND SPD.        |    | WIND DIRN.          |        |
| BOTTOM DEPTH             |     | WIND DIRN.              |     | WIND SPD.        |    | WIND DIRN.          |        |
| (m)                      |     | WIND DIRN.              |     | WIND SPD.        |    | WIND DIRN.          |        |
| C8C1                     |     | WIND DIRN.              |     | WIND SPD.        |    | WIND DIRN.          |        |

| POS. | TRIP DEPTH | CTD CONVERTED MONITOR VALUES |            |            |          | SAMPLE BOTTLE DATA |          |      |       | SAMPLE BOTTLE NUMBER |              |  |  |
|------|------------|------------------------------|------------|------------|----------|--------------------|----------|------|-------|----------------------|--------------|--|--|
|      |            | PRESSURE                     | PRI. TEMP. | SEC. TEMP. | SALINITY | SALINITY           | SALINITY | SAL. | NUTR. | CHL.                 | WHIT'S NUTR. |  |  |
| 5    | Bottom     |                              |            |            |          |                    |          |      |       |                      |              |  |  |
| 6    | 50         |                              |            |            |          |                    |          |      |       |                      |              |  |  |
| 8    | 40         |                              |            |            |          |                    |          |      |       |                      |              |  |  |
| 9    | 30         |                              |            |            |          |                    |          |      |       |                      |              |  |  |
| 10   | 20         |                              |            |            |          |                    |          |      |       |                      |              |  |  |
| 11   | 10         |                              |            |            |          |                    |          |      |       |                      |              |  |  |
| 17   | 0          |                              |            |            |          |                    |          |      |       |                      |              |  |  |
| 20   |            |                              |            |            |          |                    |          |      |       |                      |              |  |  |
| 21   |            |                              |            |            |          |                    |          |      |       |                      |              |  |  |
| 23   |            |                              |            |            |          |                    |          |      |       |                      |              |  |  |
| 24   |            |                              |            |            |          |                    |          |      |       |                      |              |  |  |
| 1    |            |                              |            |            |          |                    |          |      |       |                      |              |  |  |

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| VESSEL          |  | PROJECT & LEG |  | DSD8 I.D.  |  | STATION DESIGNATION |  |            |  |            |  |            |  |            |  |            |  |            |  |             |  |            |  |              |  |              |  |
|-----------------|--|---------------|--|------------|--|---------------------|--|------------|--|------------|--|------------|--|------------|--|------------|--|------------|--|-------------|--|------------|--|--------------|--|--------------|--|
| R/V Kilo Moana  |  | K48309b       |  | KMO309     |  | RBS                 |  |            |  |            |  |            |  |            |  |            |  |            |  |             |  |            |  |              |  |              |  |
| CONSC CAST #    |  | LATITUDE      |  | LONGITUDE  |  | DATE                |  | TIME (GMT) |  | WET BULB   |  | PRESSURE   |  | SEA STATE  |  | WIND DIRN. |  | WIND SPD.  |  | CLOUD (amt) |  | WEATHER    |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
|                 |  | DEG MIN       |  | DEG MIN    |  | DAY MO YR           |  | HR MIN     |  | °C         |  | (mb)       |  | * *        |  | (deg)      |  | (m/s)      |  | * *         |  | * *        |  | (m)          |  |              |  |
| 0718            |  | 15204.75      |  | N 15204.75 |  | W 03 MAY 03         |  | 113709     |  | 007.01     |  | 007.01     |  | 321        |  | 0064       |  | 321        |  | 0064        |  | 321        |  | 0064         |  | CCL          |  |
| SBE 9+          |  | JD/TIME       |  | JD/TIME    |  | JD/TIME             |  | JD/TIME    |  | JD/TIME    |  | JD/TIME    |  | JD/TIME    |  | JD/TIME    |  | JD/TIME    |  | JD/TIME     |  | JD/TIME    |  | JD/TIME      |  | JD/TIME      |  |
| PRESS SN        |  | DATA ON       |  | DATA ON    |  | DATA ON             |  | DATA ON    |  | DATA ON    |  | DATA ON    |  | DATA ON    |  | DATA ON    |  | DATA ON    |  | DATA ON     |  | DATA ON    |  | DATA ON      |  | DATA ON      |  |
| PRI TEMP SN     |  | START DOWN    |  | START DOWN |  | START DOWN          |  | START DOWN |  | START DOWN |  | START DOWN |  | START DOWN |  | START DOWN |  | START DOWN |  | START DOWN  |  | START DOWN |  | START DOWN   |  | START DOWN   |  |
| SEC TEMP SN     |  | AT DEPTH      |  | AT DEPTH   |  | AT DEPTH            |  | AT DEPTH   |  | AT DEPTH   |  | AT DEPTH   |  | AT DEPTH   |  | AT DEPTH   |  | AT DEPTH   |  | AT DEPTH    |  | AT DEPTH   |  | AT DEPTH     |  | AT DEPTH     |  |
| PRI COND SN     |  | AT SURFACE    |  | AT SURFACE |  | AT SURFACE          |  | AT SURFACE |  | AT SURFACE |  | AT SURFACE |  | AT SURFACE |  | AT SURFACE |  | AT SURFACE |  | AT SURFACE  |  | AT SURFACE |  | AT SURFACE   |  | AT SURFACE   |  |
| SEC COND SN     |  | PAR S/N       |  | PAR S/N    |  | PAR S/N             |  | PAR S/N    |  | PAR S/N    |  | PAR S/N    |  | PAR S/N    |  | PAR S/N    |  | PAR S/N    |  | PAR S/N     |  | PAR S/N    |  | PAR S/N      |  | PAR S/N      |  |
| POS. TRIP DEPTH |  | FLUOR S/N     |  | FLUOR S/N  |  | FLUOR S/N           |  | FLUOR S/N  |  | FLUOR S/N  |  | FLUOR S/N  |  | FLUOR S/N  |  | FLUOR S/N  |  | FLUOR S/N  |  | FLUOR S/N   |  | FLUOR S/N  |  | FLUOR S/N    |  | FLUOR S/N    |  |
| 5               |  | Bottom        |  | Bottom     |  | Bottom              |  | Bottom     |  | Bottom     |  | Bottom     |  | Bottom     |  | Bottom     |  | Bottom     |  | Bottom      |  | Bottom     |  | Bottom       |  | Bottom       |  |
| 6               |  | 50            |  | 50         |  | 50                  |  | 50         |  | 50         |  | 50         |  | 50         |  | 50         |  | 50         |  | 50          |  | 50         |  | 50           |  | 50           |  |
| 8               |  | 40            |  | 40         |  | 40                  |  | 40         |  | 40         |  | 40         |  | 40         |  | 40         |  | 40         |  | 40          |  | 40         |  | 40           |  | 40           |  |
| 9               |  | 30            |  | 30         |  | 30                  |  | 30         |  | 30         |  | 30         |  | 30         |  | 30         |  | 30         |  | 30          |  | 30         |  | 30           |  | 30           |  |
| 10              |  | 20            |  | 20         |  | 20                  |  | 20         |  | 20         |  | 20         |  | 20         |  | 20         |  | 20         |  | 20          |  | 20         |  | 20           |  | 20           |  |
| 11              |  | 10            |  | 10         |  | 10                  |  | 10         |  | 10         |  | 10         |  | 10         |  | 10         |  | 10         |  | 10          |  | 10         |  | 10           |  | 10           |  |
| 17              |  | 0             |  | 0          |  | 0                   |  | 0          |  | 0          |  | 0          |  | 0          |  | 0          |  | 0          |  | 0           |  | 0          |  | 0            |  | 0            |  |
| 20              |  |               |  |            |  |                     |  |            |  |            |  |            |  |            |  |            |  |            |  |             |  |            |  |              |  |              |  |
| 21              |  |               |  |            |  |                     |  |            |  |            |  |            |  |            |  |            |  |            |  |             |  |            |  |              |  |              |  |
| 23              |  |               |  |            |  |                     |  |            |  |            |  |            |  |            |  |            |  |            |  |             |  |            |  |              |  |              |  |
| 24              |  |               |  |            |  |                     |  |            |  |            |  |            |  |            |  |            |  |            |  |             |  |            |  |              |  |              |  |
| 1               |  |               |  |            |  |                     |  |            |  |            |  |            |  |            |  |            |  |            |  |             |  |            |  |              |  |              |  |

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|                          |  |                         |  |                  |  |                     |  |                                                                                   |  |
|--------------------------|--|-------------------------|--|------------------|--|---------------------|--|-----------------------------------------------------------------------------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0309 |  | DSD8 I.D.        |  | STATION DESIGNATION |  |  |  |
| CONSC<br>CAST #          |  | LATITUDE                |  | LONGITUDE        |  | DATE JD= 123        |  | TIME (GMT)                                                                        |  |
| DEG MIN                  |  | DEG MIN                 |  | DEG MIN          |  | DAY MO YR           |  | HR MIN                                                                            |  |
| 079 57 39                |  | 15 20 2                 |  | 99 W 03 M A Y 03 |  | 12 27 09            |  | 12 27 09                                                                          |  |
| SBE 9+                   |  | TIMES                   |  | JD/TIME          |  | DATA LOCATION       |  | REMARKS                                                                           |  |
| PRESS SN                 |  | DATA ON                 |  | Tape/Diskette ID |  | File Name/Header    |  |                                                                                   |  |
| PRI TEMP SN              |  | START DOWN              |  |                  |  |                     |  |                                                                                   |  |
| SEC TEMP SN              |  | AT DEPTH                |  |                  |  |                     |  |                                                                                   |  |
| PRI COND SN              |  | AT SURFACE              |  |                  |  |                     |  |                                                                                   |  |
| SEC COND SN              |  | PAR S/N                 |  | FLUOR S/N        |  | MAX. DEPTH = 100 m  |  | <input type="checkbox"/> Cleaned air bleed valve                                  |  |

  

| POS. | TRIP DEPTH | CTD CONVERTED MONITOR VALUES |           |           |          | SAMPLE BOTTLE DATA |     |       |     | SAMPLE BOTTLE NUMBER |     |  |  |
|------|------------|------------------------------|-----------|-----------|----------|--------------------|-----|-------|-----|----------------------|-----|--|--|
|      |            | PRESSURE                     | PRL TEMP. | SEC. TEMP | SALINITY | SALINITY           | SAL | NUTR. | CHL | WHIT'S NUTR.         |     |  |  |
| 1    | Bottom     |                              |           |           |          |                    |     |       |     |                      |     |  |  |
| 2    | 80         |                              |           |           |          |                    |     |       |     | 148                  | 149 |  |  |
| 3    | 100        |                              |           |           |          |                    |     |       |     | 150                  |     |  |  |
| 4    | 50         |                              |           |           |          |                    |     |       |     | 151                  |     |  |  |
| 5    | 40         |                              |           |           |          |                    |     |       |     | 152                  |     |  |  |
| 6    | 30         |                              |           |           |          |                    |     |       |     | 153                  |     |  |  |
| 7    | 20         |                              |           |           |          |                    |     |       |     | 154                  |     |  |  |
| 8    | 10         |                              |           |           |          |                    |     |       |     | 155F                 |     |  |  |
| 9    | 0          |                              |           |           |          |                    |     |       |     | 156F                 |     |  |  |
| 10   |            |                              |           |           |          |                    |     |       |     |                      |     |  |  |
| 11   |            |                              |           |           |          |                    |     |       |     |                      |     |  |  |
| 12   |            |                              |           |           |          |                    |     |       |     |                      |     |  |  |

5 6 8 9 10 11 17 20 21 23 24 1

|    |    |        |
|----|----|--------|
| 5  | 1  | bottom |
| 6  | 2  | 175    |
| 8  | 3  | 150    |
| 9  | 4  | 125    |
| 10 | 5  | 100    |
| 11 | 6  | 80     |
| 17 | 7  | 60     |
| 20 | 8  | 40     |
| 21 | 9  | 30     |
| 23 | 10 | 20     |
| 24 | 11 | 10     |
| 1  | 12 | 0      |

| VESSEL            |  | PROJECT & LEG |  | DSD8 I.D. |  | STATION DESIGNATION |  |
|-------------------|--|---------------|--|-----------|--|---------------------|--|
| R/V Kilo Moana    |  | KM0305b       |  | KM0309    |  | JLB                 |  |
| CONSC CAST #      |  | LATITUDE      |  | LONGITUDE |  | DATE JD= 123        |  |
| DEG MIN           |  | DEG MIN       |  | DEG MIN   |  | DAY MO YR           |  |
| 08 15 74 01 8 2 N |  | 15 15 8 05 W  |  | 03 M A Y  |  | 03                  |  |
| SBE 9+            |  | TIMES         |  | JD/TIME   |  | TIME (GMT)          |  |
| PRESS SN          |  | DATA ON       |  |           |  | HR MIN              |  |
| PRI TEMP SN       |  | START DOWN    |  |           |  | 14 10 05            |  |
| SEC TEMP SN       |  | AT DEPTH      |  |           |  | 02 05               |  |
| PRI COND SN       |  | AT SURFACE    |  |           |  | 05 10 20 51         |  |
| SEC COND SN       |  | PAR S/N       |  | FLUOR S/N |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  | (m/s)               |  |
|                   |  |               |  |           |  | WIND DIRN.          |  |
|                   |  |               |  |           |  | (deg)               |  |
|                   |  |               |  |           |  | WIND SPD.           |  |
|                   |  |               |  |           |  |                     |  |

|    |    |        |
|----|----|--------|
| 5  | 1  | bottom |
| 6  | 2  | 100    |
| 8  | 3  | 80     |
| 9  | 4  | 100    |
| 10 | 5  | 40     |
| 11 | 6  | 30     |
| 17 | 7  | 20     |
| 20 | 8  | 10     |
| 21 | 9  | 0      |
| 33 | 10 |        |
| 44 | 11 |        |
| 1  | 12 |        |

|                          |        |                              |            |                     |          |                            |              |
|--------------------------|--------|------------------------------|------------|---------------------|----------|----------------------------|--------------|
| VESSEL<br>R/V Kilo Moana |        | PROJECT & LEG<br>KMO305B     |            | DSDB I.D.<br>KMO309 |          | STATION DESIGNATION<br>JLB |              |
| CONSC<br>CAST #          |        | LATITUDE                     |            | LONGITUDE           |          | DATE JD- 123               |              |
| DEG                      | MIN    | DEG                          | MIN        | DAY                 | MO       | YR                         |              |
| 08                       | 35     | 15                           | 54         | 03                  | 03       | 16                         |              |
| SBE 9+                   |        | TIME (GMT)                   |            | WET BULB            |          | WIND DIRL                  |              |
|                          |        | HR MIN                       |            | (°C)                |          | (deg)                      |              |
|                          |        | 16 30                        |            | 15.06               |          | 260                        |              |
| PRESS SN                 |        | TIME (GMT)                   |            | WET BULB            |          | WIND DIRL                  |              |
|                          |        | HR MIN                       |            | (°C)                |          | (deg)                      |              |
|                          |        | 16 30                        |            | 15.06               |          | 260                        |              |
| PRI TEMP SN              |        | TIME (GMT)                   |            | WET BULB            |          | WIND DIRL                  |              |
|                          |        | HR MIN                       |            | (°C)                |          | (deg)                      |              |
|                          |        | 16 30                        |            | 15.06               |          | 260                        |              |
| SEC TEMP SN              |        | TIME (GMT)                   |            | WET BULB            |          | WIND DIRL                  |              |
|                          |        | HR MIN                       |            | (°C)                |          | (deg)                      |              |
|                          |        | 16 30                        |            | 15.06               |          | 260                        |              |
| PRI COND SN              |        | TIME (GMT)                   |            | WET BULB            |          | WIND DIRL                  |              |
|                          |        | HR MIN                       |            | (°C)                |          | (deg)                      |              |
|                          |        | 16 30                        |            | 15.06               |          | 260                        |              |
| SEC COND SN              |        | TIME (GMT)                   |            | WET BULB            |          | WIND DIRL                  |              |
|                          |        | HR MIN                       |            | (°C)                |          | (deg)                      |              |
|                          |        | 16 30                        |            | 15.06               |          | 260                        |              |
| PAR S/N                  |        | FLUOR S/N                    |            | DATA LOCATION       |          | REMARKS                    |              |
|                          |        |                              |            | File Name/Header    |          |                            |              |
|                          |        |                              |            | Tape/Diskette ID    |          |                            |              |
|                          |        |                              |            |                     |          | Cleared air bleed valve    |              |
|                          |        |                              |            |                     |          | MAX. DEPTH = 95 m          |              |
| POS. TRIP DEPTH          |        | CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA  |          | SAMPLE BOTTLE NUMBER       |              |
| 1                        | bottom | PRESSURE                     | PRI. TEMP. | SEC. TEMP.          | SALINITY | SAL.                       | WHIT'S NUTR. |
| 2                        | 70     |                              |            |                     |          | 184                        |              |
| 3                        | 50     |                              |            |                     |          | 19                         |              |
| 4                        | 40     |                              |            |                     |          | 20                         | -left        |
| 5                        | 30     |                              |            |                     |          | 21                         |              |
| 6                        | 20     |                              |            |                     |          | 22                         |              |
| 7                        | 10     |                              |            |                     |          | 23                         |              |
| 8                        | 0      |                              |            |                     |          | 24                         |              |
| 9                        |        |                              |            |                     |          | 25                         |              |
| 10                       |        |                              |            |                     |          |                            |              |
| 11                       |        |                              |            |                     |          |                            |              |
| 12                       |        |                              |            |                     |          |                            |              |

5 6 8 9 10 11 17 20 21 22 24 1

|    |    |        |
|----|----|--------|
| 5  | 1  | Bottom |
| 6  | 2  | 40     |
| 8  | 3  | 30     |
| 9  | 4  | 20     |
| 10 | 5  | 10     |
| 11 | 6  | 0      |
| 17 | 7  |        |
| 20 | 8  |        |
| 21 | 9  |        |
| 23 | 10 |        |
| 24 | 11 |        |
|    | 12 |        |

5 6 8 9 10 11 17 20 21 23 24 1

| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0305b |  | DSDB I.D.  |  | STATION DESIGNATION |  |            |  |            |  |           |  |                         |  |                         |  |              |  |           |  |             |  |         |  |                     |  |              |  |
|--------------------------|--|--------------------------|--|------------|--|---------------------|--|------------|--|------------|--|-----------|--|-------------------------|--|-------------------------|--|--------------|--|-----------|--|-------------|--|---------|--|---------------------|--|--------------|--|
| CONSC<br>CAST #          |  | LATITUDE                 |  | LONGITUDE  |  | DATE                |  | TIME (GMT) |  | DRY BULB   |  | WET BULB  |  | PRESSURE                |  | SEA STATE               |  | WIND DIRN.   |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER |  | BOTTOM<br>DEPTH (m) |  | STA. NAME/ID |  |
| 52.42                    |  | 36.14                    |  | 123        |  | 1955                |  |            |  |            |  |           |  |                         |  |                         |  |              |  |           |  |             |  |         |  | 67                  |  | MA18         |  |
| 08105752.64N             |  | 15136.40W                |  | 03 MAY 03  |  | 2003                |  | 18.4       |  | 14.4       |  | 11.4      |  | 1129                    |  | 217                     |  | 5            |  | 61        |  | 68          |  |         |  |                     |  |              |  |
| SBE 9+                   |  | TIMES                    |  | DATA ON    |  | START DOWN          |  | AT DEPTH   |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N               |  | Cleared air bleed valve |  | MAX. DEPTH = |  | m         |  | REMARKS     |  |         |  |                     |  |              |  |
| PRESS SN                 |  | DATA ON                  |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N    |  | FLUOR S/N |  | Cleared air bleed valve |  | MAX. DEPTH =            |  | m            |  | REMARKS   |  |             |  |         |  |                     |  |              |  |
| PRI TEMP SN              |  | DATA ON                  |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N    |  | FLUOR S/N |  | Cleared air bleed valve |  | MAX. DEPTH =            |  | m            |  | REMARKS   |  |             |  |         |  |                     |  |              |  |
| SEC TEMP SN              |  | DATA ON                  |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N    |  | FLUOR S/N |  | Cleared air bleed valve |  | MAX. DEPTH =            |  | m            |  | REMARKS   |  |             |  |         |  |                     |  |              |  |
| PRI COND SN              |  | DATA ON                  |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N    |  | FLUOR S/N |  | Cleared air bleed valve |  | MAX. DEPTH =            |  | m            |  | REMARKS   |  |             |  |         |  |                     |  |              |  |
| SEC COND SN              |  | DATA ON                  |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N    |  | FLUOR S/N |  | Cleared air bleed valve |  | MAX. DEPTH =            |  | m            |  | REMARKS   |  |             |  |         |  |                     |  |              |  |
| POS. TRIP DEPTH          |  | DATA ON                  |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N    |  | FLUOR S/N |  | Cleared air bleed valve |  | MAX. DEPTH =            |  | m            |  | REMARKS   |  |             |  |         |  |                     |  |              |  |
| 5 1                      |  | bottom                   |  | 3          |  | 5                   |  | 6          |  | 8          |  | 9         |  | 10                      |  | 11                      |  | 12           |  | 13        |  | 14          |  | 15      |  | 16                  |  | 17           |  |
| 6 2                      |  | 50                       |  | 6          |  | 7                   |  | 8          |  | 9          |  | 10        |  | 11                      |  | 12                      |  | 13           |  | 14        |  | 15          |  | 16      |  | 17                  |  | 18           |  |
| 8 3                      |  | 40                       |  | 7          |  | 8                   |  | 9          |  | 10         |  | 11        |  | 12                      |  | 13                      |  | 14           |  | 15        |  | 16          |  | 17      |  | 18                  |  | 19           |  |
| 9 4                      |  | 30                       |  | 8          |  | 9                   |  | 10         |  | 11         |  | 12        |  | 13                      |  | 14                      |  | 15           |  | 16        |  | 17          |  | 18      |  | 19                  |  | 20           |  |
| 10 5                     |  | 20                       |  | 9          |  | 10                  |  | 11         |  | 12         |  | 13        |  | 14                      |  | 15                      |  | 16           |  | 17        |  | 18          |  | 19      |  | 20                  |  | 21           |  |
| 11 6                     |  | 10                       |  | 10         |  | 11                  |  | 12         |  | 13         |  | 14        |  | 15                      |  | 16                      |  | 17           |  | 18        |  | 19          |  | 20      |  | 21                  |  | 22           |  |
| 17 7                     |  | 0                        |  | 11         |  | 12                  |  | 13         |  | 14         |  | 15        |  | 16                      |  | 17                      |  | 18           |  | 19        |  | 20          |  | 21      |  | 22                  |  | 23           |  |
| 20 8                     |  |                          |  | 12         |  | 13                  |  | 14         |  | 15         |  | 16        |  | 17                      |  | 18                      |  | 19           |  | 20        |  | 21          |  | 22      |  | 23                  |  | 24           |  |
| 21 9                     |  |                          |  | 13         |  | 14                  |  | 15         |  | 16         |  | 17        |  | 18                      |  | 19                      |  | 20           |  | 21        |  | 22          |  | 23      |  | 24                  |  | 25           |  |
| 23 10                    |  |                          |  | 14         |  | 15                  |  | 16         |  | 17         |  | 18        |  | 19                      |  | 20                      |  | 21           |  | 22        |  | 23          |  | 24      |  | 25                  |  | 26           |  |
| 24 11                    |  |                          |  | 15         |  | 16                  |  | 17         |  | 18         |  | 19        |  | 20                      |  | 21                      |  | 22           |  | 23        |  | 24          |  | 25      |  | 26                  |  | 27           |  |
| 1 12                     |  |                          |  | 16         |  | 17                  |  | 18         |  | 19         |  | 20        |  | 21                      |  | 22                      |  | 23           |  | 24        |  | 25          |  | 26      |  | 27                  |  | 28           |  |

|                          |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|------------|--|--|--|--|--|--|--|--|--|----------|--|--|--|--|--|--|--|--|--|------|--|--|--|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|--|--|------|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| VESSEL<br>R/V Kilo Moana |  |  |  |  |  |  |  |  |  | PROJECT & LEG<br>KM0305b     |  |  |  |  |  |  |  |  |  | STATION DESIGNATION |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CONSC CAST #             |  |  |  |  |  |  |  |  |  | DATE JD=                     |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55.18                    |  |  |  |  |  |  |  |  |  | 37.39                        |  |  |  |  |  |  |  |  |  | 2432                |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LATITUDE                 |  |  |  |  |  |  |  |  |  | LONGITUDE                    |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEG MIN                  |  |  |  |  |  |  |  |  |  | DEG MIN                      |  |  |  |  |  |  |  |  |  | HR MIN              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 08757 55.30 N            |  |  |  |  |  |  |  |  |  | 19137.85 W                   |  |  |  |  |  |  |  |  |  | 2040                |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SBE 9+                   |  |  |  |  |  |  |  |  |  | JD/TIME                      |  |  |  |  |  |  |  |  |  | Tape/Diskette ID    |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PRESS SN                 |  |  |  |  |  |  |  |  |  | DATA ON                      |  |  |  |  |  |  |  |  |  | File Name/Header    |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN              |  |  |  |  |  |  |  |  |  | START DOWN                   |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN              |  |  |  |  |  |  |  |  |  | AT DEPTH                     |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PRI COND SN              |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SEC COND SN              |  |  |  |  |  |  |  |  |  | PAR S/N                      |  |  |  |  |  |  |  |  |  | FLUOR S/N           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TRIP DEPTH               |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | SAMPLE BOTTLE DATA  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| POS.                     |  |  |  |  |  |  |  |  |  | PRESSURE                     |  |  |  |  |  |  |  |  |  | PRL TEMP.           |  |  |  |  |  |  |  |  |  | SEC. TEMP. |  |  |  |  |  |  |  |  |  | SALINITY |  |  |  |  |  |  |  |  |  | SAL. |  |  |  |  |  |  |  |  |  | NUTR. |  |  |  |  |  |  |  |  |  | CHL. |  |  |  |  |  |  |  |  |  | WHIT'S NUTR. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  | 6015m                        |  |  |  |  |  |  |  |  |  | 5                   |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  | 186  |  |  |  |  |  |  |  |  |  | 45    |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  | 56                           |  |  |  |  |  |  |  |  |  | 6                   |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  | 46                           |  |  |  |  |  |  |  |  |  | 8                   |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  | 36                           |  |  |  |  |  |  |  |  |  | 9                   |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  | 26                           |  |  |  |  |  |  |  |  |  | 10                  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  | 16                           |  |  |  |  |  |  |  |  |  | 11                  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  | 8                            |  |  |  |  |  |  |  |  |  | 17                  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

☐ Cleaned air bleed valve  
 MAX. DEPTH = \_\_\_\_\_ m

REMARKS

DATA LOCATION

File Name/Header

Tape/Diskette ID

Times

DATA ON

START DOWN

AT DEPTH

AT SURFACE

PAR S/N

FLUOR S/N

| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0305b     |  |                    |  | DSDB I.D.               |  | STATION DESIGNATION |  |              |  |
|--------------------------|--|------------------------------|--|--------------------|--|-------------------------|--|---------------------|--|--------------|--|
| CONSC<br>CAST #          |  | 57.83                        |  | 39.93              |  | 2124                    |  | 97                  |  | STA. NAME/ID |  |
| LATITUDE                 |  | LONGITUDE                    |  | DATE               |  | TIME (GMT)              |  | WET BULB            |  | WIND DIRN.   |  |
| DEG MIN                  |  | DEG MIN                      |  | DAY MONTH YEAR     |  | HR MIN                  |  | (°C)                |  | (deg)        |  |
| 58.11N                   |  | 15144.24W                    |  | 43 MAY 03          |  | 2135                    |  | 7.6                 |  | 185          |  |
| SBE 9+                   |  | JD/TIME                      |  | JD/TIME            |  | Tape/Diskette ID        |  | PRESSURE            |  | WIND SPD.    |  |
| PRESS SN                 |  | TIMES                        |  | DATA ON            |  | File Name/Header        |  | (mb)                |  | (m/s)        |  |
| PRI TEMP SN              |  | DATA ON                      |  | START DOWN         |  |                         |  | SEA STATE           |  | TYPE         |  |
| SEC TEMP SN              |  | AT DEPTH                     |  | AT SURFACE         |  |                         |  | * * *               |  | CLOUD (amt)  |  |
| PRI COND SN              |  | AT SURFACE                   |  |                    |  |                         |  | * * *               |  | WEATHER      |  |
| SEC COND SN              |  |                              |  |                    |  |                         |  | * * *               |  | 97           |  |
| PAR S/N                  |  | FLUOR S/N                    |  | MAX. DEPTH =       |  | Cleared air bleed valve |  | * * *               |  | 97           |  |
| TRIP DEPTH               |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER    |  | * * *               |  | 97           |  |
| POS.                     |  | PRESSURE                     |  | PRI. TEMP.         |  | SEC. TEMP.              |  | SALINITY            |  | SAL.         |  |
| 1                        |  | 5.1                          |  |                    |  |                         |  |                     |  | 52           |  |
| 2                        |  | 5.6                          |  |                    |  |                         |  |                     |  | 53           |  |
| 3                        |  | 4.8                          |  |                    |  |                         |  |                     |  | 54           |  |
| 4                        |  | 3.9                          |  |                    |  |                         |  |                     |  | 55           |  |
| 5                        |  | 2.4                          |  |                    |  |                         |  |                     |  | 56           |  |
| 6                        |  | 1.4                          |  |                    |  |                         |  |                     |  | 57           |  |
| 7                        |  | .8                           |  |                    |  |                         |  |                     |  | 58           |  |
| 8                        |  |                              |  |                    |  |                         |  |                     |  |              |  |
| 9                        |  |                              |  |                    |  |                         |  |                     |  |              |  |
| 10                       |  |                              |  |                    |  |                         |  |                     |  |              |  |
| 11                       |  |                              |  |                    |  |                         |  |                     |  |              |  |
| 12                       |  |                              |  |                    |  |                         |  |                     |  |              |  |

| VESSEL         |  |  |  |  |  |  |  |  |  | PROJECT & LEG |  |  |  |  |  |  |  |  |  | STATION DESIGNATION |  |  |  |  |  |  |  |  |  |
|----------------|--|--|--|--|--|--|--|--|--|---------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|
| R/V Kilo Moana |  |  |  |  |  |  |  |  |  | KM0305b       |  |  |  |  |  |  |  |  |  | DSDB I.D.           |  |  |  |  |  |  |  |  |  |
| CONSC CAST #   |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 59.84          |  |  |  |  |  |  |  |  |  | 42.41         |  |  |  |  |  |  |  |  |  | 2157                |  |  |  |  |  |  |  |  |  |
| LATITUDE       |  |  |  |  |  |  |  |  |  | LONGITUDE     |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 4895759.72N    |  |  |  |  |  |  |  |  |  | 15142.43W     |  |  |  |  |  |  |  |  |  | 2245                |  |  |  |  |  |  |  |  |  |
| DEG MIN        |  |  |  |  |  |  |  |  |  | DEG MIN       |  |  |  |  |  |  |  |  |  | HR MIN              |  |  |  |  |  |  |  |  |  |
| 48 57 59       |  |  |  |  |  |  |  |  |  | 15 14 24      |  |  |  |  |  |  |  |  |  | 22 45               |  |  |  |  |  |  |  |  |  |
| SBE 9+         |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| PRESS SN       |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN    |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN    |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| PRI COND SN    |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| SEC COND SN    |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| TRIP DEPTH     |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 1 bottom       |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 2 90           |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 3 75           |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 4 50           |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 5 40           |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 6 30           |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 7 20           |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 8 10           |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 9 0            |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 10             |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 11             |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 12             |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |

[illegible]

| VESSEL         |            | PROJECT & LEG                |            | DSDB I.D.          |          | STATION DESIGNATION  |       |
|----------------|------------|------------------------------|------------|--------------------|----------|----------------------|-------|
| R/V Kilo Moana |            | KM0305b                      |            |                    |          |                      |       |
| CONSC CAST #   | 04.31      | 45.51                        |            | 03 May             |          | 23.48                |       |
| DEG            | MIN        | DEG                          | MIN        | DATE               | JD       | TIME                 | GMT   |
| 158            | 04         | 151                          | 45         | 04                 | 04       | 00                   | 06    |
| 19             | N          | 151                          | 45         | 04                 | 04       | 00                   | 06    |
| LATITUDE       |            | LONGITUDE                    |            | DATE               |          | TIME                 |       |
| 19 N           |            | 45.51                        |            | 04 May             |          | 23.48                |       |
| SBE 9+         |            | DATA ON                      |            | Tape/Diskette ID   |          | File Name/Header     |       |
| PRESS SN       |            | START DOWN                   |            |                    |          |                      |       |
| PRI TEMP SN    |            | AT DEPTH                     |            |                    |          |                      |       |
| SEC TEMP SN    |            | AT SURFACE                   |            |                    |          |                      |       |
| PRI COND SN    |            | PAR S/N                      |            | FLUOR S/N          |          | MAX. DEPTH = m       |       |
| SEC COND SN    |            | PAR S/N                      |            | FLUOR S/N          |          | MAX. DEPTH = m       |       |
| TRIP DEPTH     |            | CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA |          | SAMPLE BOTTLE NUMBER |       |
| POS.           | TRIP DEPTH | PRESSURE                     | PRI. TEMP. | SEC. TEMP.         | SALINITY | SAL.                 | NUTR. |
| 1              | bottom     | 5                            |            |                    | 166      | 188                  | 77    |
| 2              | 150        | 6                            |            |                    | 156      |                      | 78    |
| 3              | 125        | 8                            |            |                    | 125      |                      | 79    |
| 4              | 100        | 9                            |            |                    | 100      |                      | 86    |
| 5              | 75         | 16                           |            |                    | 75       |                      | 81    |
| 6              | 50         | 11                           |            |                    | 50       |                      | 82    |
| 7              | 40         | 17                           |            |                    | 40       |                      | 83    |
| 8              | 30         | 20                           |            |                    | 30       |                      | 84    |
| 9              | 15         | 21                           |            |                    | 15       |                      | 85    |
| 10             | 10         | 23                           |            |                    | 10       |                      | 86    |
| 11             | 0          | 24                           |            |                    | 0        |                      | 87    |
| 12             |            |                              |            |                    |          |                      |       |

| VESSEL          |  | PROJECT & LEG |  | DSDB I.D.  |  | STATION DESIGNATION |  |            |  |           |  |                  |  |                  |  |                  |  |               |  |         |  |              |  |              |  |
|-----------------|--|---------------|--|------------|--|---------------------|--|------------|--|-----------|--|------------------|--|------------------|--|------------------|--|---------------|--|---------|--|--------------|--|--------------|--|
| R/V Kilo Moana  |  | KM0305b       |  |            |  |                     |  |            |  |           |  |                  |  |                  |  |                  |  |               |  |         |  |              |  |              |  |
| CONSC CAST #    |  | LATITUDE      |  | LONGITUDE  |  | DATE (JD-)          |  | TIME (GMT) |  | WET BULB  |  | WET BULB         |  | WIND DIRN.       |  | WIND SPD.        |  | CLOUD (amt)   |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 07.52           |  | 47.57         |  | 0127       |  | 0127                |  | 0127       |  | 0127      |  | 0127             |  | 0127             |  | 0127             |  | 0127          |  | 0127    |  | 0127         |  | 0127         |  |
| 0925            |  | 1514          |  | 0404       |  | 0404                |  | 0404       |  | 0404      |  | 0404             |  | 0404             |  | 0404             |  | 0404          |  | 0404    |  | 0404         |  | 0404         |  |
| SBE 9+          |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |
| PRESS SN        |  | START DOWN    |  | AT DEPTH   |  | AT SURFACE          |  | PAR S/N    |  | FLUOR S/N |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION    |  | REMARKS       |  |         |  |              |  |              |  |
| PRI TEMP SN     |  | START DOWN    |  | AT DEPTH   |  | AT SURFACE          |  | PAR S/N    |  | FLUOR S/N |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION    |  | REMARKS       |  |         |  |              |  |              |  |
| SEC TEMP SN     |  | START DOWN    |  | AT DEPTH   |  | AT SURFACE          |  | PAR S/N    |  | FLUOR S/N |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION    |  | REMARKS       |  |         |  |              |  |              |  |
| PRI COND SN     |  | START DOWN    |  | AT DEPTH   |  | AT SURFACE          |  | PAR S/N    |  | FLUOR S/N |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION    |  | REMARKS       |  |         |  |              |  |              |  |
| SEC COND SN     |  | START DOWN    |  | AT DEPTH   |  | AT SURFACE          |  | PAR S/N    |  | FLUOR S/N |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION    |  | REMARKS       |  |         |  |              |  |              |  |
| POS. TRIP DEPTH |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |
| 1 72            |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |
| 2 50            |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |
| 3 30            |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |
| 4 20            |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |
| 5 10            |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |
| 6 0             |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |
| 7               |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |
| 8               |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |
| 9               |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |
| 10              |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |
| 11              |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |
| 12              |  | DATA ON       |  | START DOWN |  | AT DEPTH            |  | AT SURFACE |  | PAR S/N   |  | FLUOR S/N        |  | Tape/Diskette ID |  | File Name/Header |  | DATA LOCATION |  | REMARKS |  |              |  |              |  |

[illegible]

| VESSEL         | PROJECT & LEG | DSDB I.D.                    | STATION DESIGNATION         |
|----------------|---------------|------------------------------|-----------------------------|
| R/V Kilo Moana | KM0305b       |                              | Dek                         |
| CONSC CAST #   | 14.15         | 11.46                        | 0437                        |
| DEG MIN        | 14.23 N       | 15110.68 W                   | TIME (GMT) HR MIN YR MO DAY |
| 494            | 58            | 14                           | 0454                        |
| SBE 9+         |               |                              |                             |
| PRESS SN       |               |                              |                             |
| PRI TEMP SN    |               |                              |                             |
| SEC TEMP SN    |               |                              |                             |
| PRI COND SN    |               |                              |                             |
| SEC COND SN    |               |                              |                             |
| POS.           | TRIP DEPTH    | CTD CONVERTED MONITOR VALUES | SAMPLE BOTTLE DATA          |
| 1              | 62            | PRESSURE                     | SAFETY                      |
| 2              | 50            | 5                            |                             |
| 3              | 30            | 6                            |                             |
| 4              | 10            | 8                            |                             |
| 5              | 15            | 9                            |                             |
| 6              | 16            | 10                           |                             |
| 7              | 0             | 11                           |                             |
| 8              |               | 17                           |                             |
| 9              |               |                              |                             |
| 10             |               |                              |                             |
| 11             |               |                              |                             |
| 12             |               |                              |                             |

| VESSEL          |  |  |  |  |  |  |  |  |  | PROJECT & LEG                |  |  |  |  |  |  |  |  |  | STATION DESIGNATION |  |  |  |  |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|
| R/V Kilo Moana  |  |  |  |  |  |  |  |  |  | KM0305B                      |  |  |  |  |  |  |  |  |  | DSDB ID.            |  |  |  |  |  |  |  |  |  |
| 15.97           |  |  |  |  |  |  |  |  |  | 06.05                        |  |  |  |  |  |  |  |  |  | 0538                |  |  |  |  |  |  |  |  |  |
| CONSC CAST #    |  |  |  |  |  |  |  |  |  | LONGITUDE                    |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| LATITUDE        |  |  |  |  |  |  |  |  |  | DATE                         |  |  |  |  |  |  |  |  |  | WET BULB            |  |  |  |  |  |  |  |  |  |
| DEG MIN         |  |  |  |  |  |  |  |  |  | DAY MO YR                    |  |  |  |  |  |  |  |  |  | DRY BULB            |  |  |  |  |  |  |  |  |  |
| 15.91 N         |  |  |  |  |  |  |  |  |  | 151 06.43 W                  |  |  |  |  |  |  |  |  |  | 9.0                 |  |  |  |  |  |  |  |  |  |
| SBE 9+          |  |  |  |  |  |  |  |  |  | JD/TIME                      |  |  |  |  |  |  |  |  |  | DATA LOCATION       |  |  |  |  |  |  |  |  |  |
| PRESS SN        |  |  |  |  |  |  |  |  |  | DATA ON                      |  |  |  |  |  |  |  |  |  | Tape/Diskette ID    |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN     |  |  |  |  |  |  |  |  |  | START DOWN                   |  |  |  |  |  |  |  |  |  | File Name/Header    |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN     |  |  |  |  |  |  |  |  |  | AT DEPTH                     |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |
| PRI COND SN     |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |
| SEC COND SN     |  |  |  |  |  |  |  |  |  | PAR S/N                      |  |  |  |  |  |  |  |  |  | FLUOR S/N           |  |  |  |  |  |  |  |  |  |
| POS. TRIP DEPTH |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | SAMPLE BOTTLE DATA  |  |  |  |  |  |  |  |  |  |
| 1 6.11m         |  |  |  |  |  |  |  |  |  | PRESSURE                     |  |  |  |  |  |  |  |  |  | PRI. TEMP.          |  |  |  |  |  |  |  |  |  |
| 2 5.0           |  |  |  |  |  |  |  |  |  | 5                            |  |  |  |  |  |  |  |  |  | SEC. TEMP.          |  |  |  |  |  |  |  |  |  |
| 3 3.0           |  |  |  |  |  |  |  |  |  | 6                            |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4 2.0           |  |  |  |  |  |  |  |  |  | 8                            |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5 1.6           |  |  |  |  |  |  |  |  |  | 9                            |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6 0.2           |  |  |  |  |  |  |  |  |  | 10                           |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7               |  |  |  |  |  |  |  |  |  | 11                           |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8               |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9               |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10              |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11              |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12              |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |

[illegible]

| VESSEL         |  | PROJECT & LEG                |  | DSD8 I.D.          |  | STATION DESIGNATION  |  |
|----------------|--|------------------------------|--|--------------------|--|----------------------|--|
| R/V Kilo Moana |  | K0309                        |  | K0309              |  | K0309                |  |
| CONSC CAST #   |  | DATE                         |  | TIME (GMT)         |  | WIND DIRN.           |  |
| 15106.05       |  | 15 MAY 03                    |  | 081608.2           |  | 12410                |  |
| LONGITUDE      |  | LATITUDE                     |  | WET BULB           |  | WIND SPD.            |  |
| 15106.05       |  | 15106.05                     |  | 15106.05           |  | 15106.05             |  |
| DEG            |  | MIN                          |  | SEC                |  | TYPE                 |  |
| 151            |  | 06                           |  | 05                 |  | 15106.05             |  |
| SBE 9+         |  | JD/TIME                      |  | Tape/Diskette ID   |  | REMARKS              |  |
| PRESS SN       |  | DATA ON                      |  | File Name/Header   |  |                      |  |
| PRI TEMP SN    |  | START DOWN                   |  |                    |  |                      |  |
| SEC TEMP SN    |  | AT DEPTH                     |  |                    |  |                      |  |
| PRI COND SN    |  | AT SURFACE                   |  |                    |  |                      |  |
| SEC COND SN    |  | PAR S/N                      |  | FLUOR S/N          |  | MAX. DEPTH = 105 m   |  |
| POS.           |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |
| 1 Bottom       |  | PRESSURE                     |  | PRI TEMP.          |  | SALINITY             |  |
| 2 80           |  |                              |  |                    |  | 191 109              |  |
| 3 60           |  |                              |  |                    |  | 110                  |  |
| 4 40           |  |                              |  |                    |  | 111                  |  |
| 5 30           |  |                              |  |                    |  | 112                  |  |
| 6 20           |  |                              |  |                    |  | 113                  |  |
| 7 10           |  |                              |  |                    |  | 114 F                |  |
| 8 0            |  |                              |  |                    |  | 115 F                |  |
| 9              |  |                              |  |                    |  | 116 F                |  |
| 10             |  |                              |  |                    |  |                      |  |
| 11             |  |                              |  |                    |  |                      |  |
| 12             |  |                              |  |                    |  |                      |  |

5 6 8 9 10 11 17 20 21 23 24 1

| VESSEL         |          | PROJECT & LEG |           | DSDB I.D. |              | STATION DESIGNATION |            |    |               |               |               |                  |                 |                  |                 |                  |              |                  |              |   |
|----------------|----------|---------------|-----------|-----------|--------------|---------------------|------------|----|---------------|---------------|---------------|------------------|-----------------|------------------|-----------------|------------------|--------------|------------------|--------------|---|
| R/V Kilo Moana |          | KM0305b       |           | KM0309    |              | JLB                 |            |    |               |               |               |                  |                 |                  |                 |                  |              |                  |              |   |
| CONSC CAST #   | LATITUDE |               | LONGITUDE |           | DATE JD- 124 |                     | TIME (GMT) |    | DRY BULB (°C) | WET BULB (°C) | PRESSURE (mb) | SEA STATE        | VISIBILITY      | WIND DIRLN (deg) | WIND SPD. (m/s) | CLOUD (amt)      | WEATHER      | BOTTOM DEPTH (m) | STA. NAME/ID |   |
| 058            | 58       | 17            | 44        | N         | 15           | 01                  | 52         | W  | 04            | M             | 03            | 08               | 58              | 07               | 50              | 7                | 3            | 0                | 7            | 3 |
| SBE 9+         | DEG      |               | MIN       | DEG       | MIN          | DAY                 | MO         | YR | HR            | MIN           | SEC           | WIND DIRLN (deg) | WIND SPD. (m/s) | CLOUD (amt)      | WEATHER         | BOTTOM DEPTH (m) | STA. NAME/ID |                  |              |   |
| PRESS SN       | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| PRI TEMP SN    | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| SEC TEMP SN    | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| PRI COND SN    | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| SEC COND SN    | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| TRIP DEPTH     | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| POS.           | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 1              | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 2              | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 3              | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 4              | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 5              | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 6              | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 7              | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 8              | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 9              | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 10             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 11             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 12             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 13             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 14             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 15             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 16             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 17             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 18             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 19             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 20             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 21             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 22             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 23             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 24             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 25             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 26             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 27             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 28             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 29             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 30             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 31             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 32             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 33             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 34             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 35             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 36             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 37             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 38             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 39             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 40             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 41             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 42             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 43             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 44             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 45             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 46             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 47             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 48             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 49             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 50             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 51             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 52             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 53             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 54             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 55             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 56             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 57             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 58             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 59             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 60             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 61             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 62             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 63             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 64             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 65             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 66             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 | 08            | 58            | 07            | 50               | 7               | 3                | 0               | 7                | 3            | 0                | 7            | 3 |
| 67             | 15       |               | 01        | 52        | W            | 04                  | M          | 03 |               |               |               |                  |                 |                  |                 |                  |              |                  |              |   |

| VESSEL         |        | PROJECT & LEG |     | DSD8 I.D. |     | STATION DESIGNATION |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
|----------------|--------|---------------|-----|-----------|-----|---------------------|----|---------------|----|------------------|------|----------|----|-----------|---|------------|-------|-----------|---|-------------|---|---------|------|--------------|--|--------------|--|
| R/V Kilo Moana |        | K00955        |     | KM0309    |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| CONSC          | CAST # | LATITUDE      |     | LONGITUDE |     | DATE                |    | TIME (GMT)    |    | WET BULB         |      | PRESSURE |    | SEA STATE |   | WIND DIRN. |       | WIND SPD. |   | CLOUD (amt) |   | WEATHER |      | BOTTOM DEPTH |  | STA. NAME/ID |  |
|                |        | DEG           | MIN | DEG       | MIN | DAY                 | MO | YR            | HR | MIN              | (°C) | (mb)     | *  | *         | * | (deg)      | (m/s) | *         | * | *           | * | *       |      | (m)          |  |              |  |
| 09             | 58     | 18            | 36  | N         | 150 | 59                  | 04 | MAY           | 03 | 09               | 32   | 07       | 40 | 73        | 7 | 15         | 1     | 10        | * | *           | * | 10097   | U5T4 |              |  |              |  |
| SBE 9+         |        | JD/TIME       |     | DATA ON   |     | Tape/Diskette ID    |    | DATA LOCATION |    | File Name/Header |      | REMARKS  |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| PRESS SN       |        |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| PRI TEMP SN    |        |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| SEC TEMP SN    |        |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| PRI COND SN    |        |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| SEC COND SN    |        |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| TRIP DEPTH     |        |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| POS.           |        |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| 5              | Bottom |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| 6              | 80     |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| 8              | 60     |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| 9              | 40     |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| 10             | 20     |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| 11             | 20     |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| 17             | 10     |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| 20             | 0      |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| 21             |        |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| 23             |        |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| 24             |        |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |
| 1              |        |               |     |           |     |                     |    |               |    |                  |      |          |    |           |   |            |       |           |   |             |   |         |      |              |  |              |  |

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| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0309      |  | DSDB I.D.        |  | STATION DESIGNATION |  |
| CONSC<br>CAST #          |  | DATE JD- 124                 |  | TIME (GMT)       |  | WIND DIRLN          |  |
| LATITUDE                 |  | LONGITUDE                    |  | WET BULB         |  | WIND SPD.           |  |
| DEG MIN                  |  | DEG MIN                      |  | WET BULB (°C)    |  | WIND SPD. (m/s)     |  |
| 1005820.96               |  | 15057.09                     |  | 07.50            |  | 1400                |  |
| N                        |  | W                            |  | °C               |  | (m/s)               |  |
| SBE 9+                   |  | JD/TIME                      |  | Tape/Diskette ID |  | WIND DIRLN (deg)    |  |
| PRESS SN                 |  | DATA ON                      |  | File Name/Header |  | WIND DIRLN (deg)    |  |
| PRI TEMP SN              |  | START DOWN                   |  |                  |  | WIND DIRLN (deg)    |  |
| SEC TEMP SN              |  | AT DEPTH                     |  |                  |  | WIND DIRLN (deg)    |  |
| PRI COND SN              |  | AT SURFACE                   |  |                  |  | WIND DIRLN (deg)    |  |
| SEC COND SN              |  | PAR S/N                      |  | FLUOR S/N        |  | WIND DIRLN (deg)    |  |
| TRIP DEPTH               |  | CTD CONVERTED MONITOR VALUES |  | DATA LOCATION    |  | WIND DIRLN (deg)    |  |
| POS.                     |  | PRESSURE                     |  | PRI TEMP.        |  | WIND DIRLN (deg)    |  |
| 1 Bottom                 |  |                              |  |                  |  | WIND DIRLN (deg)    |  |
| 2 50                     |  |                              |  |                  |  | WIND DIRLN (deg)    |  |
| 3 40                     |  |                              |  |                  |  | WIND DIRLN (deg)    |  |
| 4 30                     |  |                              |  |                  |  | WIND DIRLN (deg)    |  |
| 5 20                     |  |                              |  |                  |  | WIND DIRLN (deg)    |  |
| 6 10                     |  |                              |  |                  |  | WIND DIRLN (deg)    |  |
| 7 0                      |  |                              |  |                  |  | WIND DIRLN (deg)    |  |
| 8                        |  |                              |  |                  |  | WIND DIRLN (deg)    |  |
| 9                        |  |                              |  |                  |  | WIND DIRLN (deg)    |  |
| 10                       |  |                              |  |                  |  | WIND DIRLN (deg)    |  |
| 11                       |  |                              |  |                  |  | WIND DIRLN (deg)    |  |
| 12                       |  |                              |  |                  |  | WIND DIRLN (deg)    |  |

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11' run

| VESSEL<br>R/V Kilo Moana |     | PROJECT & LEG<br>KM0305B |     | DSDB ID.<br>KM0309           |    | STATION DESIGNATION<br><i>BB</i> |    |                  |      |                  |   |          |       |                                                                       |    |                    |    |           |    |                      |    |              |    |              |    |              |     |
|--------------------------|-----|--------------------------|-----|------------------------------|----|----------------------------------|----|------------------|------|------------------|---|----------|-------|-----------------------------------------------------------------------|----|--------------------|----|-----------|----|----------------------|----|--------------|----|--------------|----|--------------|-----|
| CONSC. CAST #            |     | LATITUDE                 |     | LONGITUDE                    |    | DATE                             |    | TIME (GMT)       |      | WET BULB         |   | PRESSURE |       | SEA STATE                                                             |    | WIND DIRN.         |    | WIND SPD. |    | CLOUD (amt)          |    | WEATHER      |    | BOTTOM DEPTH |    | STA. NAME/ID |     |
| DEG                      | MIN | DEG                      | MIN | DAY                          | MO | YR                               | HR | MIN              | (°C) | (mb)             | * | (deg)    | (m/s) | *                                                                     | *  | *                  | *  | *         | *  | (m)                  |    |              |    |              |    |              |     |
| 103                      | 50  | 29                       | 56  | N                            | 15 | 03                               | 6  | 02               | W    | 04               | M | A        | Y     | 03                                                                    | 15 | 05                 | 07 | 50        | 63 | 08                   | 31 | 48           | 75 | 00           | 87 | 5            | TD3 |
| SBE 9+                   |     | TIMES                    |     | JD/TIME                      |    | DATA LOCATION                    |    | Tape/Diskette ID |      | File Name/Header |   | REMARKS  |       |                                                                       |    |                    |    |           |    |                      |    |              |    |              |    |              |     |
| PRESS SN                 |     | DATA ON                  |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    |           |    |                      |    |              |    |              |    |              |     |
| PRI TEMP SN              |     | START DOWN               |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    |           |    |                      |    |              |    |              |    |              |     |
| SEC TEMP SN              |     | AT DEPTH                 |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    |           |    |                      |    |              |    |              |    |              |     |
| PRI COND SN              |     | AT SURFACE               |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    |           |    |                      |    |              |    |              |    |              |     |
| SEC COND SN              |     | PAR S/N                  |     | FLUOR S/N                    |    |                                  |    |                  |      |                  |   |          |       | <input type="checkbox"/> Cleaned air bleed valve<br>MAX. DEPTH = 85 m |    |                    |    |           |    |                      |    |              |    |              |    |              |     |
| POS.                     |     | TRIP DEPTH               |     | CTD CONVERTED MONITOR VALUES |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    | SAMPLE BOTTLE DATA |    |           |    | SAMPLE BOTTLE NUMBER |    |              |    |              |    |              |     |
|                          |     |                          |     | PRESSURE                     |    | PRI. TEMP.                       |    | SEC. TEMP.       |      | SALINITY         |   | SALINITY |       | SALINITY                                                              |    | SAL.               |    | NUTR.     |    | CHL.                 |    | WHIT's NUTR. |    |              |    |              |     |
| 5                        | 1   | Bottom                   |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    | 194                |    | 163       |    |                      |    |              |    |              |    |              |     |
| 6                        | 2   | 60                       |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    | 164       |    |                      |    |              |    |              |    |              |     |
| 8                        | 3   | 40                       |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    | 165       |    |                      |    |              |    |              |    |              |     |
| 9                        | 4   | 30                       |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    | 166       |    |                      |    |              |    |              |    |              |     |
| 10                       | 5   | 20                       |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    | 167F      |    |                      |    |              |    |              |    |              |     |
| 11                       | 6   | 10                       |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    | 168F      |    |                      |    |              |    |              |    |              |     |
| 17                       | 7   | 0                        |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    | 169F      |    |                      |    |              |    |              |    |              |     |
| 20                       | 8   |                          |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    |           |    |                      |    |              |    |              |    |              |     |
| 21                       | 9   |                          |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    |           |    |                      |    |              |    |              |    |              |     |
| 22                       | 10  |                          |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    |           |    |                      |    |              |    |              |    |              |     |
| 23                       | 11  |                          |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    |           |    |                      |    |              |    |              |    |              |     |
| 24                       | 12  |                          |     |                              |    |                                  |    |                  |      |                  |   |          |       |                                                                       |    |                    |    |           |    |                      |    |              |    |              |    |              |     |

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| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KMS03B      |  | DSDB ID.<br>KM0309 |  | STATION DESIGNATION  |  |
|--------------------------|--|------------------------------|--|--------------------|--|----------------------|--|
| CONSC CAST #             |  | LATITUDE                     |  | LONGITUDE          |  | DATE                 |  |
| DEG MIN                  |  | DEG MIN                      |  | DEG MIN            |  | DAY MO YR            |  |
| 1045825.111              |  | 15038.72                     |  | 04                 |  | MAY 03               |  |
| SBE 9+                   |  | TIME                         |  | TIME (GMT)         |  | TIME (GMT)           |  |
| PRESS SN                 |  | DATA ON                      |  | Tape/Diskette ID   |  | File Name/Header     |  |
| PRI TEMP SN              |  | START DOWN                   |  |                    |  |                      |  |
| SEC TEMP SN              |  | AT DEPTH                     |  |                    |  |                      |  |
| PRI COND SN              |  | AT SURFACE                   |  |                    |  |                      |  |
| SEC COND SN              |  | PAR S/N                      |  | FLUOR S/N          |  |                      |  |
| TRIP DEPTH               |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |
| POS.                     |  | PRESSURE                     |  | PRI. TEMP.         |  | SEC. TEMP.           |  |
| 1 Bottom                 |  |                              |  |                    |  |                      |  |
| 2 50                     |  |                              |  |                    |  |                      |  |
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| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0309      |  |            |  | DSD8 I.D.     |  | STATION DESIGNATION |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| CONSC<br>CAST #          |  | LATITUDE                     |  | LONGITUDE  |  | DATE JD- 124  |  | TIME (GMT)          |  | DRY BULB         |  | WET BULB  |  | PRESSURE  |  | SEA STATE |  | WIND DIRN. |  | WIND SPD.       |  | CLOUD (amt) |  | WEATHER   |  | BOTTOM<br>DEPTH |  | STA. NAME/ID |  |
| 1055819.36N              |  | 15041.86W                    |  | 04 MAY 03  |  | 170207.40     |  | 170207.40           |  | 170207.40        |  | 170207.40 |  | 170207.40 |  | 170207.40 |  | 170207.40  |  | 170207.40       |  | 170207.40   |  | 170207.40 |  | 170207.40       |  | 170207.40    |  |
| SBE 9+                   |  | TIMES                        |  | JD/TIME    |  | DATA LOCATION |  | Tape/Diskette ID    |  | File Name/Header |  | REMARKS   |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| PRESS SN                 |  | DATA ON                      |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| PRI TEMP SN              |  | START DOWN                   |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| SEC TEMP SN              |  | AT DEPTH                     |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| PRI COND SN              |  | AT SURFACE                   |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| SEC COND SN              |  | PAR S/N                      |  | FLUOR S/N  |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| POS. TRIP DEPTH          |  | CTD CONVERTED MONITOR VALUES |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| 1 Bottom                 |  | PRESSURE                     |  | PRI. TEMP. |  | SEC. TEMP.    |  | SALINITY            |  | SALINITY         |  | SALINITY  |  | SAL.      |  | NUTR.     |  | CHL.       |  | WHIT'S<br>NUTR. |  |             |  |           |  |                 |  |              |  |
| 2 50                     |  |                              |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| 3 40                     |  |                              |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| 4 30                     |  |                              |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| 5 20                     |  |                              |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| 6 10                     |  |                              |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| 7 0                      |  |                              |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| 8                        |  |                              |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| 9                        |  |                              |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| 10                       |  |                              |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| 11                       |  |                              |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |
| 12                       |  |                              |  |            |  |               |  |                     |  |                  |  |           |  |           |  |           |  |            |  |                 |  |             |  |           |  |                 |  |              |  |

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23  
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5 6 8 9 10 11 17 20 21 22 23 24

5 6 7 8 9 10 11 17 20 21 22 23 24

|   |   |   |   |    |    |    |    |    |    |    |    |
|---|---|---|---|----|----|----|----|----|----|----|----|
| 5 | 6 | 8 | 9 | 10 | 11 | 17 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|----|----|----|----|----|----|----|----|

| VESSEL         |         | PROJECT & LEG |  | DSD8 ID.   |  | STATION DESIGNATION |  |            |  |           |  |             |  |            |  |              |  |              |  |
|----------------|---------|---------------|--|------------|--|---------------------|--|------------|--|-----------|--|-------------|--|------------|--|--------------|--|--------------|--|
| R/V Kilo Moana |         | KM0305b       |  | KM03049    |  |                     |  |            |  |           |  |             |  |            |  |              |  |              |  |
| CONSC CAST #   | 44.08   | 47.29         |  | 2104       |  | SEA STATE           |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER    |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 | 36 W 44 7     |  | TIME (GMT) |  | WET BULB            |  | DRY BULB   |  | PRESSURE  |  | VISIBILITY  |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt)  |  |
| DEG MIN        | 15 44 7 |               |  |            |  |                     |  |            |  |           |  |             |  |            |  |              |  |              |  |

| VESSEL         |            | PROJECT & LEG                |    | IDSB ID.   |            | STATION DESIGNATION |  |
|----------------|------------|------------------------------|----|------------|------------|---------------------|--|
| R/V Kilo Moana |            | KM0305b                      |    |            |            |                     |  |
| CONSC CAST #   | 40.47      | 49.34                        |    | TIME (GMT) |            | 2244                |  |
| DEG            | MIN        | LONGITUDE                    |    | HR         | MIN        |                     |  |
| 11             | 45         | 13                           | 49 | 22         | 45         |                     |  |
| 12             | 46         | 14                           | 50 | 23         | 46         |                     |  |
| SBE 9+         |            | DATE                         |    | YR         | MO         | DAY                 |  |
|                |            | 2004                         |    | 03         | 05         | 14                  |  |
| PRESS SN       |            | DATA ON                      |    |            |            |                     |  |
| PRI TEMP SN    |            | START DOWN                   |    |            |            |                     |  |
| SEC TEMP SN    |            | AT DEPTH                     |    |            |            |                     |  |
| PRI COND SN    |            | AT SURFACE                   |    |            |            |                     |  |
| SEC COND SN    |            | PAR S/N                      |    | FLUOR S/N  |            |                     |  |
| TRIP DEPTH     |            | CTD CONVERTED MONITOR VALUES |    |            |            |                     |  |
| POS.           | TRIP DEPTH | PRESSURE                     |    | PRI. TEMP. | SEC. TEMP. | SALINITY            |  |
| 1              | bottom     | 50                           |    |            |            |                     |  |
| 2              | 100        | 60                           |    |            |            |                     |  |
| 3              | 80         | 80                           |    |            |            |                     |  |
| 4              | 60         | 90                           |    |            |            |                     |  |
| 5              | 40         | 100                          |    |            |            |                     |  |
| 6              | 20         | 110                          |    |            |            |                     |  |
| 7              | 10         | 120                          |    |            |            |                     |  |
| 8              | 0          | 130                          |    |            |            |                     |  |
| 9              |            |                              |    |            |            |                     |  |
| 10             |            |                              |    |            |            |                     |  |
| 11             |            |                              |    |            |            |                     |  |
| 12             |            |                              |    |            |            |                     |  |

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| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KMO305b     |  | DSD8 I.D.  |  | STATION DESIGNATION |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
|--------------------------|--|------------------------------|--|------------|--|---------------------|--|------------------|--|------------------|--|------------|--|----------|--|----------|--|-----------|--|--------------|--|------------|--|-----------|--|-------------|--|---------|--|--------------|--|--------------|--|
| CONSC CAST #             |  | 51.64                        |  | 52.04      |  | LATITUDE            |  | LONGITUDE        |  | DATE JD          |  | TIME (GMT) |  | WET BULB |  | PRESSURE |  | SEA STATE |  | VISIBILITY   |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 11257511.57N             |  | 15452.91W                    |  | 5 MAY 03   |  | 0010                |  | 7.40             |  | 9.5              |  | 0010       |  | 7.40     |  | 0010     |  | 4         |  | 4            |  | 199        |  | 199       |  | 661         |  | 661     |  | 84           |  | 84           |  |
| SBE 9+                   |  | TIMES                        |  | JD/TIME    |  | DATA LOCATION       |  | Tape/Diskette ID |  | File Name/Header |  | REMARKS    |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRESS SN                 |  | DATA ON                      |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI TEMP SN              |  | START DOWN                   |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC TEMP SN              |  | AT DEPTH                     |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI COND SN              |  | AT SURFACE                   |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC COND SN              |  | PAR S/N                      |  | FLUOR S/N  |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| POS. TRIP DEPTH          |  | CTD CONVERTED MONITOR VALUES |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 1 600m                   |  | PRESSURE                     |  | PRI. TEMP. |  | SEC. TEMP.          |  | SALINITY         |  | SALINITY         |  | SALINITY   |  | SAL.     |  | NUTR.    |  | CHL.      |  | WHIT'S NUTR. |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 2 50                     |  | 5-                           |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 3 40                     |  | 6-                           |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 4 20                     |  | 8-                           |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 5 10                     |  | 9-                           |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 6 0                      |  | 10-                          |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 7                        |  | 11-                          |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 8                        |  |                              |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 9                        |  |                              |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 10                       |  |                              |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 11                       |  |                              |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 12                       |  |                              |  |            |  |                     |  |                  |  |                  |  |            |  |          |  |          |  |           |  |              |  |            |  |           |  |             |  |         |  |              |  |              |  |

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| VESSEL          |  |  |  |  |  |  |  |  |  | PROJECT & LEG                |  |  |  |  |  |  |  |  |  | STATION DESIGNATION |  |  |  |  |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|
| R/V Kilo Moana  |  |  |  |  |  |  |  |  |  | KM0305b                      |  |  |  |  |  |  |  |  |  | DSDB ID.            |  |  |  |  |  |  |  |  |  |
| 48.59           |  |  |  |  |  |  |  |  |  | 29.91                        |  |  |  |  |  |  |  |  |  | 0535                |  |  |  |  |  |  |  |  |  |
| CONSC CAST #    |  |  |  |  |  |  |  |  |  | LATITUDE                     |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| 1155248.48N     |  |  |  |  |  |  |  |  |  | 15430.05W                    |  |  |  |  |  |  |  |  |  | 0542                |  |  |  |  |  |  |  |  |  |
| SBE 9+          |  |  |  |  |  |  |  |  |  | LONGITUDE                    |  |  |  |  |  |  |  |  |  | WET BULB            |  |  |  |  |  |  |  |  |  |
| PRESS SN        |  |  |  |  |  |  |  |  |  | DATE ID=                     |  |  |  |  |  |  |  |  |  | SEA STATE           |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN     |  |  |  |  |  |  |  |  |  | TIME                         |  |  |  |  |  |  |  |  |  | WIND DIRLN          |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN     |  |  |  |  |  |  |  |  |  | DATA ON                      |  |  |  |  |  |  |  |  |  | WIND SPD.           |  |  |  |  |  |  |  |  |  |
| PRI COND SN     |  |  |  |  |  |  |  |  |  | START DOWN                   |  |  |  |  |  |  |  |  |  | CLOUD (amt)         |  |  |  |  |  |  |  |  |  |
| SEC COND SN     |  |  |  |  |  |  |  |  |  | AT DEPTH                     |  |  |  |  |  |  |  |  |  | WEATHER             |  |  |  |  |  |  |  |  |  |
| POS. TRIP DEPTH |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  | STA. NAME/ID        |  |  |  |  |  |  |  |  |  |
| 1 6010m         |  |  |  |  |  |  |  |  |  | PAR S/N                      |  |  |  |  |  |  |  |  |  | 90                  |  |  |  |  |  |  |  |  |  |
| 2 60            |  |  |  |  |  |  |  |  |  | FLUOR S/N                    |  |  |  |  |  |  |  |  |  | 13                  |  |  |  |  |  |  |  |  |  |
| 3 50            |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | 2                   |  |  |  |  |  |  |  |  |  |
| 4 40            |  |  |  |  |  |  |  |  |  | PRESSURE                     |  |  |  |  |  |  |  |  |  | 3                   |  |  |  |  |  |  |  |  |  |
| 5 30            |  |  |  |  |  |  |  |  |  | PRI. TEMP.                   |  |  |  |  |  |  |  |  |  | 4                   |  |  |  |  |  |  |  |  |  |
| 6 20            |  |  |  |  |  |  |  |  |  | SEC. TEMP.                   |  |  |  |  |  |  |  |  |  | 5                   |  |  |  |  |  |  |  |  |  |
| 7 10            |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | 6                   |  |  |  |  |  |  |  |  |  |
| 8 0             |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | 7                   |  |  |  |  |  |  |  |  |  |
| 9               |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | 8                   |  |  |  |  |  |  |  |  |  |
| 10              |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | 9                   |  |  |  |  |  |  |  |  |  |
| 11              |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | 10                  |  |  |  |  |  |  |  |  |  |
| 12              |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | 11                  |  |  |  |  |  |  |  |  |  |

| VESSEL          |  |  |  |  |  |  |  |  |  | PROJECT & LEG                |  |  |  |  |  |  |  |  |  | STATION DESIGNATION     |  |  |  |  |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|-------------------------|--|--|--|--|--|--|--|--|--|
| R/V Kilo Moana  |  |  |  |  |  |  |  |  |  | KMO305b                      |  |  |  |  |  |  |  |  |  | DSD8 I.D.               |  |  |  |  |  |  |  |  |  |
| CONSC CAST #    |  |  |  |  |  |  |  |  |  | 52.74                        |  |  |  |  |  |  |  |  |  | 27.47                   |  |  |  |  |  |  |  |  |  |
| LATITUDE        |  |  |  |  |  |  |  |  |  | LONGITUDE                    |  |  |  |  |  |  |  |  |  | DATE JD                 |  |  |  |  |  |  |  |  |  |
| DEG MIN         |  |  |  |  |  |  |  |  |  | DEG MIN                      |  |  |  |  |  |  |  |  |  | DAY MO YR               |  |  |  |  |  |  |  |  |  |
| 11 6 57 52.58 N |  |  |  |  |  |  |  |  |  | 15 4 27.67 W                 |  |  |  |  |  |  |  |  |  | 05 MAY 03               |  |  |  |  |  |  |  |  |  |
| SBE 9+          |  |  |  |  |  |  |  |  |  | TIME (GMT)                   |  |  |  |  |  |  |  |  |  | 4653                    |  |  |  |  |  |  |  |  |  |
| PRESS SN        |  |  |  |  |  |  |  |  |  | TIME (hr min)                |  |  |  |  |  |  |  |  |  | 06 59                   |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN     |  |  |  |  |  |  |  |  |  | Tape/Diskette ID             |  |  |  |  |  |  |  |  |  | File Name/Header        |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN     |  |  |  |  |  |  |  |  |  | DATA LOCATION                |  |  |  |  |  |  |  |  |  | REMARKS                 |  |  |  |  |  |  |  |  |  |
| PRI COND SN     |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  | Cleared air bleed valve |  |  |  |  |  |  |  |  |  |
| SEC COND SN     |  |  |  |  |  |  |  |  |  | PAR S/N                      |  |  |  |  |  |  |  |  |  | MAX. DEPTH = m          |  |  |  |  |  |  |  |  |  |
| POS. TRIP DEPTH |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | SAMPLE BOTTLE DATA      |  |  |  |  |  |  |  |  |  |
| 1 bottom        |  |  |  |  |  |  |  |  |  | N13 beam # PRESSURE          |  |  |  |  |  |  |  |  |  | SALINITY                |  |  |  |  |  |  |  |  |  |
| 2 80            |  |  |  |  |  |  |  |  |  | 51                           |  |  |  |  |  |  |  |  |  | 1 246                   |  |  |  |  |  |  |  |  |  |
| 3 60            |  |  |  |  |  |  |  |  |  | 61                           |  |  |  |  |  |  |  |  |  | 2 90                    |  |  |  |  |  |  |  |  |  |
| 4 50            |  |  |  |  |  |  |  |  |  | 81                           |  |  |  |  |  |  |  |  |  | 3 91                    |  |  |  |  |  |  |  |  |  |
| 5 40            |  |  |  |  |  |  |  |  |  | 91                           |  |  |  |  |  |  |  |  |  | 4 92                    |  |  |  |  |  |  |  |  |  |
| 6 30            |  |  |  |  |  |  |  |  |  | 101                          |  |  |  |  |  |  |  |  |  | 5 93 f                  |  |  |  |  |  |  |  |  |  |
| 7 20            |  |  |  |  |  |  |  |  |  | 111                          |  |  |  |  |  |  |  |  |  | 6 94 f                  |  |  |  |  |  |  |  |  |  |
| 8 10            |  |  |  |  |  |  |  |  |  | 171                          |  |  |  |  |  |  |  |  |  | 7 95 f                  |  |  |  |  |  |  |  |  |  |
| 9 0             |  |  |  |  |  |  |  |  |  | 201                          |  |  |  |  |  |  |  |  |  | 8 96 f                  |  |  |  |  |  |  |  |  |  |
| 10              |  |  |  |  |  |  |  |  |  | 211                          |  |  |  |  |  |  |  |  |  | 9 97 f                  |  |  |  |  |  |  |  |  |  |
| 11              |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
| 12              |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |

may have leaked (probably not)

|    |    |        |
|----|----|--------|
| 5  | 1  | Bottom |
| 6  | 2  | 150    |
| 8  | 3  | 125    |
| 9  | 4  | 100    |
| 10 | 5  | 75     |
| 11 | 6  | 50     |
| 17 | 7  | 40     |
| 20 | 8  | 30     |
| 21 | 9  | 20     |
| 22 | 10 | 10     |
| 23 | 11 | 0      |
| 24 | 12 |        |



|   |   |   |   |    |    |    |    |    |    |    |    |
|---|---|---|---|----|----|----|----|----|----|----|----|
| 5 | 9 | 8 | 5 | 10 | 11 | 17 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|----|----|----|----|----|----|----|----|

|                              |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
|------------------------------|--|--|--|--|--|--|--|--|--|-------------------------|--|--|--|--|--|--|--|--|--|-----------------------------------|--|--|--|--|--|--|--|--|--|
| VESSEL<br>R/V Kilo Moana     |  |  |  |  |  |  |  |  |  | PROJECT & LEG<br>KMO308 |  |  |  |  |  |  |  |  |  | STATION DESIGNATION<br><i>113</i> |  |  |  |  |  |  |  |  |  |
| DATE JD- 125                 |  |  |  |  |  |  |  |  |  | DSDB ID.                |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| LATITUDE                     |  |  |  |  |  |  |  |  |  | LONGITUDE               |  |  |  |  |  |  |  |  |  | TIME (GMT)                        |  |  |  |  |  |  |  |  |  |
| DEG MIN                      |  |  |  |  |  |  |  |  |  | DEG MIN                 |  |  |  |  |  |  |  |  |  | HR MIN                            |  |  |  |  |  |  |  |  |  |
| 12 15 8 13 30 N              |  |  |  |  |  |  |  |  |  | 15 0 19 50 W            |  |  |  |  |  |  |  |  |  | 13 15 0 10 3                      |  |  |  |  |  |  |  |  |  |
| CONSC CAST #                 |  |  |  |  |  |  |  |  |  | WET BULB (°C)           |  |  |  |  |  |  |  |  |  | WIND DIRN.                        |  |  |  |  |  |  |  |  |  |
|                              |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| SBE 9+                       |  |  |  |  |  |  |  |  |  | DRY BULB (°C)           |  |  |  |  |  |  |  |  |  | WIND SPD. (m/s)                   |  |  |  |  |  |  |  |  |  |
| 12 15 8 13 30 N              |  |  |  |  |  |  |  |  |  | 05 51 23 08 4           |  |  |  |  |  |  |  |  |  | 22 8 7 2 0 0 8 4                  |  |  |  |  |  |  |  |  |  |
| PRESS SN                     |  |  |  |  |  |  |  |  |  | PRESSURE (mb)           |  |  |  |  |  |  |  |  |  | SEA STATE                         |  |  |  |  |  |  |  |  |  |
|                              |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN                  |  |  |  |  |  |  |  |  |  | WIND DIRN. (deg)        |  |  |  |  |  |  |  |  |  | WIND SPD. (m/s)                   |  |  |  |  |  |  |  |  |  |
|                              |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN                  |  |  |  |  |  |  |  |  |  | WIND DIRN. (deg)        |  |  |  |  |  |  |  |  |  | WIND SPD. (m/s)                   |  |  |  |  |  |  |  |  |  |
|                              |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| PRI COND SN                  |  |  |  |  |  |  |  |  |  | WIND DIRN. (deg)        |  |  |  |  |  |  |  |  |  | WIND SPD. (m/s)                   |  |  |  |  |  |  |  |  |  |
|                              |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| SEC COND SN                  |  |  |  |  |  |  |  |  |  | WIND DIRN. (deg)        |  |  |  |  |  |  |  |  |  | WIND SPD. (m/s)                   |  |  |  |  |  |  |  |  |  |
|                              |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| TRIP DEPTH                   |  |  |  |  |  |  |  |  |  | DATA LOCATION           |  |  |  |  |  |  |  |  |  | REMARKS                           |  |  |  |  |  |  |  |  |  |
|                              |  |  |  |  |  |  |  |  |  | File Name/Header        |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| POS.                         |  |  |  |  |  |  |  |  |  | Tape/Diskette ID        |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
|                              |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | SAMPLE BOTTLE DATA      |  |  |  |  |  |  |  |  |  | SAMPLE BOTTLE NUMBER              |  |  |  |  |  |  |  |  |  |
| PRESSURE                     |  |  |  |  |  |  |  |  |  | SALINITY                |  |  |  |  |  |  |  |  |  | SALINITY                          |  |  |  |  |  |  |  |  |  |
| PRI. TEMP.                   |  |  |  |  |  |  |  |  |  | SEC. TEMP.              |  |  |  |  |  |  |  |  |  | SAL                               |  |  |  |  |  |  |  |  |  |
| 1 Bottom                     |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  | 142                               |  |  |  |  |  |  |  |  |  |
| 2 60                         |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  | 143                               |  |  |  |  |  |  |  |  |  |
| 3 40                         |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  | 144                               |  |  |  |  |  |  |  |  |  |
| 4 30                         |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  | 145                               |  |  |  |  |  |  |  |  |  |
| 5 20                         |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  | 146                               |  |  |  |  |  |  |  |  |  |
| 6 10                         |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  | 147                               |  |  |  |  |  |  |  |  |  |
| 7 0                          |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  | 148                               |  |  |  |  |  |  |  |  |  |
| 8                            |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 9                            |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 10                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 11                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 12                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 13                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 14                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 15                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 16                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 17                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 18                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 19                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 20                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 21                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 22                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 23                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |
| 24                           |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |

5 6 8 9 10 11 17 20 21 22 23 24

|                          |  |                         |  |                  |  |                     |  |                                                                                   |  |
|--------------------------|--|-------------------------|--|------------------|--|---------------------|--|-----------------------------------------------------------------------------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>LM0309 |  | DSDB I.D.        |  | STATION DESIGNATION |  |  |  |
| CONSC CAST #             |  | LATITUDE                |  | LONGITUDE        |  | DATE                |  | TIME (GMT)                                                                        |  |
| DEG MIN                  |  | DEG MIN                 |  | DAY MO YR        |  | HR MIN              |  | DRY BULB (°C)                                                                     |  |
| 1225817.94 N             |  | 15017.96 W              |  | 05 MAY 03        |  | 142306              |  | .803                                                                              |  |
| SBE 9+                   |  | TIMES                   |  | JD/TIME          |  | DATA LOCATION       |  | REMARKS                                                                           |  |
| PRESS SN                 |  | DATA ON                 |  | Tape/Diskette ID |  | File Name/Header    |  |                                                                                   |  |
| PRI TEMP SN              |  | START DOWN              |  |                  |  |                     |  |                                                                                   |  |
| SEC TEMP SN              |  | AT DEPTH                |  |                  |  |                     |  |                                                                                   |  |
| PRI COND SN              |  | AT SURFACE              |  |                  |  |                     |  |                                                                                   |  |
| SEC COND SN              |  | PAR S/N                 |  | FLUOR S/N        |  | MAX. DEPTH = 50 m   |  | <input type="checkbox"/> Cleaned air bleed valve                                  |  |
| POS. TRIP DEPTH          |  | PRESSURE                |  | PRI. TEMP.       |  | SEC. TEMP.          |  | SALINITY                                                                          |  |
| 5 Bottom                 |  |                         |  |                  |  |                     |  | SAL. 203                                                                          |  |
| 6 40                     |  |                         |  |                  |  |                     |  | NUTR. 149                                                                         |  |
| 8 30                     |  |                         |  |                  |  |                     |  | CHL. 150                                                                          |  |
| 9 20                     |  |                         |  |                  |  |                     |  | 151                                                                               |  |
| 10 10                    |  |                         |  |                  |  |                     |  | 152                                                                               |  |
| 11 0                     |  |                         |  |                  |  |                     |  | 153                                                                               |  |
| 17                       |  |                         |  |                  |  |                     |  | 154                                                                               |  |
| 20                       |  |                         |  |                  |  |                     |  |                                                                                   |  |
| 21                       |  |                         |  |                  |  |                     |  |                                                                                   |  |
| 22                       |  |                         |  |                  |  |                     |  |                                                                                   |  |
| 23                       |  |                         |  |                  |  |                     |  |                                                                                   |  |
| 24                       |  |                         |  |                  |  |                     |  |                                                                                   |  |

5 6 8 9 10 11 17 20 21 22 23 24

5 6 8 9 10 11 17 20 21 22 23 24

[illegible]

| VESSEL         |            | PROJECT & LEG |                              | DSDB I.D. |                    | STATION DESIGNATION |                      |
|----------------|------------|---------------|------------------------------|-----------|--------------------|---------------------|----------------------|
| R/V Kilo Moana |            | KM0309        |                              |           |                    | 113                 |                      |
| CONSCAST #     | LATITUDE   |               | LONGITUDE                    |           | DATE               |                     | TIME (GMT)           |
|                | DEG        | MIN           | DEG                          | MIN       | DAY                | MO                  | YR                   |
| 1255810.39N    | 14         | 40            | 14                           | 40        | 05                 | 05                  | 18                   |
| SBE 9+         | JD/TIME    |               | JD/TIME                      |           | TIME (GMT)         |                     | TIME (GMT)           |
|                | DEG        | MIN           | DEG                          | MIN       | DAY                | MO                  | YR                   |
| 1255810.39N    | 14         | 40            | 14                           | 40        | 05                 | 05                  | 18                   |
| PRESS SN       | DATA ON    |               | DATA ON                      |           | Tape/Diskette ID   |                     | File Name/Header     |
| PRI TEMP SN    | START DOWN |               | START DOWN                   |           |                    |                     |                      |
| SEC TEMP SN    | AT DEPTH   |               | AT DEPTH                     |           |                    |                     |                      |
| PRI COND SN    | AT SURFACE |               | AT SURFACE                   |           |                    |                     |                      |
| SEC COND SN    | PAR S/N    |               | PAR S/N                      |           | FLUOR S/N          |                     |                      |
|                | TRIP DEPTH |               | CTD CONVERTED MONITOR VALUES |           | SAMPLE BOTTLE DATA |                     | SAMPLE BOTTLE NUMBER |
| POS.           | TRIP DEPTH | PRESSURE      | PRL TEMP.                    | SEC. TEMP | SALINITY           | SALINITY            | SAL                  |
| 1              | Bottom     |               |                              |           |                    |                     | 167                  |
| 2              | 80         |               |                              |           |                    |                     | 168                  |
| 3              | 60         |               |                              |           |                    |                     | 169                  |
| 4              | 40         |               |                              |           |                    |                     | 170                  |
| 5              | 30         |               |                              |           |                    |                     | 171                  |
| 6              | 20         |               |                              |           |                    |                     | 172                  |
| 7              | 10         |               |                              |           |                    |                     | 173                  |
| 8              | 0          |               |                              |           |                    |                     | 174                  |
| 9              |            |               |                              |           |                    |                     | 175                  |
| 10             |            |               |                              |           |                    |                     | 176                  |
| 11             |            |               |                              |           |                    |                     | 177                  |
| 12             |            |               |                              |           |                    |                     | 178                  |
| 13             |            |               |                              |           |                    |                     | 179                  |
| 14             |            |               |                              |           |                    |                     | 180                  |
| 15             |            |               |                              |           |                    |                     | 181                  |
| 16             |            |               |                              |           |                    |                     | 182                  |
| 17             |            |               |                              |           |                    |                     | 183                  |
| 18             |            |               |                              |           |                    |                     | 184                  |
| 19             |            |               |                              |           |                    |                     | 185                  |
| 20             |            |               |                              |           |                    |                     | 186                  |
| 21             |            |               |                              |           |                    |                     | 187                  |
| 22             |            |               |                              |           |                    |                     | 188                  |
| 23             |            |               |                              |           |                    |                     | 189                  |
| 24             |            |               |                              |           |                    |                     | 190                  |

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| VESSEL          |          | PROJECT & LEG |      | DSDB I.D.                    |            | STATION DESIGNATION |            |                      |             |            |                        |              |     |             |      |             |       |                        |    |                        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|----------|---------------|------|------------------------------|------------|---------------------|------------|----------------------|-------------|------------|------------------------|--------------|-----|-------------|------|-------------|-------|------------------------|----|------------------------|---|--------------|---|---|---|---|---|---|---|---|---|---|---|---|
| R/V Kilo Moana  |          | KM0305b       |      | KM0309                       |            |                     |            |                      |             |            |                        |              |     |             |      |             |       |                        |    |                        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| CONSC<br>CAST # | LATITUDE |               | DATE |                              | TIME (GMT) | WET BULB            | WIND DIRN. | WIND SPD.            | CLOUD (amt) | WEATHER    | BOTTOM<br>DEPTH<br>(m) | STA. NAME/ID |     |             |      |             |       |                        |    |                        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
|                 | DEG      | MIN           | DEG  | MIN                          | DAY        | MO                  | YR         | HR                   |             |            |                        |              | MIN | (°C)        | (°C) | (deg)       | (m/s) |                        |    |                        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| 126             | 58       | 07            | 23   | N                            | 14         | 9                   | 4          | 4                    | 0           | 9          | W                      | 05           | M   | A           | Y    | 03          | 19    | 45                     | 07 | 20                     | 4 | 1            | 6 | 3 | 7 | 2 | 0 | 2 | 1 | 9 | S | T | B | 3 |
| SBE 9+          |          | JD/TIME       |      | DATE                         |            | TIME (GMT)          |            | WET BULB             |             | WIND DIRN. |                        | WIND SPD.    |     | CLOUD (amt) |      | WEATHER     |       | BOTTOM<br>DEPTH<br>(m) |    | STA. NAME/ID           |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| PRESS SN        |          | DATA ON       |      | Tape/Diskette ID             |            | File Name/Header    |            | WET BULB             |             | WIND DIRN. |                        | WIND SPD.    |     | CLOUD (amt) |      | WEATHER     |       | BOTTOM<br>DEPTH<br>(m) |    | STA. NAME/ID           |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| PRI TEMP SN     |          | START DOWN    |      | Tape/Diskette ID             |            | File Name/Header    |            | WET BULB             |             | WIND DIRN. |                        | WIND SPD.    |     | CLOUD (amt) |      | WEATHER     |       | BOTTOM<br>DEPTH<br>(m) |    | STA. NAME/ID           |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| SEC TEMP SN     |          | AT DEPTH      |      | Tape/Diskette ID             |            | File Name/Header    |            | WET BULB             |             | WIND DIRN. |                        | WIND SPD.    |     | CLOUD (amt) |      | WEATHER     |       | BOTTOM<br>DEPTH<br>(m) |    | STA. NAME/ID           |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| PRI COND SN     |          | AT SURFACE    |      | Tape/Diskette ID             |            | File Name/Header    |            | WET BULB             |             | WIND DIRN. |                        | WIND SPD.    |     | CLOUD (amt) |      | WEATHER     |       | BOTTOM<br>DEPTH<br>(m) |    | STA. NAME/ID           |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| SEC COND SN     |          | PAR S/N       |      | FLUOR S/N                    |            | MAX. DEPTH = 217 m  |            | WET BULB             |             | WIND DIRN. |                        | WIND SPD.    |     | CLOUD (amt) |      | WEATHER     |       | BOTTOM<br>DEPTH<br>(m) |    | STA. NAME/ID           |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| TRIP DEPTH      |          | POS.          |      | CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA  |            | SAMPLE BOTTLE NUMBER |             | WET BULB   |                        | WIND DIRN.   |     | WIND SPD.   |      | CLOUD (amt) |       | WEATHER                |    | BOTTOM<br>DEPTH<br>(m) |   | STA. NAME/ID |   |   |   |   |   |   |   |   |   |   |   |   |
| 5               |          | Bottom        |      | PRESSURE                     |            | PRI. TEMP.          |            | SEC. TEMP.           |             | SALINITY   |                        | SALINITY     |     | SAL.        |      | NUTR.       |       | CHL.                   |    | WHIT'S<br>NUTR.        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| 6               |          | 175           |      | PRESSURE                     |            | PRI. TEMP.          |            | SEC. TEMP.           |             | SALINITY   |                        | SALINITY     |     | SAL.        |      | NUTR.       |       | CHL.                   |    | WHIT'S<br>NUTR.        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| 8               |          | 150           |      | PRESSURE                     |            | PRI. TEMP.          |            | SEC. TEMP.           |             | SALINITY   |                        | SALINITY     |     | SAL.        |      | NUTR.       |       | CHL.                   |    | WHIT'S<br>NUTR.        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| 9               |          | 125           |      | PRESSURE                     |            | PRI. TEMP.          |            | SEC. TEMP.           |             | SALINITY   |                        | SALINITY     |     | SAL.        |      | NUTR.       |       | CHL.                   |    | WHIT'S<br>NUTR.        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| 10              |          | 100           |      | PRESSURE                     |            | PRI. TEMP.          |            | SEC. TEMP.           |             | SALINITY   |                        | SALINITY     |     | SAL.        |      | NUTR.       |       | CHL.                   |    | WHIT'S<br>NUTR.        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| 11              |          | 75            |      | PRESSURE                     |            | PRI. TEMP.          |            | SEC. TEMP.           |             | SALINITY   |                        | SALINITY     |     | SAL.        |      | NUTR.       |       | CHL.                   |    | WHIT'S<br>NUTR.        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| 17              |          | 50            |      | PRESSURE                     |            | PRI. TEMP.          |            | SEC. TEMP.           |             | SALINITY   |                        | SALINITY     |     | SAL.        |      | NUTR.       |       | CHL.                   |    | WHIT'S<br>NUTR.        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| 20              |          | 40            |      | PRESSURE                     |            | PRI. TEMP.          |            | SEC. TEMP.           |             | SALINITY   |                        | SALINITY     |     | SAL.        |      | NUTR.       |       | CHL.                   |    | WHIT'S<br>NUTR.        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| 21              |          | 30            |      | PRESSURE                     |            | PRI. TEMP.          |            | SEC. TEMP.           |             | SALINITY   |                        | SALINITY     |     | SAL.        |      | NUTR.       |       | CHL.                   |    | WHIT'S<br>NUTR.        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| 22              |          | 20            |      | PRESSURE                     |            | PRI. TEMP.          |            | SEC. TEMP.           |             | SALINITY   |                        | SALINITY     |     | SAL.        |      | NUTR.       |       | CHL.                   |    | WHIT'S<br>NUTR.        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| 23              |          | 10            |      | PRESSURE                     |            | PRI. TEMP.          |            | SEC. TEMP.           |             | SALINITY   |                        | SALINITY     |     | SAL.        |      | NUTR.       |       | CHL.                   |    | WHIT'S<br>NUTR.        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |
| 24              |          | 0             |      | PRESSURE                     |            | PRI. TEMP.          |            | SEC. TEMP.           |             | SALINITY   |                        | SALINITY     |     | SAL.        |      | NUTR.       |       | CHL.                   |    | WHIT'S<br>NUTR.        |   |              |   |   |   |   |   |   |   |   |   |   |   |   |

| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KMD305b     |  |            |  | DSD8 I.D.          |  |          |  | STATION DESIGNATION     |  |       |  |      |  |              |  |
|--------------------------|--|------------------------------|--|------------|--|--------------------|--|----------|--|-------------------------|--|-------|--|------|--|--------------|--|
| CONSC CAST #             |  | 49.46                        |  |            |  | 2116               |  |          |  | 242                     |  |       |  |      |  |              |  |
| LATITUDE                 |  | LONGITUDE                    |  |            |  | TIME (GMT)         |  |          |  | WET BULB                |  |       |  |      |  |              |  |
| DEG MIN                  |  | DEG MIN                      |  |            |  | HR MIN             |  |          |  | WET BULB (°C)           |  |       |  |      |  |              |  |
| 1275843.43N              |  | 14949.34W                    |  |            |  | 2127               |  |          |  | 7.4                     |  |       |  |      |  |              |  |
| SBE 9+                   |  | DATE JD=                     |  |            |  | DRY BULB           |  |          |  | PRESSURE                |  |       |  |      |  |              |  |
|                          |  | DAY MO YR                    |  |            |  | DRY BULB (°C)      |  |          |  | (mb)                    |  |       |  |      |  |              |  |
|                          |  | 14949.34 MAY 03              |  |            |  | 10.3               |  |          |  | 16.4                    |  |       |  |      |  |              |  |
| TIMES                    |  | JD/TIME                      |  |            |  | DATA LOCATION      |  |          |  | REMARKS                 |  |       |  |      |  |              |  |
| DATA ON                  |  |                              |  |            |  | Tape/Diskette ID   |  |          |  | File Name/Header        |  |       |  |      |  |              |  |
| START DOWN               |  |                              |  |            |  |                    |  |          |  |                         |  |       |  |      |  |              |  |
| AT DEPTH                 |  |                              |  |            |  |                    |  |          |  |                         |  |       |  |      |  |              |  |
| AT SURFACE               |  |                              |  |            |  |                    |  |          |  |                         |  |       |  |      |  |              |  |
| PAR S/N                  |  | FLUOR S/N                    |  |            |  | MAX. DEPTH =       |  |          |  | m                       |  |       |  |      |  |              |  |
| SEC COND SN              |  |                              |  |            |  |                    |  |          |  | Cleaned air bleed valve |  |       |  |      |  |              |  |
| TRIP DEPTH               |  |                              |  |            |  |                    |  |          |  |                         |  |       |  |      |  |              |  |
| POS.                     |  | CTD CONVERTED MONITOR VALUES |  |            |  | SAMPLE BOTTLE DATA |  |          |  | SAMPLE BOTTLE NUMBER    |  |       |  |      |  |              |  |
| Niskin #                 |  | PRESSURE                     |  | PRI. TEMP. |  | SEC. TEMP.         |  | SALINITY |  | SAL.                    |  | NUTR. |  | CHL. |  | WHIT'S NUTR. |  |
| 1 bottom                 |  | 50                           |  |            |  |                    |  |          |  | 1                       |  | 16    |  |      |  |              |  |
| 2 200                    |  | 60                           |  |            |  |                    |  |          |  | 2                       |  | 17    |  |      |  |              |  |
| 3 150                    |  | 80                           |  |            |  |                    |  |          |  | 3                       |  | 18    |  |      |  |              |  |
| 4 125                    |  | 90                           |  |            |  |                    |  |          |  | 4                       |  | 19    |  |      |  |              |  |
| 5 100                    |  | 100                          |  |            |  |                    |  |          |  | 5                       |  | 20    |  |      |  |              |  |
| 6 75                     |  | 110                          |  |            |  |                    |  |          |  | 6                       |  | 21    |  |      |  |              |  |
| 7 50                     |  | 120                          |  |            |  |                    |  |          |  | 7                       |  | 22    |  |      |  |              |  |
| 8 40                     |  | 130                          |  |            |  |                    |  |          |  | 8                       |  | 23    |  |      |  |              |  |
| 9 30                     |  | 140                          |  |            |  |                    |  |          |  | 9                       |  | 24    |  |      |  |              |  |
| 10 20                    |  | 150                          |  |            |  |                    |  |          |  | 10                      |  | 25    |  |      |  |              |  |
| 11 10                    |  | 160                          |  |            |  |                    |  |          |  | 11                      |  | 26    |  |      |  |              |  |
| 12 0                     |  | 170                          |  |            |  |                    |  |          |  | 12                      |  | 27    |  |      |  |              |  |

| VESSEL         |  |  |  |  |  |  |  |  |  | PROJECT & LEG                |  |  |  |  |  |  |  |  |  | STATION DESIGNATION |  |  |  |  |  |  |  |  |  |
|----------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|
| R/V Kilo Moana |  |  |  |  |  |  |  |  |  | KM0305b                      |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |
| 58.88          |  |  |  |  |  |  |  |  |  | 54.37                        |  |  |  |  |  |  |  |  |  | 2236                |  |  |  |  |  |  |  |  |  |
| CONSC CAST #   |  |  |  |  |  |  |  |  |  | DATE                         |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| LATITUDE       |  |  |  |  |  |  |  |  |  | DATE                         |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| DEG MIN        |  |  |  |  |  |  |  |  |  | DAY MO YR                    |  |  |  |  |  |  |  |  |  | HR MIN              |  |  |  |  |  |  |  |  |  |
| 1128           |  |  |  |  |  |  |  |  |  | 05 MAY 03                    |  |  |  |  |  |  |  |  |  | 2236                |  |  |  |  |  |  |  |  |  |
| 5758.94 N      |  |  |  |  |  |  |  |  |  | 14954.54 W                   |  |  |  |  |  |  |  |  |  | 09.25.71            |  |  |  |  |  |  |  |  |  |
| SBE 9+         |  |  |  |  |  |  |  |  |  | TIME                         |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| PRESS SN       |  |  |  |  |  |  |  |  |  | DATA ON                      |  |  |  |  |  |  |  |  |  | WIND SPD            |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN    |  |  |  |  |  |  |  |  |  | START DOWN                   |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN    |  |  |  |  |  |  |  |  |  | AT DEPTH                     |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| PRI COND SN    |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| SEC COND SN    |  |  |  |  |  |  |  |  |  | PAR S/N                      |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| POS.           |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| TRIP DEPTH     |  |  |  |  |  |  |  |  |  | PRI TEMP                     |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| 1 bottom       |  |  |  |  |  |  |  |  |  | 5                            |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| 2 200          |  |  |  |  |  |  |  |  |  | 6                            |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| 3 150          |  |  |  |  |  |  |  |  |  | 8                            |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| 4 125          |  |  |  |  |  |  |  |  |  | 9                            |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| 5 100          |  |  |  |  |  |  |  |  |  | 10                           |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| 6 60           |  |  |  |  |  |  |  |  |  | 11                           |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| 7 50           |  |  |  |  |  |  |  |  |  | 17                           |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| 8 40           |  |  |  |  |  |  |  |  |  | 20                           |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| 9 30           |  |  |  |  |  |  |  |  |  | 21                           |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| 10 20          |  |  |  |  |  |  |  |  |  | 22                           |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| 11 10          |  |  |  |  |  |  |  |  |  | 23                           |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |
| 12 0           |  |  |  |  |  |  |  |  |  | 24                           |  |  |  |  |  |  |  |  |  | WIND DIRL           |  |  |  |  |  |  |  |  |  |

[illegible]

[illegible]

| VESSEL         |             | PROJECT & LEG |  | DSDB I.D.  |  | STATION DESIGNATION |  |
|----------------|-------------|---------------|--|------------|--|---------------------|--|
| R/V Kilo Moana |             | KM0305b       |  |            |  | STB08               |  |
| CONSC CAST #   | 46.79       | DATE          |  | TIME       |  | STATION NAME/ID     |  |
| 1315746.75 N   | 09.31       | 06 MAY 03     |  | 0306       |  | 183                 |  |
| DEG MIN        | DEG MIN     | DAY           |  | HR         |  | WIND DIRN.          |  |
| 15746.75       | 09.31       | 06            |  | 03         |  | 275                 |  |
| LONGITUDE      | LONGITUDE   | TIME (GMT)    |  | WET BULB   |  | WIND SPD.           |  |
| 15746.75       | 09.31       | 0306          |  | 8.5        |  | 14                  |  |
| DEG MIN        | DEG MIN     | WET BULB      |  | WIND DIRN. |  | WIND SPD.           |  |
| 15746.75       | 09.31       | 8.5           |  | 275        |  | 14                  |  |
| DATA ON        | DATA ON     | PRESSURE      |  | SEA STATE  |  | WIND DIRN.          |  |
| START DOWN     | START DOWN  | 17            |  | 48         |  | 275                 |  |
| AT DEPTH       | AT DEPTH    | WET BULB      |  | SEA STATE  |  | WIND SPD.           |  |
| AT SURFACE     | AT SURFACE  | 5.0           |  | 48         |  | 14                  |  |
| SEC COND SN    | SEC COND SN | TIME (GMT)    |  | WET BULB   |  | WIND DIRN.          |  |
| 1315746.75     | 09.31       | 0306          |  | 8.5        |  | 275                 |  |
| DEG MIN        | DEG MIN     | WET BULB      |  | WIND DIRN. |  | WIND SPD.           |  |
| 15746.75       | 09.31       | 8.5           |  | 275        |  | 14                  |  |
| DATA ON        | DATA ON     | PRESSURE      |  | SEA STATE  |  | WIND DIRN.          |  |
| START DOWN     | START DOWN  | 17            |  | 48         |  | 275                 |  |
| AT DEPTH       | AT DEPTH    | WET BULB      |  | SEA STATE  |  | WIND SPD.           |  |
| AT SURFACE     | AT SURFACE  | 5.0           |  | 48         |  | 14                  |  |
| SEC COND SN    | SEC COND SN | TIME (GMT)    |  | WET BULB   |  | WIND DIRN.          |  |
| 1315746.75     | 09.31       | 0306          |  | 8.5        |  | 275                 |  |
| DEG MIN        | DEG MIN     | WET BULB      |  | WIND DIRN. |  | WIND SPD.           |  |
| 15746.75       | 09.31       | 8.5           |  | 275        |  | 14                  |  |
| DATA ON        | DATA ON     | PRESSURE      |  | SEA STATE  |  | WIND DIRN.          |  |
| START DOWN     | START DOWN  | 17            |  | 48         |  | 275                 |  |
| AT DEPTH       | AT DEPTH    | WET BULB      |  | SEA STATE  |  | WIND SPD.           |  |
| AT SURFACE     | AT SURFACE  | 5.0           |  | 48         |  | 14                  |  |
| SEC COND SN    | SEC COND SN | TIME (GMT)    |  | WET BULB   |  | WIND DIRN.          |  |
| 1315746.75     | 09.31       | 0306          |  | 8.5        |  | 275                 |  |
| DEG MIN        | DEG MIN     | WET BULB      |  | WIND DIRN. |  | WIND SPD.           |  |
| 15746.75       | 09.31       | 8.5           |  | 275        |  | 14                  |  |
| DATA ON        | DATA ON     | PRESSURE      |  | SEA STATE  |  | WIND DIRN.          |  |
| START DOWN     | START DOWN  | 17            |  | 48         |  | 275                 |  |
| AT DEPTH       | AT DEPTH    | WET BULB      |  | SEA STATE  |  | WIND SPD.           |  |
| AT SURFACE     | AT SURFACE  | 5.0           |  | 48         |  | 14                  |  |
| SEC COND SN    | SEC COND SN | TIME (GMT)    |  | WET BULB   |  | WIND DIRN.          |  |
| 1315746.75     | 09.31       | 0306          |  | 8.5        |  | 275                 |  |
| DEG MIN        | DEG MIN     | WET BULB      |  | WIND DIRN. |  | WIND SPD.           |  |
| 15746.75       | 09.31       | 8.5           |  | 275        |  | 14                  |  |
| DATA ON        | DATA ON     | PRESSURE      |  | SEA STATE  |  | WIND DIRN.          |  |
| START DOWN     | START DOWN  | 17            |  | 48         |  | 275                 |  |
| AT DEPTH       | AT DEPTH    | WET BULB      |  | SEA STATE  |  | WIND SPD.           |  |
| AT SURFACE     | AT SURFACE  | 5.0           |  | 48         |  | 14                  |  |
| SEC COND SN    | SEC COND SN | TIME (GMT)    |  | WET BULB   |  | WIND DIRN.          |  |
| 1315746.75     | 09.31       | 0306          |  | 8.5        |  | 275                 |  |
| DEG MIN        | DEG MIN     | WET BULB      |  | WIND DIRN. |  | WIND SPD.           |  |
| 15746.75       | 09.31       | 8.5           |  | 275        |  | 14                  |  |
| DATA ON        | DATA ON     | PRESSURE      |  | SEA STATE  |  | WIND DIRN.          |  |
| START DOWN     | START DOWN  | 17            |  | 48         |  | 275                 |  |
| AT DEPTH       | AT DEPTH    | WET BULB      |  | SEA STATE  |  | WIND SPD.           |  |
| AT SURFACE     | AT SURFACE  | 5.0           |  | 48         |  | 14                  |  |
| SEC COND SN    | SEC COND SN | TIME (GMT)    |  | WET BULB   |  | WIND DIRN.          |  |
| 1315746.75     | 09.31       | 0306          |  | 8.5        |  | 275                 |  |
| DEG MIN        | DEG MIN     | WET BULB      |  | WIND DIRN. |  | WIND SPD.           |  |
| 15746.75       | 09.31       | 8.5           |  | 275        |  | 14                  |  |
| DATA ON        | DATA ON     | PRESSURE      |  | SEA STATE  |  | WIND DIRN.          |  |
| START DOWN     | START DOWN  | 17            |  | 48         |  | 275                 |  |
| AT DEPTH       | AT DEPTH    | WET BULB      |  | SEA STATE  |  | WIND SPD.           |  |
| AT SURFACE     | AT SURFACE  | 5.0           |  | 48         |  | 14                  |  |
| SEC COND SN    | SEC COND SN | TIME (GMT)    |  | WET BULB   |  | WIND DIRN.          |  |
| 1315746.75     | 09.31       | 0306          |  | 8.5        |  | 275                 |  |
| DEG MIN        | DEG MIN     | WET BULB      |  | WIND DIRN. |  | WIND SPD.           |  |

| VESSEL<br>R/V Kilo Moana |     | PROJECT & LEG<br>KM0305b |     |           |     | DSDB ID. |    | STATION DESIGNATION<br>STB09 |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|--------------------------|-----|--------------------------|-----|-----------|-----|----------|----|------------------------------|------|------------------|------|------------------|-------|-----------|-------|------------|-----|-----------|---|-------------|----|---------|---|---------------------|---|--------------|---|-------|
| CONSC<br>CAST #          |     | LATITUDE                 |     | LONGITUDE |     | DATE JD- |    | TIME (GMT)                   |      | WET BULB         |      | PRESSURE         |       | SEA STATE |       | WIND DIRN. |     | WIND SPD. |   | CLOUD (amt) |    | WEATHER |   | BOTTOM<br>DEPTH (m) |   | STA. NAME/ID |   |       |
| DEG                      | MIN | DEG                      | MIN | DAY       | MO  | YR       | HR | MIN                          | (°C) | (°C)             | (mb) | * * *            | (deg) | (m/s)     | * * * |            |     |           |   |             |    |         |   |                     |   |              |   |       |
| 132                      | 57  | 42                       | 28  | N         | 150 | 14       | 34 | W                            | 06   | M                | A    | Y                | 03    | 05        | 36    | 7.0        | 5.1 | 1173      | 0 | 247         | 14 | 4       | 6 | 1                   | 1 | 3            | 2 | STB09 |
| SBE 9+                   |     |                          |     |           |     | JD/TIME  |    |                              |      | DATA LOCATION    |      | REMARKS          |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
| PRESS SN                 |     |                          |     |           |     |          |    |                              |      | Tape/Diskette ID |      | File Name/Header |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
| PRI TEMP SN              |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
| SEC TEMP SN              |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
| PRI COND SN              |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
| SEC COND SN              |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |
|                          |     |                          |     |           |     |          |    |                              |      |                  |      |                  |       |           |       |            |     |           |   |             |    |         |   |                     |   |              |   |       |

| VESSEL          |  | PROJECT & LEG                |  | DSDB I.D.          |  | STATION DESIGNATION  |  |
|-----------------|--|------------------------------|--|--------------------|--|----------------------|--|
| R/V Kilo Moana  |  | KM0305b                      |  |                    |  | STA02                |  |
| CONSC #         |  | 44.31                        |  | DATE JD=           |  | 193                  |  |
| LATITUDE        |  | 07.04                        |  | TIME (GMT)         |  | WIND DIR.            |  |
| DEG MIN         |  | 15047.1                      |  | HR MIN             |  | WIND SPD.            |  |
| 1305744.133N    |  | 15047.1                      |  | 4537               |  | 112                  |  |
| LONGITUDE       |  | DEG MIN                      |  | DRY BULB (°C)      |  | WET BULB (°C)        |  |
| 15047.1         |  | 15047.1                      |  | 114.7              |  | 5.5                  |  |
| DEG MIN         |  | DEG MIN                      |  | PRESSURE (mb)      |  | SEA STATE            |  |
| 15047.1         |  | 15047.1                      |  | 117.4              |  | 8                    |  |
| TIMES           |  | JD/TIME                      |  | DATA LOCATION      |  | REMARKS              |  |
| SBE 9+          |  | DATA ON                      |  | Tape/Diskette ID   |  | File Name/Header     |  |
| PRESS SN        |  | START DOWN                   |  |                    |  |                      |  |
| PRI TEMP SN     |  | AT DEPTH                     |  |                    |  |                      |  |
| SEC TEMP SN     |  | AT SURFACE                   |  |                    |  |                      |  |
| PRI COND SN     |  | PAR S/N                      |  | FLUOR S/N          |  | MAX. DEPTH = m       |  |
| SEC COND SN     |  | CLEANED AIR BLEED VALVE      |  |                    |  |                      |  |
| POS. TRIP DEPTH |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |
| 1 bottom        |  | PRI. TEMP.                   |  | SALINITY           |  | SAL.                 |  |
| 2 175           |  | SEC. TEMP.                   |  | SALINITY           |  | NUTR.                |  |
| 3 150           |  | PRI. TEMP.                   |  | SALINITY           |  | CHL.                 |  |
| 4 125           |  | SEC. TEMP.                   |  | SALINITY           |  | WHIT'S NUTR.         |  |
| 5 100           |  | PRI. TEMP.                   |  | SALINITY           |  |                      |  |
| 6 75            |  | SEC. TEMP.                   |  | SALINITY           |  |                      |  |
| 7 50            |  | PRI. TEMP.                   |  | SALINITY           |  |                      |  |
| 8 40            |  | SEC. TEMP.                   |  | SALINITY           |  |                      |  |
| 9 30            |  | PRI. TEMP.                   |  | SALINITY           |  |                      |  |
| 10 20           |  | SEC. TEMP.                   |  | SALINITY           |  |                      |  |
| 11 10           |  | PRI. TEMP.                   |  | SALINITY           |  |                      |  |
| 12 0            |  | SEC. TEMP.                   |  | SALINITY           |  |                      |  |

| VESSEL          |          | PROJECT & LEG                |           | DSDB I.D.    |          | STATION DESIGNATION |    |
|-----------------|----------|------------------------------|-----------|--------------|----------|---------------------|----|
| R/V Kilo Moana  |          | KM0305b                      |           |              |          | STA03               |    |
| CONSC CAST #    | LATITUDE |                              | LONGITUDE |              | DATE JD= |                     |    |
| DEG MIN         | DEG      | MIN                          | DEG       | MIN          | DAY      | MO                  | YR |
| 13 45 48        | 5        | 5                            | 14 9 52   | 8            | W        | 06                  | MA |
| SBE 9+          |          | TIMES                        |           | JD/TIME      |          | Tape/Diskette ID    |    |
| PRESS SN        |          | DATA ON                      |           | 0733         |          | File Name/Header    |    |
| PRI TEMP SN     |          | START DOWN                   |           | 0734         |          |                     |    |
| SEC TEMP SN     |          | AT-DEPTH                     |           | 0743         |          |                     |    |
| PRI COND SN     |          | AT SURFACE                   |           | 0757         |          |                     |    |
| SEC COND SN     |          | PAR S/N                      |           | FLUOR S/N    |          |                     |    |
| POS. TRIP DEPTH |          | CTD CONVERTED MONITOR VALUES |           |              |          |                     |    |
|                 |          | PRESSURE                     |           | PRI. TEMP.   |          | SEC. TEMP.          |    |
|                 |          | SALINITY                     |           | SALINITY     |          | SALINITY            |    |
|                 |          | SAL.                         |           | SAL.         |          | SAL.                |    |
|                 |          | NUTR.                        |           | NUTR.        |          | NUTR.               |    |
|                 |          | CHL.                         |           | CHL.         |          | CHL.                |    |
|                 |          | WHIT'S NUTR.                 |           | WHIT'S NUTR. |          | WHIT'S NUTR.        |    |
| 1               | Bot      | 5                            |           |              |          |                     |    |
| 2               | 225      | 6                            |           |              |          |                     |    |
| 3               | 200      | 8                            |           |              |          |                     |    |
| 4               | 175      | 9                            |           |              |          |                     |    |
| 5               | 150      | 10                           |           |              |          |                     |    |
| 6               | 100      | 11                           |           |              |          |                     |    |
| 7               | 75       | 17                           |           |              |          |                     |    |
| 8               | 50       | 20                           |           |              |          |                     |    |
| 9               | 30       | 21                           |           |              |          |                     |    |
| 10              | 20       | 22                           |           |              |          |                     |    |
| 11              | 10       | 23                           |           |              |          |                     |    |
| 12              | 0        | 24                           |           |              |          |                     |    |

Cleaned air bleed valve

MAX. DEPTH = m

[illegible]

| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0309 |  | DSDB I.D.          |  | STATION DESIGNATION |  |
|--------------------------|--|-------------------------|--|--------------------|--|---------------------|--|
| CONSC CAST #             |  | LATITUDE                |  | LONGITUDE          |  | DATE                |  |
| DEG MIN                  |  | DEG MIN                 |  | DAY MO YR          |  | TIME (GMT)          |  |
| 13 6 57 55 . 11 2 N      |  | 14 9 34 . 6 0 W         |  | 06 MAY 03          |  | 10 51 07 . 10 4 . 6 |  |
| SBE 9+                   |  | TIMES                   |  | JD/TIME            |  | DATA LOCATION       |  |
| PRESS SN                 |  | DATA ON                 |  | Tape/Diskette ID   |  | File Name/Header    |  |
| PRI TEMP SN              |  | START DOWN              |  |                    |  |                     |  |
| SEC TEMP SN              |  | AT DEPTH                |  |                    |  |                     |  |
| PRI COND SN              |  | AT SURFACE              |  |                    |  |                     |  |
| SEC COND SN              |  | PAR S/N                 |  | FLUOR S/N          |  | MAX. DEPTH = 125 m  |  |
| POS. TRIP DEPTH          |  | PRESSURE                |  | PRL TEMP.          |  | SEC. TEMP.          |  |
| 5 1 Bottom               |  |                         |  |                    |  |                     |  |
| 6 2 100                  |  |                         |  |                    |  |                     |  |
| 8 3 75                   |  |                         |  |                    |  |                     |  |
| 9 4 60                   |  |                         |  |                    |  |                     |  |
| 10 5 40                  |  |                         |  |                    |  |                     |  |
| 11 6 30                  |  |                         |  |                    |  |                     |  |
| 17 7 20                  |  |                         |  |                    |  |                     |  |
| 20 8 10                  |  |                         |  |                    |  |                     |  |
| 21 9 0                   |  |                         |  |                    |  |                     |  |
| 22 10                    |  |                         |  |                    |  |                     |  |
| 23 11                    |  |                         |  |                    |  |                     |  |
| 24 12                    |  |                         |  |                    |  |                     |  |
| WIND DIRN                |  | WIND SPD                |  | WET BULB           |  | WIND DIRN           |  |
| 628013                   |  | (m/s)                   |  | (°C)               |  | (deg)               |  |
| SEA STATE                |  | PRESSURE                |  | WET BULB           |  | WIND DIRN           |  |
| 3                        |  | (mb)                    |  | (°C)               |  | (deg)               |  |
| CLOUD (amt)              |  | WET BULB                |  | WIND DIRN          |  | WIND SPD            |  |
| *10129                   |  | (°C)                    |  | (deg)              |  | (m/s)               |  |
| WEATHER                  |  | WET BULB                |  | WIND DIRN          |  | WIND SPD            |  |
| *10129                   |  | (°C)                    |  | (deg)              |  | (m/s)               |  |
| BOTTOM DEPTH             |  | WET BULB                |  | WIND DIRN          |  | WIND SPD            |  |
| 125                      |  | (°C)                    |  | (deg)              |  | (m/s)               |  |
| STA. NAME/ID             |  | WET BULB                |  | WIND DIRN          |  | WIND SPD            |  |
| STA5                     |  | (°C)                    |  | (deg)              |  | (m/s)               |  |
| REMARKS                  |  | WET BULB                |  | WIND DIRN          |  | WIND SPD            |  |
| Cleared air bleed valve  |  | (°C)                    |  | (deg)              |  | (m/s)               |  |
| MAX. DEPTH = 125 m       |  | WET BULB                |  | WIND DIRN          |  | WIND SPD            |  |
|                          |  | (°C)                    |  | (deg)              |  | (m/s)               |  |
| SAMPLE BOTTLE DATA       |  | SAMPLE BOTTLE DATA      |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE DATA  |  |
| SAL.                     |  | SALINITY                |  | SALINITY           |  | SALINITY            |  |
| 121                      |  |                         |  |                    |  |                     |  |
| 122                      |  |                         |  |                    |  |                     |  |
| 123                      |  |                         |  |                    |  |                     |  |
| 124                      |  |                         |  |                    |  |                     |  |
| 125                      |  |                         |  |                    |  |                     |  |
| 126                      |  |                         |  |                    |  |                     |  |
| 127                      |  |                         |  |                    |  |                     |  |
| 128 F - 000000           |  |                         |  |                    |  |                     |  |
| 129 F                    |  |                         |  |                    |  |                     |  |
| CHL.                     |  | SALINITY                |  | SALINITY           |  | SALINITY            |  |
|                          |  |                         |  |                    |  |                     |  |
| NUTR.                    |  | SEC. TEMP.              |  | SEC. TEMP.         |  | SEC. TEMP.          |  |
|                          |  |                         |  |                    |  |                     |  |
| WHIT'S                   |  | PRL TEMP.               |  | PRL TEMP.          |  | PRL TEMP.           |  |
|                          |  |                         |  |                    |  |                     |  |

[illegible]

5 6 8 9 10 11 17 20 21 22 23



| VESSEL         |          | PROJECT & LEG |      | DSDB I.D.  |          | STATION DESIGNATION |           |            |           |             |      |         |              |              |
|----------------|----------|---------------|------|------------|----------|---------------------|-----------|------------|-----------|-------------|------|---------|--------------|--------------|
| R/V Kilo Moana |          | KM03058-126   |      | KM0309     |          | 126                 |           |            |           |             |      |         |              |              |
| CONSC CAST #   | LATITUDE | LONGITUDE     | DATE | TIME (GMT) | DRY BULB | WET BULB            | SEA STATE | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| DEG            | MIN      | DEG           | MIN  | DAY        | MO       | YR                  | HR        | MIN        | (°C)      | (°C)        | (mb) | (deg)   | (m/s)        | (m)          |
| 14             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 15             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 16             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 17             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 18             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 19             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 20             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 21             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 22             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 23             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 24             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 25             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 26             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 27             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 28             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 29             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 30             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 31             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 32             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 33             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 34             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 35             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 36             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 37             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 38             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 39             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 40             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 41             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 42             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 43             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 44             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 45             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 46             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 47             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 48             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 49             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 50             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 51             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 52             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 53             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 54             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 55             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 56             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 57             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 58             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 59             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 60             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 61             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 62             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 63             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 64             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 65             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 66             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 67             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 68             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 69             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 70             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 71             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 72             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 73             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 74             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 75             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 76             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 77             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 78             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 79             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 80             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 81             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 82             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 83             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 84             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 85             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 86             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 87             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 88             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 89             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 90             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 91             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 92             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 93             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 94             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 95             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 96             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 97             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 98             | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 99             | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 100            | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 101            | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 102            | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 103            | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 104            | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 105            | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 106            | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 107            | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 108            | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 109            | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 110            | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 111            | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 112            | 05       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 113            | 08       | 03            | 78   | N          | 14       | 09                  | 10        | 47         | W         | 06          | M    | A       | Y            | 03           |
| 114            |          |               |      |            |          |                     |           |            |           |             |      |         |              |              |

| VESSEL          |          | PROJECT & LEG                |            | DSDB I.D.          |          | STATION DESIGNATION  |            |
|-----------------|----------|------------------------------|------------|--------------------|----------|----------------------|------------|
| R/V Kilo Moana  |          | KN0309                       |            | KN0309b            |          | SAB1                 |            |
| CONSC CAST #    | LATITUDE |                              | LONGITUDE  |                    | DATE     |                      | TIME (GMT) |
| DEG MIN         | DEG MIN  | DEG MIN                      | DAY        | MO                 | YR       | HR                   | MIN        |
| 1415805.97      | N        | 14904.62                     | W          | 06                 | M        | 17                   | 13         |
| SBE 9+          |          | TIMES                        |            | JD/TIME            |          | DATA LOCATION        |            |
| PRESS SN        |          | DATA ON                      |            | Tape/Diskette ID   |          | File Name/Header     |            |
| PRI TEMP SN     |          | START DOWN                   |            |                    |          |                      |            |
| SEC TEMP SN     |          | AT DEPTH                     |            |                    |          |                      |            |
| PRI COND SN     |          | AT SURFACE                   |            |                    |          |                      |            |
| SEC COND SN     |          | PAR S/N                      |            | FLUOR S/N          |          | MAX. DEPTH = 82 m    |            |
| POS. TRIP DEPTH |          | CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA |          | SAMPLE BOTTLE NUMBER |            |
| 1               | Bottom   | PRESSURE                     | PRI. TEMP. | SEC. TEMP.         | SALINITY | SAL                  | 1          |
| 2               | 60       |                              |            |                    |          |                      | 2          |
| 3               | 40       |                              |            |                    |          |                      | 3          |
| 4               | 20       |                              |            |                    |          |                      | 4          |
| 5               | 20       |                              |            |                    |          |                      | 5F         |
| 6               | 10       |                              |            |                    |          |                      | 6F         |
| 7               | 0        |                              |            |                    |          |                      | 7F         |
| 8               |          |                              |            |                    |          |                      |            |
| 9               |          |                              |            |                    |          |                      |            |
| 10              |          |                              |            |                    |          |                      |            |
| 11              |          |                              |            |                    |          |                      |            |
| 12              |          |                              |            |                    |          |                      |            |
| 13              |          |                              |            |                    |          |                      |            |
| 14              |          |                              |            |                    |          |                      |            |
| 15              |          |                              |            |                    |          |                      |            |
| 16              |          |                              |            |                    |          |                      |            |
| 17              |          |                              |            |                    |          |                      |            |
| 18              |          |                              |            |                    |          |                      |            |
| 19              |          |                              |            |                    |          |                      |            |
| 20              |          |                              |            |                    |          |                      |            |
| 21              |          |                              |            |                    |          |                      |            |
| 22              |          |                              |            |                    |          |                      |            |
| 23              |          |                              |            |                    |          |                      |            |
| 24              |          |                              |            |                    |          |                      |            |

5 6 8 9 10 11 17 20 21 22 23 24

|    | Bottom |
|----|--------|
| 1  |        |
| 2  | 100    |
| 3  | 75     |
| 4  | 50     |
| 5  | 40     |
| 6  | 30     |
| 7  | 20     |
| 8  | 10     |
| 9  | 0      |
| 10 |        |
| 11 |        |
| 12 |        |

| VESSEL                  |  | PROJECT & LEG                |  | DSDB ID.                |  | STATION DESIGNATION     |  |
|-------------------------|--|------------------------------|--|-------------------------|--|-------------------------|--|
| R/V Kilo Moana          |  | KMO309                       |  | KMO309                  |  | KMO309                  |  |
| CONSC CAST #            |  | .74                          |  | 2336                    |  | 124                     |  |
| LATITUDE                |  | LONGITUDE                    |  | TIME (GMT)              |  | WET BULB                |  |
| DEG MIN                 |  | DEG MIN                      |  | HR MIN                  |  | (°C)                    |  |
| 14 25 21.14             |  | 14 25 21.14                  |  | 23 36                   |  | 7.8                     |  |
| SBE 9+                  |  | DATE ID- 126                 |  | DATE ID- 126            |  | DATE ID- 126            |  |
| PRESS SN                |  | DATE ID- 126                 |  | DATE ID- 126            |  | DATE ID- 126            |  |
| PRI TEMP SN             |  | DATE ID- 126                 |  | DATE ID- 126            |  | DATE ID- 126            |  |
| SEC TEMP SN             |  | DATE ID- 126                 |  | DATE ID- 126            |  | DATE ID- 126            |  |
| PRI COND SN             |  | DATE ID- 126                 |  | DATE ID- 126            |  | DATE ID- 126            |  |
| SEC COND SN             |  | DATE ID- 126                 |  | DATE ID- 126            |  | DATE ID- 126            |  |
| POS. TRIP DEPTH         |  | CTD CONVERTED MONITOR VALUES |  | FLUOR S/N               |  | MAX. DEPTH = m          |  |
| 5 1 Bottom              |  | PRESSURE                     |  | PRI. TEMP.              |  | SEC. TEMP.              |  |
| 6 2 100                 |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| 8 3 75                  |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| 9 4 60                  |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| 10 5 40                 |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| 11 6 30                 |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| 17 7 20                 |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| 20 8 10                 |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| 21 9 0                  |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| 22 10                   |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| 23 11                   |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| 24 12                   |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| SBE 9+                  |  | TIME (GMT)                   |  | WET BULB                |  | WIND DIR.               |  |
| PRESS SN                |  | TIME (GMT)                   |  | WET BULB                |  | WIND DIR.               |  |
| PRI TEMP SN             |  | TIME (GMT)                   |  | WET BULB                |  | WIND DIR.               |  |
| SEC TEMP SN             |  | TIME (GMT)                   |  | WET BULB                |  | WIND DIR.               |  |
| PRI COND SN             |  | TIME (GMT)                   |  | WET BULB                |  | WIND DIR.               |  |
| SEC COND SN             |  | TIME (GMT)                   |  | WET BULB                |  | WIND DIR.               |  |
| DATA ON                 |  | DATA ON                      |  | DATA ON                 |  | DATA ON                 |  |
| START DOWN              |  | START DOWN                   |  | START DOWN              |  | START DOWN              |  |
| AT DEPTH                |  | AT DEPTH                     |  | AT DEPTH                |  | AT DEPTH                |  |
| AT SURFACE              |  | AT SURFACE                   |  | AT SURFACE              |  | AT SURFACE              |  |
| Tape/Diskette ID        |  | Tape/Diskette ID             |  | Tape/Diskette ID        |  | Tape/Diskette ID        |  |
| File Name/Header        |  | File Name/Header             |  | File Name/Header        |  | File Name/Header        |  |
| REMARKS                 |  | REMARKS                      |  | REMARKS                 |  | REMARKS                 |  |
| Cleaned air bleed valve |  | Cleaned air bleed valve      |  | Cleaned air bleed valve |  | Cleaned air bleed valve |  |
| MAX. DEPTH = m          |  | MAX. DEPTH = m               |  | MAX. DEPTH = m          |  | MAX. DEPTH = m          |  |
| SAMPLE BOTTLE DATA      |  | SAMPLE BOTTLE DATA           |  | SAMPLE BOTTLE DATA      |  | SAMPLE BOTTLE DATA      |  |
| SALINITY                |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| SAL                     |  | SAL                          |  | SAL                     |  | SAL                     |  |
| NUTR.                   |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| CHL                     |  | CHL                          |  | CHL                     |  | CHL                     |  |
| WHIT'S NUTR.            |  | WHIT'S NUTR.                 |  | WHIT'S NUTR.            |  | WHIT'S NUTR.            |  |

|                          |  |                          |  |               |  |                |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
|--------------------------|--|--------------------------|--|---------------|--|----------------|--|------------------------------|--|---------------|--|---------------|--|---------------|--|-----------|--|-----------------|--|----------------|--|-------------|--|---------|--|------------------|--|--------------|--|-------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0305b |  |               |  | DSDB I.D.      |  | STATION DESIGNATION<br>SABOH |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| CONC CAST #              |  | LATITUDE                 |  | LONGITUDE     |  | DATE ID        |  | TIME (GMT)                   |  | DRY BULB (°C) |  | WET BULB (°C) |  | PRESSURE (mb) |  | SEA STATE |  | WIND DIRN (deg) |  | WIND SPD (m/s) |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH (m) |  | STA. NAME/ID |  |       |  |
| 48                       |  | 14 45 28.54 N            |  | 14 45 28.54 W |  | 91             |  | 04 10 43                     |  | 8.0           |  | 6.2           |  | 18.3          |  | 3         |  | 28              |  | 4              |  | 3           |  | 6       |  | 1                |  | 114          |  | SABOH |  |
| SBE 9+                   |  | DEG MIN                  |  | DEG MIN       |  | DAY MONTH YEAR |  | HR MIN                       |  | °C            |  | °C            |  | (mb)          |  | *         |  | (deg)           |  | (m/s)          |  | *           |  | *       |  | (m)              |  |              |  |       |  |
| PRESS SN                 |  |                          |  |               |  |                |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| PRI TEMP SN              |  |                          |  |               |  |                |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| SEC TEMP SN              |  |                          |  |               |  |                |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| PRI COND SN              |  |                          |  |               |  |                |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| SEC COND SN              |  |                          |  |               |  |                |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| POS. TRIP DEPTH          |  |                          |  |               |  |                |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| 1                        |  | bottom                   |  | 5             |  | 5              |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| 2                        |  | 80                       |  | 6             |  | 6              |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| 3                        |  | 60                       |  | 8             |  | 8              |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| 4                        |  | 40                       |  | 9             |  | 9              |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| 5                        |  | 30                       |  | 10            |  | 10             |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| 6                        |  | 20                       |  | 11            |  | 11             |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| 7                        |  | 10                       |  | 17            |  | 17             |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| 8                        |  | 0                        |  | 20            |  | 20             |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| 9                        |  |                          |  |               |  |                |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| 10                       |  |                          |  |               |  |                |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| 11                       |  |                          |  |               |  |                |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |
| 12                       |  |                          |  |               |  |                |  |                              |  |               |  |               |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |       |  |

  

| CTD CONVERTED MONITOR VALUES |            |          |            | SAMPLE BOTTLE DATA |          |      |       | SAMPLE BOTTLE NUMBER |              |  |  |
|------------------------------|------------|----------|------------|--------------------|----------|------|-------|----------------------|--------------|--|--|
| POS.                         | TRIP DEPTH | PRESSURE | PRI. TEMP. | SEC. TEMP.         | SALINITY | SAL. | NUTR. | CHL.                 | WHIT'S NUTR. |  |  |
| 1                            | bottom     | 5        |            |                    |          | 5    | 211   | 26                   |              |  |  |
| 2                            | 80         | 6        |            |                    |          | 6    | 27    |                      |              |  |  |
| 3                            | 60         | 8        |            |                    |          | 8    | 28    |                      |              |  |  |
| 4                            | 40         | 9        |            |                    |          | 9    | 29    |                      |              |  |  |
| 5                            | 30         | 10       |            |                    |          | 10   | 30    |                      |              |  |  |
| 6                            | 20         | 11       |            |                    |          | 11   | 31    | 6                    |              |  |  |
| 7                            | 10         | 17       |            |                    |          | 17   | 32    | 6                    |              |  |  |
| 8                            | 0          | 20       |            |                    |          | 20   | 33    |                      |              |  |  |
| 9                            |            |          |            |                    |          |      |       |                      |              |  |  |
| 10                           |            |          |            |                    |          |      |       |                      |              |  |  |
| 11                           |            |          |            |                    |          |      |       |                      |              |  |  |
| 12                           |            |          |            |                    |          |      |       |                      |              |  |  |

  

|                         |  |
|-------------------------|--|
| REMARKS                 |  |
| DATA LOCATION           |  |
| Tape/Diskette ID        |  |
| File Name/Header        |  |
| Cleaned air bleed valve |  |
| MAX. DEPTH = m          |  |

[illegible]

| VESSEL         |     | PROJECT & LEG |     | DSDB I.D.        |    | STATION DESIGNATION |    |
|----------------|-----|---------------|-----|------------------|----|---------------------|----|
| R/V Kilo Moana |     | KMO305b       |     |                  |    | GB12                |    |
| CONSC CAST #   |     | LATITUDE      |     | DATE JD=         |    | TIME (GMT)          |    |
| .46            |     | 47            |     | 0337             |    |                     |    |
| DEG            | MIN | DEG           | MIN | DAY              | MO | YR                  | HR |
| 146            | 58  | 42            | 31  | N                | 14 | 8                   | 50 |
| SBE 9+         |     | LONGITUDE     |     | TIME (GMT)       |    | TIME (GMT)          |    |
|                |     | 47            |     | 0337             |    |                     |    |
| PRESS SN       |     | DATA ON       |     | Tape/Diskette ID |    | File Name/Header    |    |
| PRI TEMP SN    |     | START DOWN    |     |                  |    |                     |    |
| SEC TEMP SN    |     | AT DEPTH      |     |                  |    |                     |    |
| PRI COND SN    |     | AT SURFACE    |     |                  |    |                     |    |
| SEC COND SN    |     | PAR S/N       |     | FLUOR S/N        |    | MAX. DEPTH = m      |    |
|                |     | 146           |     | 148              |    | 148                 |    |
|                |     | 58            |     | 50               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     | 58               |    | 50                  |    |
|                |     | 42            |     | 31               |    | 31                  |    |
|                |     | N             |     | 14               |    | 8                   |    |
|                |     | 146           |     |                  |    |                     |    |

|                          |  |                          |  |                         |  |                                                                     |  |                  |  |                  |  |                  |  |                  |  |           |  |            |  |                     |  |                    |  |             |  |         |  |                 |  |              |  |
|--------------------------|--|--------------------------|--|-------------------------|--|---------------------------------------------------------------------|--|------------------|--|------------------|--|------------------|--|------------------|--|-----------|--|------------|--|---------------------|--|--------------------|--|-------------|--|---------|--|-----------------|--|--------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0305b |  | DSDB I.D.               |  | STATION DESIGNATION<br><div style="text-align: right;">ATB005</div> |  |                  |  |                  |  |                  |  |                  |  |           |  |            |  |                     |  |                    |  |             |  |         |  |                 |  |              |  |
| CONSC<br>CAST #          |  | LATITUDE<br>DEG MIN      |  | LONGITUDE<br>DEG MIN    |  | DATE JD=                                                            |  | TIME (GMT)       |  | DRY BULB<br>(°C) |  | WET BULB<br>(°C) |  | PRESSURE<br>(mb) |  | SEA STATE |  | VISIBILITY |  | WIND DIRN.<br>(deg) |  | WIND SPD.<br>(m/s) |  | CLOUD (amt) |  | WEATHER |  | BOTTOM<br>DEPTH |  | STA. NAME/ID |  |
|                          |  |                          |  |                         |  |                                                                     |  |                  |  |                  |  |                  |  |                  |  |           |  |            |  |                     |  |                    |  | TYPE        |  | (m)     |  |                 |  |              |  |
| 1425847.24N              |  | 141849.02W               |  | 07 MAY 03               |  | 336                                                                 |  | 7.5              |  | 5.1              |  | 19.28            |  | 69               |  | 15        |  | 11         |  | 11                  |  | 25                 |  | 1           |  | ATB005  |  |                 |  |              |  |
| SBE 9+                   |  | JD/TIME                  |  | DATA LOCATION           |  | Tape/Diskette ID                                                    |  | File Name/Header |  | REMARKS          |  |                  |  |                  |  |           |  |            |  |                     |  |                    |  |             |  |         |  |                 |  |              |  |
| PRESS SN                 |  | DATA ON                  |  | 0526                    |  | Tape/Diskette ID                                                    |  | File Name/Header |  | REMARKS          |  |                  |  |                  |  |           |  |            |  |                     |  |                    |  |             |  |         |  |                 |  |              |  |
| PRI TEMP SN              |  | START DOWN               |  | 0528                    |  | Tape/Diskette ID                                                    |  | File Name/Header |  | REMARKS          |  |                  |  |                  |  |           |  |            |  |                     |  |                    |  |             |  |         |  |                 |  |              |  |
| SEC TEMP SN              |  | AT DEPTH                 |  |                         |  | Tape/Diskette ID                                                    |  | File Name/Header |  | REMARKS          |  |                  |  |                  |  |           |  |            |  |                     |  |                    |  |             |  |         |  |                 |  |              |  |
| PRI COND SN              |  | AT SURFACE               |  |                         |  | Tape/Diskette ID                                                    |  | File Name/Header |  | REMARKS          |  |                  |  |                  |  |           |  |            |  |                     |  |                    |  |             |  |         |  |                 |  |              |  |
| SEC COND SN              |  |                          |  |                         |  | Tape/Diskette ID                                                    |  | File Name/Header |  | REMARKS          |  |                  |  |                  |  |           |  |            |  |                     |  |                    |  |             |  |         |  |                 |  |              |  |
| PAR S/N                  |  | FLUOR S/N                |  | CLEANED AIR BLEED VALVE |  | MAX. DEPTH =                                                        |  | m                |  |                  |  |                  |  |                  |  |           |  |            |  |                     |  |                    |  |             |  |         |  |                 |  |              |  |

  

| POS. |     | TRIP DEPTH |  | CTD CONVERTED MONITOR VALUES |            |            |          | SAMPLE BOTTLE DATA |          |  |      | SAMPLE BOTTLE NUMBER |      |  |  | WHIT'S<br>NUTR. |  |
|------|-----|------------|--|------------------------------|------------|------------|----------|--------------------|----------|--|------|----------------------|------|--|--|-----------------|--|
|      |     |            |  | PRESSURE                     | PRI. TEMP. | SEC. TEMP. | SALINITY |                    | SALINITY |  | SAL. | NUTR.                | CHL. |  |  |                 |  |
| 1    | Bot | 5-         |  |                              |            |            |          |                    |          |  | 5    | 212                  | 54   |  |  |                 |  |
| 2    | 225 | 6-         |  |                              |            |            |          |                    |          |  | 6    |                      | 55   |  |  |                 |  |
| 3    | 200 | 8-         |  |                              |            |            |          |                    |          |  | 8    |                      | 56   |  |  |                 |  |
| 4    | 175 | 9-         |  |                              |            |            |          |                    |          |  | 9    |                      | 57   |  |  |                 |  |
| 5    | 150 | 10-        |  |                              |            |            |          |                    |          |  | 10   |                      | 58   |  |  |                 |  |
| 6    | 125 | 11-        |  |                              |            |            |          |                    |          |  | 11   |                      | 59   |  |  |                 |  |
| 7    | 100 | 12-        |  |                              |            |            |          |                    |          |  | 12   |                      | 60   |  |  |                 |  |
| 8    | 75  | 13-        |  |                              |            |            |          |                    |          |  | 13   |                      | 61   |  |  |                 |  |
| 9    | 60  | 14-        |  |                              |            |            |          |                    |          |  | 14   |                      | 62   |  |  |                 |  |
| 10   | 30  | 15-        |  |                              |            |            |          |                    |          |  | 15   |                      | 63   |  |  |                 |  |
| 11   | 20  | 16-        |  |                              |            |            |          |                    |          |  | 16   |                      | 64   |  |  |                 |  |
| 12   | 10  | 17-        |  |                              |            |            |          |                    |          |  | 17   |                      | 65   |  |  |                 |  |

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| VESSEL<br>R/V Kilo Moana     |  | PROJECT & LEG<br>KM0305b |  | DSD8 I.D.  |  | STATION DESIGNATION<br>GB11 |  |
|------------------------------|--|--------------------------|--|------------|--|-----------------------------|--|
| CONSC<br>CAST #              |  | LATITUDE<br>54           |  | DATE JD=   |  | TIME (GMT)                  |  |
| DEG MIN                      |  | DEG MIN                  |  | DAY MO YR  |  | HR MIN                      |  |
| 148 53                       |  | 148 47                   |  | 13 MAR 03  |  | 06 58                       |  |
| SBE 9+                       |  | LONGITUDE                |  | TIME (GMT) |  | WET BULB                    |  |
| DEG MIN                      |  | DEG MIN                  |  | HR MIN     |  | (°C)                        |  |
| 148 53                       |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| PRESS SN                     |  | DATE JD=                 |  | TIME (GMT) |  | WET BULB                    |  |
| DEG MIN                      |  | DEG MIN                  |  | HR MIN     |  | (°C)                        |  |
| 148 53                       |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| PRI TEMP SN                  |  | DATE JD=                 |  | TIME (GMT) |  | WET BULB                    |  |
| DEG MIN                      |  | DEG MIN                  |  | HR MIN     |  | (°C)                        |  |
| 148 53                       |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| SEC TEMP SN                  |  | DATE JD=                 |  | TIME (GMT) |  | WET BULB                    |  |
| DEG MIN                      |  | DEG MIN                  |  | HR MIN     |  | (°C)                        |  |
| 148 53                       |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| PRI COND SN                  |  | DATE JD=                 |  | TIME (GMT) |  | WET BULB                    |  |
| DEG MIN                      |  | DEG MIN                  |  | HR MIN     |  | (°C)                        |  |
| 148 53                       |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| SEC COND SN                  |  | DATE JD=                 |  | TIME (GMT) |  | WET BULB                    |  |
| DEG MIN                      |  | DEG MIN                  |  | HR MIN     |  | (°C)                        |  |
| 148 53                       |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| POS. TRIP DEPTH              |  | LONGITUDE                |  | TIME (GMT) |  | WET BULB                    |  |
| DEG MIN                      |  | DEG MIN                  |  | HR MIN     |  | (°C)                        |  |
| 148 53                       |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| 1 bottom                     |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| 2 235                        |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| 3 254                        |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| 4 225                        |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| 5 260                        |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| 6 175                        |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| 7 150                        |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| 8 100                        |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| 9 50                         |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| 10 30                        |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| 11 20                        |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| 12 10                        |  | 148 47                   |  | 06 58      |  | 5.1                         |  |
| PRESSURE                     |  | PRI. TEMP.               |  | SEC. TEMP. |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 8                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| CTD CONVERTED MONITOR VALUES |  | SALINITY                 |  | SEC. TEMP. |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |
| 5                            |  |                          |  |            |  | 5                           |  |
| 6                            |  |                          |  |            |  | 6                           |  |
| 8                            |  |                          |  |            |  | 8                           |  |
| 9                            |  |                          |  |            |  | 9                           |  |
| 10                           |  |                          |  |            |  | 10                          |  |
| 11                           |  |                          |  |            |  | 11                          |  |
| 17                           |  |                          |  |            |  | 17                          |  |
| 20                           |  |                          |  |            |  | 20                          |  |
| 21                           |  |                          |  |            |  | 21                          |  |
| 22                           |  |                          |  |            |  | 22                          |  |
| 24                           |  |                          |  |            |  | 24                          |  |
| 23                           |  |                          |  |            |  | 23                          |  |
| SALINITY                     |  | SEC. TEMP.               |  | SALINITY   |  | SALINITY                    |  |

| VESSEL<br>R/V Kilo Moana |        | PROJECT & LEG<br>KM0309      |     | DSDB I.D.          |    | STATION DESIGNATION  |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
|--------------------------|--------|------------------------------|-----|--------------------|----|----------------------|----|------------------|------|------------------|------|-----------|------------|-----------|-------------|-----------|--------------|--------------|--|-----------|--|-------------|--|---------|--|--------------|--|--------------|--|
| CONSC<br>CAST #          |        | LATITUDE                     |     | LONGITUDE          |    | DATE                 |    | TIME (GMT)       |      | DRY BULB         |      | WET BULB  |            | PRESSURE  |             | SEA STATE |              | WIND DIRN.   |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| DEG                      | MIN    | DEG                          | MIN | DAY                | MO | YR                   | HR | MIN              | (°C) | (°C)             | (mb) | SEA STATE | WIND DIRN. | WIND SPD. | CLOUD (amt) | WEATHER   | BOTTOM DEPTH | STA. NAME/ID |  |           |  |             |  |         |  |              |  |              |  |
| 14                       | 58     | 1                            | 48  | 07                 | 07 | 03                   | 08 | 42               | 07   | 50               | 5    | 38        | 2          | 70        | 13          | *         | 10249        | ATB3         |  |           |  |             |  |         |  |              |  |              |  |
| SBE 9+                   |        | TIMES                        |     | JD/TIME            |    | DATA LOCATION        |    | Tape/Diskette ID |      | File Name/Header |      | REMARKS   |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| PRESS SN                 |        | DATA ON                      |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| PRI TEMP SN              |        | START DOWN                   |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| SEC TEMP SN              |        | AT DEPTH                     |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| PRI COND SN              |        | AT SURFACE                   |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| SEC COND SN              |        | PAR S/N                      |     | FLUOR S/N          |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| POS. TRIP DEPTH          |        | CTD CONVERTED MONITOR VALUES |     | SAMPLE BOTTLE DATA |    | SAMPLE BOTTLE NUMBER |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| 1                        | Bottom | PRESSURE                     |     | PRI. TEMP.         |    | SEC. TEMP.           |    | SALINITY         |      | SALINITY         |      | SAL.      |            | NUTR.     |             | CHL.      |              | WHIT'S NUTR. |  |           |  |             |  |         |  |              |  |              |  |
| 2                        | 225    |                              |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| 3                        | 200    |                              |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| 4                        | 150    |                              |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| 5                        | 125    |                              |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| 6                        | 100    |                              |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| 7                        | 75     |                              |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| 8                        | 50     |                              |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| 9                        | 30     |                              |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| 10                       | 20     |                              |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| 11                       | 10     |                              |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |
| 12                       | 0      |                              |     |                    |    |                      |    |                  |      |                  |      |           |            |           |             |           |              |              |  |           |  |             |  |         |  |              |  |              |  |

5 6 8 9 10 11 17 20 21 22 23 24

| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KMO305      |  | DSDB I.D.               |  | STATION DESIGNATION     |  |
|--------------------------|--|------------------------------|--|-------------------------|--|-------------------------|--|
| CONSC CAST #             |  | DATE JD= 127                 |  | TIME (GMT)              |  | WET BULB                |  |
| LATITUDE                 |  | LONGITUDE                    |  | TIME (GMT)              |  | WET BULB                |  |
| DEG MIN                  |  | DEG MIN                      |  | TIME (GMT)              |  | WET BULB                |  |
| 1505901110               |  | 14842.24                     |  | 094607.705              |  | 10226                   |  |
| SBE 9+                   |  | JD/TIME                      |  | Tape/Diskette ID        |  | File Name/Header        |  |
| PRESS SN                 |  | DATA ON                      |  | Tape/Diskette ID        |  | File Name/Header        |  |
| PRI TEMP SN              |  | START DOWN                   |  | Tape/Diskette ID        |  | File Name/Header        |  |
| SEC TEMP SN              |  | AT DEPTH                     |  | Tape/Diskette ID        |  | File Name/Header        |  |
| PRI COND SN              |  | AT SURFACE                   |  | Tape/Diskette ID        |  | File Name/Header        |  |
| SEC COND SN              |  | PAR S/N                      |  | Tape/Diskette ID        |  | File Name/Header        |  |
| POS. TRIP DEPTH          |  | CTD CONVERTED MONITOR VALUES |  | Tape/Diskette ID        |  | File Name/Header        |  |
| 1 800m                   |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 2 200                    |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 3 175                    |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 4 150                    |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 5 125                    |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 6 100                    |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 7 75                     |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 8 50                     |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 9 20                     |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 10 20                    |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 11 10                    |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 12 0                     |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 5 1                      |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 6 2                      |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 8 3                      |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 9 4                      |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 10 5                     |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 11 6                     |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 17 7                     |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 20 8                     |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 21 9                     |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 22 10                    |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 23 11                    |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| 24 12                    |  | PRESSURE                     |  | PRI TEMP.               |  | SEC TEMP.               |  |
| SAL                      |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| 213                      |  | SALINITY                     |  | SALINITY                |  | SALINITY                |  |
| NUTR.                    |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 1                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 2                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 3                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 4                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 5                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 6                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 7                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 8                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 9                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 10 F                     |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 11 F                     |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 12 F                     |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| CHL.                     |  | CHL.                         |  | CHL.                    |  | CHL.                    |  |
| 1                        |  | CHL.                         |  | CHL.                    |  | CHL.                    |  |
| 2                        |  | CHL.                         |  | CHL.                    |  | CHL.                    |  |
| 3                        |  | CHL.                         |  | CHL.                    |  | CHL.                    |  |
| 4                        |  | CHL.                         |  | CHL.                    |  | CHL.                    |  |
| 5                        |  | CHL.                         |  | CHL.                    |  | CHL.                    |  |
| 6                        |  | CHL.                         |  | CHL.                    |  | CHL.                    |  |
| 7                        |  | CHL.                         |  | CHL.                    |  | CHL.                    |  |
| 8                        |  | CHL.                         |  | CHL.                    |  | CHL.                    |  |
| 9                        |  | CHL.                         |  | CHL.                    |  | CHL.                    |  |
| 10 F                     |  | CHL.                         |  | CHL.                    |  | CHL.                    |  |
| 11 F                     |  | CHL.                         |  | CHL.                    |  | CHL.                    |  |
| 12 F                     |  | CHL.                         |  | CHL.                    |  | CHL.                    |  |
| WHT's                    |  | WHT's                        |  | WHT's                   |  | WHT's                   |  |
| NUTR.                    |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 1                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 2                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 3                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 4                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 5                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 6                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 7                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 8                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 9                        |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 10 F                     |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 11 F                     |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| 12 F                     |  | NUTR.                        |  | NUTR.                   |  | NUTR.                   |  |
| CLEANED AIR BLEED VALVE  |  | CLEANED AIR BLEED VALVE      |  | CLEANED AIR BLEED VALVE |  | CLEANED AIR BLEED VALVE |  |
| MAX. DEPTH = 222 m       |  | MAX. DEPTH = 222 m           |  | MAX. DEPTH = 222 m      |  | MAX. DEPTH = 222 m      |  |
| REMARKS                  |  | REMARKS                      |  | REMARKS                 |  | REMARKS                 |  |
| ATB2                     |  | ATB2                         |  | ATB2                    |  | ATB2                    |  |

| VESSEL                       |  | PROJECT & LEG |  | DSD8 I.D.        |  | STATION DESIGNATION |  |
|------------------------------|--|---------------|--|------------------|--|---------------------|--|
| R/V Kilo Moana               |  | KM0305b       |  | KM0309           |  | 0                   |  |
| CONSC CAST #                 |  | LATITUDE      |  | LONGITUDE        |  | DATE JD=            |  |
| DEG MIN                      |  | DEG MIN       |  | DEG MIN          |  | DAY MO YR           |  |
| 151 59 07.00 N               |  | 14 23 38.80 W |  | 14 23 38.80 W    |  | 07 MAY 03           |  |
| SBE 9+                       |  | TIME          |  | TIME (GMT)       |  | TIME (GMT)          |  |
| PRESS SN                     |  | DATA ON       |  | TIME (GMT)       |  | TIME (GMT)          |  |
| PRI TEMP SN                  |  | START DOWN    |  | TIME (GMT)       |  | TIME (GMT)          |  |
| SEC TEMP SN                  |  | AT DEPTH      |  | TIME (GMT)       |  | TIME (GMT)          |  |
| PRI COND SN                  |  | AT SURFACE    |  | TIME (GMT)       |  | TIME (GMT)          |  |
| SEC COND SN                  |  | PAR S/N       |  | TIME (GMT)       |  | TIME (GMT)          |  |
| POS. TRIP DEPTH              |  | FLUOR S/N     |  | Tape/Diskette ID |  | DATA LOCATION       |  |
| 5 1 Bottom                   |  | 1             |  | 1113407.00       |  | 06.0203826714       |  |
| 6 2 125                      |  |               |  |                  |  |                     |  |
| 8 3 100                      |  |               |  |                  |  |                     |  |
| 9 4 75                       |  |               |  |                  |  |                     |  |
| 10 5 50                      |  |               |  |                  |  |                     |  |
| 11 6 40                      |  |               |  |                  |  |                     |  |
| 17 7 30                      |  |               |  |                  |  |                     |  |
| 20 8 20                      |  |               |  |                  |  |                     |  |
| 21 9 10                      |  |               |  |                  |  |                     |  |
| 22 10 0                      |  |               |  |                  |  |                     |  |
| 23 11                        |  |               |  |                  |  |                     |  |
| 24 12                        |  |               |  |                  |  |                     |  |
| CTD CONVERTED MONITOR VALUES |  | SALINITY      |  | SALINITY         |  | SALINITY            |  |
| PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.       |  | SALINITY            |  |
| 1                            |  |               |  |                  |  |                     |  |
| 2                            |  |               |  |                  |  |                     |  |
| 3                            |  |               |  |                  |  |                     |  |
| 4                            |  |               |  |                  |  |                     |  |
| 5                            |  |               |  |                  |  |                     |  |
| 6                            |  |               |  |                  |  |                     |  |
| 7                            |  |               |  |                  |  |                     |  |
| 8                            |  |               |  |                  |  |                     |  |
| 9                            |  |               |  |                  |  |                     |  |
| 10                           |  |               |  |                  |  |                     |  |
| 11                           |  |               |  |                  |  |                     |  |
| 12                           |  |               |  |                  |  |                     |  |
| SAMPLE BOTTLE DATA           |  | SALINITY      |  | SALINITY         |  | SALINITY            |  |
| SAL                          |  | NUTR.         |  | CHL.             |  | WHIT'S NUTR.        |  |
| 13                           |  | 14            |  | 15               |  | 16                  |  |
| 17                           |  | 18            |  | 19               |  | 20 F                |  |
| 21 F                         |  | 22 F          |  | 23 F             |  | 24                  |  |
| 25                           |  | 26            |  | 27               |  | 28                  |  |
| 29                           |  | 30            |  | 31               |  | 32                  |  |
| 33                           |  | 34            |  | 35               |  | 36                  |  |
| 37                           |  | 38            |  | 39               |  | 40                  |  |
| 41                           |  | 42            |  | 43               |  | 44                  |  |
| 45                           |  | 46            |  | 47               |  | 48                  |  |
| 49                           |  | 50            |  | 51               |  | 52                  |  |
| 53                           |  | 54            |  | 55               |  | 56                  |  |
| 57                           |  | 58            |  | 59               |  | 60                  |  |
| 61                           |  | 62            |  | 63               |  | 64                  |  |
| 65                           |  | 66            |  | 67               |  | 68                  |  |
| 69                           |  | 70            |  | 71               |  | 72                  |  |
| 73                           |  | 74            |  | 75               |  | 76                  |  |
| 77                           |  | 78            |  | 79               |  | 80                  |  |
| 81                           |  | 82            |  | 83               |  | 84                  |  |
| 85                           |  | 86            |  | 87               |  | 88                  |  |
| 89                           |  | 90            |  | 91               |  | 92                  |  |
| 93                           |  | 94            |  | 95               |  | 96                  |  |
| 97                           |  | 98            |  | 99               |  | 100                 |  |
| 101                          |  | 102           |  | 103              |  | 104                 |  |
| 105                          |  | 106           |  | 107              |  | 108                 |  |
| 109                          |  | 110           |  | 111              |  | 112                 |  |
| 113                          |  | 114           |  | 115              |  | 116                 |  |
| 117                          |  | 118           |  | 119              |  | 120                 |  |
| 121                          |  | 122           |  | 123              |  | 124                 |  |
| 125                          |  | 126           |  | 127              |  | 128                 |  |
| 129                          |  | 130           |  | 131              |  | 132                 |  |
| 133                          |  | 134           |  | 135              |  | 136                 |  |
| 137                          |  | 138           |  | 139              |  | 140                 |  |
| 141                          |  | 142           |  | 143              |  | 144                 |  |
| 145                          |  | 146           |  | 147              |  | 148                 |  |
| 149                          |  | 150           |  | 151              |  | 152                 |  |
| 153                          |  | 154           |  | 155              |  | 156                 |  |
| 157                          |  | 158           |  | 159              |  | 160                 |  |
| 161                          |  | 162           |  | 163              |  | 164                 |  |
| 165                          |  | 166           |  | 167              |  | 168                 |  |
| 169                          |  | 170           |  | 171              |  | 172                 |  |
| 173                          |  | 174           |  | 175              |  | 176                 |  |
| 177                          |  | 178           |  | 179              |  | 180                 |  |
| 181                          |  | 182           |  | 183              |  | 184                 |  |
| 185                          |  | 186           |  | 187              |  | 188                 |  |
| 189                          |  | 190           |  | 191              |  | 192                 |  |
| 193                          |  | 194           |  | 195              |  | 196                 |  |
| 197                          |  | 198           |  | 199              |  | 200                 |  |
| 201                          |  | 202           |  | 203              |  | 204                 |  |
| 205                          |  | 206           |  | 207              |  | 208                 |  |
| 209                          |  | 210           |  | 211              |  | 212                 |  |
| 213                          |  | 214           |  | 215              |  | 216                 |  |
| 217                          |  | 218           |  | 219              |  | 220                 |  |
| 221                          |  | 222           |  | 223              |  | 224                 |  |
| 225                          |  | 226           |  | 227              |  | 228                 |  |
| 229                          |  | 230           |  | 231              |  | 232                 |  |
| 233                          |  | 234           |  | 235              |  | 236                 |  |
| 237                          |  | 238           |  | 239              |  | 240                 |  |
| 241                          |  | 242           |  | 243              |  | 244                 |  |
| 245                          |  | 246           |  | 247              |  | 248                 |  |
| 249                          |  | 250           |  | 251              |  | 252                 |  |
| 253                          |  | 254           |  | 255              |  | 256                 |  |
| 257                          |  | 258           |  | 259              |  | 260                 |  |
| 261                          |  | 262           |  | 263              |  | 264                 |  |
| 265                          |  | 266           |  | 267              |  | 268                 |  |
| 269                          |  | 270           |  | 271              |  | 272                 |  |
| 273                          |  | 274           |  | 275              |  | 276                 |  |
| 277                          |  | 278           |  | 279              |  | 280                 |  |
| 281                          |  | 282           |  | 283              |  | 284                 |  |
| 285                          |  | 286           |  | 287              |  | 288                 |  |
| 289                          |  | 290           |  | 291              |  | 292                 |  |
| 293                          |  | 294           |  | 295              |  | 296                 |  |
| 297                          |  | 298           |  | 299              |  | 300                 |  |
| 301                          |  | 302           |  | 303              |  | 304                 |  |
| 305                          |  | 306           |  | 307              |  | 308                 |  |
| 309                          |  | 310           |  | 311              |  | 312                 |  |
| 313                          |  | 314           |  | 315              |  | 316                 |  |
| 317                          |  | 318           |  | 319              |  | 320                 |  |
| 321                          |  | 322           |  | 323              |  | 324                 |  |
| 325                          |  | 326           |  | 327              |  | 328                 |  |
| 329                          |  | 330           |  | 331              |  | 332                 |  |
| 333                          |  | 334           |  | 335              |  | 336                 |  |
| 337                          |  | 338           |  | 339              |  | 340                 |  |
| 341                          |  | 342           |  | 343              |  | 344                 |  |
| 345                          |  | 346           |  | 347              |  | 348                 |  |
| 349                          |  | 350           |  | 351              |  | 352                 |  |
| 353                          |  | 354           |  | 355              |  | 356                 |  |
| 357                          |  | 358           |  | 359              |  | 360                 |  |
| 361                          |  | 362           |  | 363              |  | 364                 |  |
| 365                          |  | 366           |  | 367              |  | 368                 |  |
| 369                          |  | 370           |  | 371              |  | 372                 |  |
| 373                          |  | 374           |  | 375              |  | 376                 |  |
| 377                          |  | 378           |  | 379              |  | 380                 |  |
| 381                          |  | 382           |  | 383              |  | 384                 |  |
| 385                          |  | 386           |  | 387              |  | 388                 |  |
| 389                          |  | 390           |  | 391              |  | 392                 |  |
| 393                          |  | 394           |  | 395              |  | 396                 |  |
| 397                          |  | 398           |  | 399              |  | 400                 |  |
| 401                          |  | 402           |  | 403              |  | 404                 |  |
| 405                          |  | 406           |  | 407              |  | 408                 |  |
| 409                          |  | 410           |  | 411              |  | 412                 |  |
| 413                          |  | 414           |  | 415              |  | 416                 |  |
| 417                          |  | 418           |  | 419              |  | 420                 |  |
| 421                          |  | 422           |  | 423              |  | 424                 |  |
| 425                          |  | 426           |  | 427              |  | 428                 |  |
| 429                          |  | 430           |  | 431              |  | 432                 |  |
| 433                          |  | 434           |  | 435              |  | 436                 |  |
| 437                          |  | 438           |  | 439              |  | 440                 |  |
| 441                          |  | 442           |  | 443              |  | 444                 |  |
| 445                          |  | 446           |  | 447              |  | 448                 |  |
| 449                          |  | 450           |  | 451              |  | 452                 |  |
| 453                          |  | 454           |  | 455              |  | 456                 |  |
| 457                          |  | 458           |  | 459              |  | 460                 |  |
| 461                          |  | 462           |  | 463              |  | 464                 |  |
| 465                          |  | 466           |  | 467              |  | 468                 |  |
| 469                          |  | 470           |  | 471              |  | 472                 |  |
| 473                          |  | 474           |  | 475              |  | 476                 |  |
| 477                          |  | 478           |  | 479              |  | 480                 |  |
| 481                          |  | 482           |  | 483              |  | 484                 |  |
| 485                          |  | 486           |  | 487              |  | 488                 |  |
| 489                          |  | 490           |  | 491              |  | 492                 |  |
| 493                          |  | 494           |  | 495              |  | 496                 |  |
| 497                          |  | 498           |  | 499              |  | 500                 |  |
| 501                          |  | 502           |  | 503              |  | 504                 |  |
| 505                          |  | 506           |  | 507              |  | 508                 |  |
| 509                          |  | 510           |  | 511              |  | 512                 |  |
| 513                          |  | 514           |  | 515              |  | 516                 |  |
| 517                          |  | 518           |  | 519              |  | 520                 |  |
| 521                          |  | 522           |  | 523              |  | 524                 |  |
| 525                          |  | 526           |  | 527              |  | 528                 |  |
| 529                          |  | 530           |  | 531              |  | 532                 |  |
| 533                          |  | 534           |  | 535              |  | 536                 |  |
| 537                          |  | 538           |  | 539              |  | 540                 |  |
| 541                          |  | 542           |  | 543              |  | 544                 |  |
| 545                          |  | 546           |  | 547              |  | 548                 |  |
| 549                          |  | 550           |  | 551              |  | 552                 |  |
| 553                          |  | 554           |  | 555              |  | 556                 |  |
| 557                          |  | 558           |  | 559              |  | 560                 |  |
| 561                          |  | 562           |  | 563              |  | 564                 |  |
| 565                          |  | 566           |  | 567              |  | 568                 |  |
| 569                          |  | 570           |  | 571              |  | 572                 |  |
| 573                          |  | 574           |  | 575              |  | 576                 |  |
| 577                          |  | 578           |  | 579              |  | 580                 |  |
| 581                          |  | 582           |  | 583              |  | 584                 |  |
| 585                          |  | 586           |  | 587              |  | 588                 |  |
| 589                          |  | 590           |  | 591              |  | 592                 |  |
| 593                          |  | 594           |  | 595              |  | 596                 |  |
| 597                          |  | 598           |  | 599              |  | 600                 |  |
| 601                          |  | 602           |  | 603              |  | 604                 |  |
| 605                          |  | 606           |  | 607              |  | 608                 |  |
| 609                          |  | 610           |  | 611              |  | 612                 |  |
| 613                          |  | 614           |  | 615              |  | 616                 |  |
| 617                          |  | 618           |  | 619              |  | 620                 |  |
| 621                          |  | 622           |  | 623              |  | 624                 |  |
| 625                          |  | 626           |  | 627              |  | 628                 |  |
| 629                          |  | 630           |  | 631              |  | 632                 |  |
| 633                          |  | 634           |  | 635              |  | 636                 |  |
| 637                          |  | 638           |  | 639              |  | 640                 |  |
| 641                          |  | 642           |  | 643              |  | 644                 |  |
| 645                          |  | 646           |  | 647              |  | 648                 |  |
| 649                          |  | 650           |  | 651              |  | 652                 |  |
| 653                          |  | 654           |  | 655              |  | 656                 |  |
| 657                          |  | 658           |  | 659              |  | 660                 |  |
| 661                          |  | 662           |  | 663              |  | 664                 |  |
| 665                          |  | 666           |  | 667              |  | 668                 |  |
| 669                          |  | 670           |  | 671              |  | 672                 |  |
| 673                          |  | 674           |  | 675              |  | 676                 |  |
| 677                          |  | 678           |  | 679              |  | 680                 |  |
| 681                          |  | 682           |  | 683              |  | 684                 |  |
| 685                          |  | 686           |  | 687              |  | 688                 |  |
| 689                          |  | 690           |  | 691              |  | 692                 |  |
| 693                          |  | 694           |  | 695              |  | 696                 |  |
| 697                          |  | 698           |  | 699              |  | 700                 |  |
| 701                          |  | 702           |  | 703              |  | 704                 |  |
| 705                          |  | 706           |  | 707              |  | 708                 |  |
| 709                          |  | 710           |  | 711              |  | 712                 |  |
| 713                          |  | 714           |  | 715              |  | 716                 |  |
| 717                          |  | 718           |  | 719              |  | 720                 |  |
| 721                          |  | 722           |  | 723              |  | 724                 |  |
| 725                          |  | 726           |  | 727              |  | 728                 |  |
| 729                          |  | 730           |  | 731              |  | 732                 |  |
| 733                          |  | 734           |  | 735              |  | 736                 |  |
| 737                          |  | 738           |  | 739              |  | 740                 |  |
| 741                          |  | 742           |  | 743              |  | 744                 |  |
| 745                          |  | 746           |  | 747              |  | 748                 |  |
| 749                          |  | 750           |  | 751              |  | 752                 |  |
| 753                          |  | 754           |  | 755              |  | 756                 |  |
| 757                          |  | 758           |  | 759              |  | 760                 |  |
| 761                          |  | 762           |  | 763              |  | 764                 |  |
| 765                          |  | 766           |  |                  |  |                     |  |

| VESSEL<br>R/V Kilo Moana |     | PROJECT & LEG<br>HM0303D     |     |           |    | DSDB I.D.<br>KN0303 |    |            |     | STATION DESIGNATION |      |            |       |             |    |             |   |                 |    |                 |      |              |  |
|--------------------------|-----|------------------------------|-----|-----------|----|---------------------|----|------------|-----|---------------------|------|------------|-------|-------------|----|-------------|---|-----------------|----|-----------------|------|--------------|--|
| CONSC<br>CAST #          |     | LATITUDE                     |     | LONGITUDE |    | DATE                |    | TIME (GMT) |     | WET BULB            |      | WIND DIRL. |       | WIND SPD.   |    | CLOUD (amt) |   | WEATHER         |    | BOTTOM<br>DEPTH |      | STA. NAME/ID |  |
| DEG                      | MIN | DEG                          | MIN | DAY       | MO | YR                  | HR | MIN        | SEC | (°C)                | (°C) | (deg)      | (m/s) | *           | *  | *           | * | (m)             |    |                 |      |              |  |
| 15                       | 59  | 11                           | 56  | N         | 14 | 03                  | 07 | 12         | 36  | 07                  | 40   | 5          | 25    | 7           | 13 | 2           | 2 | 21              | 01 | 29              | AT80 |              |  |
| SBE 9+                   |     | JD/TIME                      |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| PRESS SN                 |     | DATA ON                      |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| PRI TEMP SN              |     | START DOWN                   |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| SEC TEMP SN              |     | AT DEPTH                     |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| PRI COND SN              |     | AT SURFACE                   |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| SEC COND SN              |     | PAR S/N                      |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| TRIP DEPTH               |     | FLUOR S/N                    |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| POS.                     |     | CTD CONVERTED MONITOR VALUES |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| 5                        |     | Bottom                       |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| 6                        |     | 100                          |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| 8                        |     | 75                           |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| 9                        |     | 50                           |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| 10                       |     | 40                           |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| 11                       |     | 30                           |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| 17                       |     | 20                           |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| 20                       |     | 10                           |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| 21                       |     | 0                            |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| 22                       |     |                              |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| 23                       |     |                              |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |
| 24                       |     |                              |     | DATE      |    | TIME (GMT)          |    | WET BULB   |     | WIND DIRL.          |      | WIND SPD.  |       | CLOUD (amt) |    | WEATHER     |   | BOTTOM<br>DEPTH |    | STA. NAME/ID    |      |              |  |

| VESSEL          |  | PROJECT & LEG                |  | DSD8 I.D.          |  | STATION DESIGNATION  |  |
|-----------------|--|------------------------------|--|--------------------|--|----------------------|--|
| R/V Kilo Moana  |  | KMD305p                      |  | KMD309             |  | JLB                  |  |
| CONSC CAST #    |  | LATITUDE                     |  | LONGITUDE          |  | DATE JD= 127         |  |
| DEG MIN         |  | DEG MIN                      |  | DAY MO YR          |  | TIME (GMT) HR MIN    |  |
| 153 59 06.22 N  |  | 14 03 00.83 W                |  | 07 MAY 03          |  | 13 34 07.50          |  |
| SBE 9+          |  | TIMES                        |  | JD/TIME            |  | DATA LOCATION        |  |
| PRESS SN        |  | DATA ON                      |  |                    |  | Tape/Diskette ID     |  |
| PRI TEMP SN     |  | START DOWN                   |  |                    |  | File Name/Header     |  |
| SEC TEMP SN     |  | AT DEPTH                     |  |                    |  |                      |  |
| PRI COND SN     |  | AT SURFACE                   |  |                    |  |                      |  |
| SEC COND SN     |  | PAR S/N                      |  | FLUOR S/N          |  | MAX. DEPTH = 161 m   |  |
| POS. TRIP DEPTH |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |
| 1 Bottom        |  | PRESSURE                     |  | PRI. TEMP.         |  | SEC. TEMP.           |  |
| 2 125           |  |                              |  |                    |  | SALINITY             |  |
| 3 100           |  |                              |  |                    |  | SAL                  |  |
| 4 75            |  |                              |  |                    |  | NUTR.                |  |
| 5 50            |  |                              |  |                    |  | CHL.                 |  |
| 6 40            |  |                              |  |                    |  | WHIT'S NUTR.         |  |
| 7 30            |  |                              |  |                    |  |                      |  |
| 8 20            |  |                              |  |                    |  |                      |  |
| 9 10            |  |                              |  |                    |  |                      |  |
| 10 0            |  |                              |  |                    |  |                      |  |
| 11              |  |                              |  |                    |  |                      |  |
| 12              |  |                              |  |                    |  |                      |  |

5 6 8 9 10 11 17 20 21 22 23 24

| VESSEL         | PROJECT & LEG | DSDB I.D.                    | STATION DESIGNATION    |
|----------------|---------------|------------------------------|------------------------|
| R/V Kilo Moana | KM0309        |                              |                        |
| CONC CAST #    | LATITUDE      | LONGITUDE                    | DATE JD- 127           |
| DEG MIN        | DEG MIN       | DEG MIN                      | DAY MONTH YEAR         |
| 1545900.98N    | 14842.67W     | 07                           | MAY 03                 |
| SBE 9+         | TIMES         | JD/TIME                      |                        |
| PRESS SN       | DATA ON       |                              |                        |
| PRI TEMP SN    | START DOWN    |                              |                        |
| SEC TEMP SN    | AT DEPTH      |                              |                        |
| PRI COND SN    | AT SURFACE    |                              |                        |
| SEC COND SN    | PAR S/N       | FLUOR S/N                    |                        |
| POS.           | TRIP DEPTH    | CTD CONVERTED MONITOR VALUES | SAMPLE BOTTLE DATA     |
|                |               | TIME (GMT)                   | DRY BULB WET BULB      |
|                |               | HR MIN                       | (°C) (°C)              |
|                |               | SEA STATE VISIBILITY         | WIND DIRN. (deg)       |
|                |               | PRESSURE (mb)                | WIND SPD. (m/s)        |
|                |               | CLOUD (amt)                  | WEATHER                |
|                |               | BOTTOM DEPTH (m)             | STA. NAME/ID           |
| 5 1 Bottom     |               | 144507.80                    | 02038275165210229 ATB2 |
| 6 2 200        |               |                              |                        |
| 8 3 175        |               |                              |                        |
| 9 4 150        |               |                              |                        |
| 10 5 125       |               |                              |                        |
| 11 6 100       |               |                              |                        |
| 17 7 75        |               |                              |                        |
| 20 8 50        |               |                              |                        |
| 21 9 30        |               |                              |                        |
| 22 10 20       |               |                              |                        |
| 23 11 10       |               |                              |                        |
| 24 12 0        |               |                              |                        |

| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>K0309       |  | DSDB ID.           |  | STATION DESIGNATION  |  |
|--------------------------|--|------------------------------|--|--------------------|--|----------------------|--|
| CONSC CAST #             |  | LATITUDE                     |  | LONGITUDE          |  | DATE                 |  |
| DEG MIN                  |  | DEG MIN                      |  | DAY MO YR          |  | TIME (GMT)           |  |
| 155 50 57.919 N          |  | 148 44.26 W                  |  | 07 MAY 03          |  | 15 51 09             |  |
| SBE 9+                   |  | TIMES                        |  | JD/TIME            |  | DATA LOCATION        |  |
| PRESS SN                 |  | DATA ON                      |  | Tape/Diskette ID   |  | File Name/Header     |  |
| PRI TEMP SN              |  | START DOWN                   |  |                    |  |                      |  |
| SEC TEMP SN              |  | AT DEPTH                     |  |                    |  |                      |  |
| PRI COND SN              |  | AT SURFACE                   |  |                    |  |                      |  |
| SEC COND SN              |  | PAR S/N                      |  | FLUOR S/N          |  | MAX. DEPTH = 248 m   |  |
| POS. TRIP DEPTH          |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |
| 1 Bottom                 |  | PRESSURE                     |  | PRI. TEMP.         |  | SEC. TEMP.           |  |
| 2 200                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 3 175                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 4 150                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 5 125                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 6 100                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 7 75                     |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 8 50                     |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 9 20                     |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 10 70                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 11 10                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 12 0                     |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 5 1                      |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 6 2                      |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 7 3                      |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 8 4                      |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 9 5                      |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 10 6                     |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 11 7                     |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 12 8                     |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 13 9                     |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 14 10                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 15 11                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 16 12                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 17 13                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 18 14                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 19 15                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 20 16                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 21 17                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 22 18                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 23 19                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 24 20                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 25 21                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 26 22                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 27 23                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 28 24                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 29 25                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 30 26                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 31 27                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 32 28                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 33 29                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 34 30                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 35 31                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 36 32                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 37 33                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 38 34                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 39 35                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 40 36                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 41 37                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 42 38                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 43 39                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 44 40                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 45 41                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 46 42                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 47 43                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 48 44                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 49 45                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 50 46                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 51 47                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 52 48                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 53 49                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 54 50                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 55 51                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 56 52                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 57 53                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 58 54                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 59 55                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 60 56                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 61 57                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 62 58                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 63 59                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 64 60                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 65 61                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 66 62                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 67 63                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 68 64                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 69 65                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 70 66                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 71 67                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 72 68                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 73 69                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 74 70                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 75 71                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 76 72                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 77 73                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 78 74                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 79 75                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 80 76                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 81 77                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 82 78                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 83 79                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 84 80                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 85 81                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 86 82                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 87 83                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 88 84                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 89 85                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 90 86                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 91 87                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 92 88                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 93 89                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 94 90                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 95 91                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 96 92                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 97 93                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 98 94                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 99 95                    |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 100 96                   |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 101 97                   |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 102 98                   |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 103 99                   |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 104 100                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 105 101                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 106 102                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 107 103                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 108 104                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 109 105                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 110 106                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 111 107                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 112 108                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 113 109                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 114 110                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 115 111                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 116 112                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 117 113                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 118 114                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 119 115                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 120 116                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 121 117                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 122 118                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 123 119                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 124 120                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 125 121                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 126 122                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 127 123                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 128 124                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 129 125                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 130 126                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 131 127                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 132 128                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 133 129                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 134 130                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 135 131                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 136 132                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 137 133                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 138 134                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 139 135                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 140 136                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 141 137                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 142 138                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 143 139                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 144 140                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 145 141                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 146 142                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 147 143                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 148 144                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 149 145                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 150 146                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 151 147                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 152 148                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 153 149                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 154 150                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 155 151                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 156 152                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 157 153                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 158 154                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 159 155                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 160 156                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 161 157                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 162 158                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 163 159                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 164 160                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 165 161                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 166 162                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 167 163                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 168 164                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 169 165                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 170 166                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 171 167                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 172 168                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 173 169                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 174 170                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 175 171                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 176 172                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 177 173                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 178 174                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 179 175                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 180 176                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 181 177                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 182 178                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 183 179                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
| 184 180                  |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
|                          |  |                              |  |                    |  |                      |  |

| VESSEL<br>R/V Kilo Moana     |    | PROJECT & LEG<br>KM0305 |    | DSDB I.D.<br>KM0309 |    | STATION DESIGNATION |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
|------------------------------|----|-------------------------|----|---------------------|----|---------------------|----|------------|----|----------|----|----------|---|----------|---|-----------|----|------------|----|--------------|---|--------------------|---|---------|---|--------------|----|----------------------|---|---|-----|----|------|--|
| CONSC<br>CAST #              |    | LATITUDE                |    | LONGITUDE           |    | DATE JD= 127        |    | TIME (GMT) |    | DRY BULB |    | WET BULB |   | PRESSURE |   | SEA STATE |    | WIND DIRN. |    | WIND SPD.    |   | CLOUD (amt)        |   | WEATHER |   | BOTTOM DEPTH |    | STA. NAME/ID         |   |   |     |    |      |  |
|                              |    | DEG MIN                 |    | DEG MIN             |    | DAY MO YR           |    | HR MIN     |    | (°C)     |    | (°C)     |   | (mb)     |   | * *       |    | (deg)      |    | (m/s)        |   | * *                |   | * *     |   | (m)          |    |                      |   |   |     |    |      |  |
| 5                            | 1  | 15                      | 50 | 53                  | 49 | N                   | 14 | 47         | 04 | W        | 07 | M        | A | Y        | 0 | 3         | 17 | 05         | 09 | 00           | 6 | 02                 | 1 | 3       | 8 | 27           | 51 | 3                    | 4 | 2 | 102 | 89 | GB11 |  |
| 6                            | 2  | SBE 9+                  |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 7                            | 3  | PRESS SN                |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 8                            | 4  | PRI TEMP SN             |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 9                            | 5  | SEC TEMP SN             |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 10                           | 6  | PRI COND SN             |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 11                           | 7  | SEC COND SN             |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 12                           | 8  | PAR S/N                 |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 13                           | 9  | FLUOR S/N               |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| CTD CONVERTED MONITOR VALUES |    |                         |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| POS.                         |    | TRIP DEPTH              |    | PRESSURE            |    | PRI. TEMP.          |    | SEC. TEMP. |    | SALINITY |    | SALINITY |   | SAL.     |   | NUTR.     |    | CHL.       |    | WHIT'S NUTR. |   | SAMPLE BOTTLE DATA |   |         |   |              |    | SAMPLE BOTTLE NUMBER |   |   |     |    |      |  |
| 5                            | 1  | Bottom                  |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 6                            | 2  | 250                     |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 7                            | 3  | 225                     |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 8                            | 4  | 200                     |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 9                            | 5  | 175                     |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 10                           | 6  | 150                     |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 11                           | 7  | 100                     |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 12                           | 8  | 75                      |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 13                           | 9  | 50                      |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 14                           | 10 | 30                      |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 15                           | 11 | 20                      |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 16                           | 12 | 10                      |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |
| 17                           | 13 | 0                       |    |                     |    |                     |    |            |    |          |    |          |   |          |   |           |    |            |    |              |   |                    |   |         |   |              |    |                      |   |   |     |    |      |  |

Cleaned air bleed valve  
MAX. DEPTH = 285 m

5 6 8 9 10 11 17 20 21 22 23 24 1

[illegible]

| VESSEL          |        | PROJECT & LEG                |            | DSDB I.D.          |          | STATION DESIGNATION  |              |
|-----------------|--------|------------------------------|------------|--------------------|----------|----------------------|--------------|
| R/V Kilo Moana  |        | KM0305b                      |            |                    |          |                      |              |
| CONSC CAST #    | 36.60  | 52.94                        |            | 218                |          |                      |              |
| DEG             | MIN    | DEG                          | MIN        | DATE               | DATE     | TIME                 | TIME         |
| 159             | 58     | 36                           | 43         | N                  | 14       | 8                    | 53           |
| LATITUDE        |        | LONGITUDE                    |            | DATE               |          | TIME                 |              |
| 36.60           |        | 52.94                        |            | 14 MAY 03          |          | 08:53                |              |
| SBE 9+          |        | JD/TIME                      |            | DATE               |          | TIME                 |              |
|                 |        |                              |            | 14 MAY 03          |          | 08:53                |              |
| PRESS SN        |        | DATA ON                      |            | Tape/Diskette ID   |          | File Name/Header     |              |
| PRI TEMP SN     |        | START DOWN                   |            |                    |          |                      |              |
| SEC TEMP SN     |        | AT DEPTH                     |            |                    |          |                      |              |
| PRI COND SN     |        | AT SURFACE                   |            |                    |          |                      |              |
| SEC COND SN     |        | PAR S/N                      |            | FLUOR S/N          |          | MAX DEPTH =          |              |
|                 |        |                              |            |                    |          | m                    |              |
| POS. TRIP DEPTH |        | CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA |          | SAMPLE BOTTLE NUMBER |              |
|                 |        |                              |            |                    |          |                      |              |
| 1               | bottom | PRESSURE                     | PRI. TEMP. | SEC. TEMP.         | SALINITY | SALINITY             | WHIT'S NUTR. |
| 2               | 84     |                              |            |                    |          | 145                  |              |
| 3               | 64     |                              |            |                    |          | 146                  |              |
| 4               | 44     |                              |            |                    |          | 147                  |              |
| 5               | 34     |                              |            |                    |          | 148                  |              |
| 6               | 24     |                              |            |                    |          | 149                  |              |
| 7               | 14     |                              |            |                    |          | 111 f                |              |
| 8               | 4      |                              |            |                    |          | 112 f                |              |
| 9               |        |                              |            |                    |          |                      |              |
| 10              |        |                              |            |                    |          |                      |              |
| 11              |        |                              |            |                    |          |                      |              |
| 12              |        |                              |            |                    |          |                      |              |



| VESSEL                       |  | PROJECT & LEG                |  | STATION DESIGNATION          |  |
|------------------------------|--|------------------------------|--|------------------------------|--|
| R/V Kilo Moana               |  | KM0305b                      |  | DSDB I.D.                    |  |
| 36.73                        |  | 52.63                        |  | 2353                         |  |
| CONSC CAST #                 |  | LATITUDE                     |  | TIME (GMT)                   |  |
| 11615836.70N                 |  | 14853.18W                    |  | 08 MAY 03                    |  |
| SBE 9+                       |  | LONGITUDE                    |  | DATE ID=                     |  |
| PRESS SN                     |  | DEG MIN                      |  | DAY MO YR                    |  |
| PRI TEMP SN                  |  | 14853.18                     |  | 08 MAY 03                    |  |
| SEC TEMP SN                  |  | 14853.18                     |  | 08 MAY 03                    |  |
| PRI COND SN                  |  | 14853.18                     |  | 08 MAY 03                    |  |
| SEC COND SN                  |  | 14853.18                     |  | 08 MAY 03                    |  |
| POS. TRIP DEPTH              |  | PAR S/N                      |  | FLUOR S/N                    |  |
| 1 b-Ham                      |  | 14853.18                     |  | 08 MAY 03                    |  |
| 2 148                        |  | 14853.18                     |  | 08 MAY 03                    |  |
| 3 75                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 4 50                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 5 40                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 6 20                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 7 10                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 8 0                          |  | 14853.18                     |  | 08 MAY 03                    |  |
| 9                            |  | 14853.18                     |  | 08 MAY 03                    |  |
| 10                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| 11                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| 12                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| CTD CONVERTED MONITOR VALUES |  | CTD CONVERTED MONITOR VALUES |  | CTD CONVERTED MONITOR VALUES |  |
| PRESSURE                     |  | PRI. TEMP.                   |  | SEC. TEMP.                   |  |
| 1 b-Ham                      |  | 14853.18                     |  | 08 MAY 03                    |  |
| 2 148                        |  | 14853.18                     |  | 08 MAY 03                    |  |
| 3 75                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 4 50                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 5 40                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 6 20                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 7 10                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 8 0                          |  | 14853.18                     |  | 08 MAY 03                    |  |
| 9                            |  | 14853.18                     |  | 08 MAY 03                    |  |
| 10                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| 11                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| 12                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| SALINITY                     |  | SALINITY                     |  | SALINITY                     |  |
| 1 b-Ham                      |  | 14853.18                     |  | 08 MAY 03                    |  |
| 2 148                        |  | 14853.18                     |  | 08 MAY 03                    |  |
| 3 75                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 4 50                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 5 40                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 6 20                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 7 10                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 8 0                          |  | 14853.18                     |  | 08 MAY 03                    |  |
| 9                            |  | 14853.18                     |  | 08 MAY 03                    |  |
| 10                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| 11                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| 12                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| WIND DIRN.                   |  | WIND DIRN.                   |  | WIND DIRN.                   |  |
| 1 b-Ham                      |  | 14853.18                     |  | 08 MAY 03                    |  |
| 2 148                        |  | 14853.18                     |  | 08 MAY 03                    |  |
| 3 75                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 4 50                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 5 40                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 6 20                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 7 10                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 8 0                          |  | 14853.18                     |  | 08 MAY 03                    |  |
| 9                            |  | 14853.18                     |  | 08 MAY 03                    |  |
| 10                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| 11                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| 12                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| WIND SPD.                    |  | WIND SPD.                    |  | WIND SPD.                    |  |
| 1 b-Ham                      |  | 14853.18                     |  | 08 MAY 03                    |  |
| 2 148                        |  | 14853.18                     |  | 08 MAY 03                    |  |
| 3 75                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 4 50                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 5 40                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 6 20                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 7 10                         |  | 14853.18                     |  | 08 MAY 03                    |  |
| 8 0                          |  | 14853.18                     |  | 08 MAY 03                    |  |
| 9                            |  | 14853.18                     |  | 08 MAY 03                    |  |
| 10                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| 11                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| 12                           |  | 14853.18                     |  | 08 MAY 03                    |  |
| SEA STATE                    |  | SEA STATE                    |  | SEA STATE                    |  |
| 1 b-Ham                      |  | 14853.18                     |  | 08 MAY 03                    |  |
| 2 148                        |  | 14853.18                     |  | 08 MAY 03                    |  |
| 3 75                         |  | 14853.18                     |  | 08 MAY 0                     |  |

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| VESSEL                                                                                                                                                                                                                                                                                                                                                                  |            | PROJECT & LEG |  | DSD8 I.D. |  | STATION DESIGNATION |  |            |  |          |  |           |  |            |  |            |  |              |  |              |  |              |  |              |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------|--|-----------|--|---------------------|--|------------|--|----------|--|-----------|--|------------|--|------------|--|--------------|--|--------------|--|--------------|--|--------------|--|
| R/V Kilo Moana                                                                                                                                                                                                                                                                                                                                                          |            | KM0305b       |  |           |  |                     |  |            |  |          |  |           |  |            |  |            |  |              |  |              |  |              |  |              |  |
| CONSC CAST #                                                                                                                                                                                                                                                                                                                                                            | 53.59      | 49.44         |  | 0334      |  | DATE JD=            |  | TIME (GMT) |  | WET BULB |  | PRESSURE  |  | SEA STATE  |  | WIND DIRN. |  | WIND SPD.    |  | WEATHER      |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
|                                                                                                                                                                                                                                                                                                                                                                         |            | LONGITUDE     |  | DATE      |  | TIME                |  | WET BULB   |  | PRESSURE |  | SEA STATE |  | WIND DIRN. |  | WIND SPD.  |  | WEATHER      |  | BOTTOM DEPTH |  | STA. NAME/ID |  |              |  |
|                                                                                                                                                                                                                                                                                                                                                                         |            | DEG MIN       |  | DAY MO YR |  | HR MIN              |  | °C         |  | (mb)     |  | * * *     |  | (deg)      |  | (m/s)      |  | * * *        |  | (m)          |  |              |  |              |  |
| 164                                                                                                                                                                                                                                                                                                                                                                     | 5853.58    | 14847.41      |  | 8MAY03    |  | 0335                |  | 9.9        |  | 7.9      |  | 2438      |  | 2654       |  | 6          |  | 281          |  | 291          |  | 011          |  |              |  |
| <div> <div>SBE 9+</div> <div> <div>TIMES</div> <div>DATA ON</div> <div>START DOWN</div> <div>AT DEPTH</div> <div>AT SURFACE</div> </div> </div> <div> <div>DATE</div> <div>TIME</div> <div>WET BULB</div> <div>PRESSURE</div> <div>SEA STATE</div> <div>WIND DIRN.</div> <div>WIND SPD.</div> <div>WEATHER</div> <div>BOTTOM DEPTH</div> <div>STA. NAME/ID</div> </div> |            |               |  |           |  |                     |  |            |  |          |  |           |  |            |  |            |  |              |  |              |  |              |  |              |  |
| <div> <div>DATA LOCATION</div> <div>File Name/Header</div> <div>Tape/Diskette ID</div> </div> <div> <div>MAX. DEPTH =</div> <div>m</div> </div>                                                                                                                                                                                                                         |            |               |  |           |  |                     |  |            |  |          |  |           |  |            |  |            |  |              |  |              |  |              |  |              |  |
| <div> <div>CTD CONVERTED MONITOR VALUES</div> <div>FLUOR S/N</div> <div>PAR S/N</div> </div>                                                                                                                                                                                                                                                                            |            |               |  |           |  |                     |  |            |  |          |  |           |  |            |  |            |  |              |  |              |  |              |  |              |  |
| POS.                                                                                                                                                                                                                                                                                                                                                                    | TRIP DEPTH | PRESSURE      |  | PRL TEMP. |  | SEC. TEMP.          |  | SALINITY   |  | SALINITY |  | SAL       |  | NUTR.      |  | CHL        |  | WHIT'S NUTR. |  |              |  |              |  |              |  |
| 1                                                                                                                                                                                                                                                                                                                                                                       | bottom     | 5-            |  |           |  |                     |  |            |  |          |  | 5         |  | 216        |  | 155        |  |              |  |              |  |              |  |              |  |
| 2                                                                                                                                                                                                                                                                                                                                                                       | 275        | 6-            |  |           |  |                     |  |            |  |          |  | 6         |  |            |  | 156        |  |              |  |              |  |              |  |              |  |
| 3                                                                                                                                                                                                                                                                                                                                                                       | 250        | 8-            |  |           |  |                     |  |            |  |          |  | 8         |  |            |  | 157        |  |              |  |              |  |              |  |              |  |
| 4                                                                                                                                                                                                                                                                                                                                                                       | 225        | 9-            |  |           |  |                     |  |            |  |          |  | 9         |  |            |  | 158        |  |              |  |              |  |              |  |              |  |
| 5                                                                                                                                                                                                                                                                                                                                                                       | 200        | 10-           |  |           |  |                     |  |            |  |          |  | 10        |  |            |  | 159        |  |              |  |              |  |              |  |              |  |
| 6                                                                                                                                                                                                                                                                                                                                                                       | 175        | 11-           |  |           |  |                     |  |            |  |          |  | 11        |  |            |  | 160        |  |              |  |              |  |              |  |              |  |
| 7                                                                                                                                                                                                                                                                                                                                                                       | 150        | 12-           |  |           |  |                     |  |            |  |          |  | 12        |  |            |  | 161        |  |              |  |              |  |              |  |              |  |
| 8                                                                                                                                                                                                                                                                                                                                                                       | 125        | 13-           |  |           |  |                     |  |            |  |          |  | 13        |  |            |  | 162        |  |              |  |              |  |              |  |              |  |
| 9                                                                                                                                                                                                                                                                                                                                                                       | 100        | 14-           |  |           |  |                     |  |            |  |          |  | 14        |  |            |  | 163        |  |              |  |              |  |              |  |              |  |
| 10                                                                                                                                                                                                                                                                                                                                                                      | 75         | 15-           |  |           |  |                     |  |            |  |          |  | 15        |  |            |  | 164        |  |              |  |              |  |              |  |              |  |
| 11                                                                                                                                                                                                                                                                                                                                                                      | 50         | 16-           |  |           |  |                     |  |            |  |          |  | 16        |  |            |  | 165        |  |              |  |              |  |              |  |              |  |
| 12                                                                                                                                                                                                                                                                                                                                                                      | 25         | 17-           |  |           |  |                     |  |            |  |          |  | 17        |  |            |  | 166        |  |              |  |              |  |              |  |              |  |
| <div> <div>1</div> <div>167 f</div> </div>                                                                                                                                                                                                                                                                                                                              |            |               |  |           |  |                     |  |            |  |          |  |           |  |            |  |            |  |              |  |              |  |              |  |              |  |

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| VESSEL                       |  | PROJECT & LEG |  | DSDB I.D. |  | STATION DESIGNATION |  |          |  |              |  |              |  |                 |  |             |  |                |  |              |  |             |  |              |  |              |  |              |  |              |  |       |  |
|------------------------------|--|---------------|--|-----------|--|---------------------|--|----------|--|--------------|--|--------------|--|-----------------|--|-------------|--|----------------|--|--------------|--|-------------|--|--------------|--|--------------|--|--------------|--|--------------|--|-------|--|
| R/V Kilo Moana               |  | KM0305b       |  |           |  |                     |  |          |  |              |  |              |  |                 |  |             |  |                |  |              |  |             |  |              |  |              |  |              |  |              |  |       |  |
| CONSCAST #                   |  | 57.94         |  | 44.45     |  | TIME (GMT)          |  | WET BULB |  | PRESSURE     |  | SEA STATE    |  | WIND DIRN.      |  | WIND SPD.   |  | CLOUD (amt)    |  | TYPE         |  | WEATHER     |  | BOTTOM DEPTH |  | STA. NAME/ID |  |              |  |              |  |       |  |
| 11655857.127N                |  | 14844.09W     |  | DAY 18    |  | MO MAY              |  | YR 03    |  | DRY BULB 9.2 |  | WET BULB 7.2 |  | PRESSURE 1013.8 |  | SEA STATE 3 |  | WIND DIRN. 241 |  | WIND SPD. 09 |  | CLOUD 28    |  | TYPE 1       |  | WEATHER 253  |  | 253          |  |              |  |       |  |
| SBE 9+                       |  | LONGITUDE     |  | DATE JD=  |  | TIME (GMT)          |  | WET BULB |  | PRESSURE     |  | SEA STATE    |  | WIND DIRN.      |  | WIND SPD.   |  | CLOUD (amt)    |  | TYPE         |  | WEATHER     |  | BOTTOM DEPTH |  | STA. NAME/ID |  |              |  |              |  |       |  |
| PRESS SN                     |  | DEG MIN       |  | DAY       |  | MO                  |  | YR       |  | DRY BULB     |  | WET BULB     |  | PRESSURE        |  | SEA STATE   |  | WIND DIRN.     |  | WIND SPD.    |  | CLOUD (amt) |  | TYPE         |  | WEATHER      |  | BOTTOM DEPTH |  | STA. NAME/ID |  |       |  |
| PRI TEMP SN                  |  | 14844.09      |  | 18        |  | MAY                 |  | 03       |  | 9.2          |  | 7.2          |  | 1013.8          |  | 3           |  | 241            |  | 09           |  | 28          |  | 1            |  | 253          |  | 253          |  | AT 83        |  |       |  |
| SEC TEMP SN                  |  | DEG MIN       |  | DAY       |  | MO                  |  | YR       |  | DRY BULB     |  | WET BULB     |  | PRESSURE        |  | SEA STATE   |  | WIND DIRN.     |  | WIND SPD.    |  | CLOUD (amt) |  | TYPE         |  | WEATHER      |  | BOTTOM DEPTH |  | STA. NAME/ID |  |       |  |
| PRI COND SN                  |  | 14844.09      |  | 18        |  | MAY                 |  | 03       |  | 9.2          |  | 7.2          |  | 1013.8          |  | 3           |  | 241            |  | 09           |  | 28          |  | 1            |  | 253          |  | 253          |  | AT 83        |  |       |  |
| SEC COND SN                  |  | DEG MIN       |  | DAY       |  | MO                  |  | YR       |  | DRY BULB     |  | WET BULB     |  | PRESSURE        |  | SEA STATE   |  | WIND DIRN.     |  | WIND SPD.    |  | CLOUD (amt) |  | TYPE         |  | WEATHER      |  | BOTTOM DEPTH |  | STA. NAME/ID |  |       |  |
| PAR S/N                      |  | 14844.09      |  | 18        |  | MAY                 |  | 03       |  | 9.2          |  | 7.2          |  | 1013.8          |  | 3           |  | 241            |  | 09           |  | 28          |  | 1            |  | 253          |  | 253          |  | AT 83        |  |       |  |
| FLUOR S/N                    |  | 14844.09      |  | 18        |  | MAY                 |  | 03       |  | 9.2          |  | 7.2          |  | 1013.8          |  | 3           |  | 241            |  | 09           |  | 28          |  | 1            |  | 253          |  | 253          |  | AT 83        |  |       |  |
| CTD CONVERTED MONITOR VALUES |  | 14844.09      |  | 18        |  | MAY                 |  | 03       |  | 9.2          |  | 7.2          |  | 1013.8          |  | 3           |  | 241            |  | 09           |  | 28          |  | 1            |  | 253          |  | 253          |  | AT 83        |  |       |  |
| POS. TRIP DEPTH              |  | 14844.09      |  | 18        |  | MAY                 |  | 03       |  | 9.2          |  | 7.2          |  | 1013.8          |  | 3           |  | 241            |  | 09           |  | 28          |  | 1            |  | 253          |  | 253          |  | AT 83        |  |       |  |
| 1 bottom                     |  | 57            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| 2 225                        |  | 67            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| 3 200                        |  | 87            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| 4 175                        |  | 97            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| 5 160                        |  | 107           |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| 6 125                        |  | 117           |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| 7 100                        |  | 177           |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| 8 75                         |  | 207           |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| 9 50                         |  | 217           |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| 10 30                        |  | 227           |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| 11 20                        |  | 237           |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| 12 10                        |  | 247           |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| SAL                          |  | 5             |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| NUTR.                        |  | 6             |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| CHL.                         |  | 8             |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| WHIT'S NUTR.                 |  | 9             |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| SAL                          |  | 10            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| NUTR.                        |  | 11            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| CHL.                         |  | 17            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| WHIT'S NUTR.                 |  | 20            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| SAL                          |  | 21            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| NUTR.                        |  | 22            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| CHL.                         |  | 23            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| WHIT'S NUTR.                 |  | 24            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| SAL                          |  | 25            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| NUTR.                        |  | 26            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| CHL.                         |  | 27            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| WHIT'S NUTR.                 |  | 28            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| SAL                          |  | 29            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| NUTR.                        |  | 30            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| CHL.                         |  | 31            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| WHIT'S NUTR.                 |  | 32            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| SAL                          |  | 33            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| NUTR.                        |  | 34            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| CHL.                         |  | 35            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| WHIT'S NUTR.                 |  | 36            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| SAL                          |  | 37            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| NUTR.                        |  | 38            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| CHL.                         |  | 39            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| WHIT'S NUTR.                 |  | 40            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| SAL                          |  | 41            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| NUTR.                        |  | 42            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| CHL.                         |  | 43            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| WHIT'S NUTR.                 |  | 44            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| SAL                          |  | 45            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| NUTR.                        |  | 46            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2          |  | 7.2             |  | 1013.8      |  | 3              |  | 241          |  | 09          |  | 28           |  | 1            |  | 253          |  | 253          |  | AT 83 |  |
| CHL.                         |  | 47            |  | 14844.09  |  | 18                  |  | MAY      |  | 03           |  | 9.2</        |  |                 |  |             |  |                |  |              |  |             |  |              |  |              |  |              |  |              |  |       |  |

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| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0305b |  | DSD8 I.D. |  | STATION DESIGNATION |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
|--------------------------|--|--------------------------|--|-----------|--|---------------------|--|------------|--|----------|--|----------|--|----------|--|-----------|--|------------|--|-----------|--|-------------|--|---------|--|--------------|--|--------------|--|
| CONSC<br>CAST #          |  | LATITUDE                 |  | LONGITUDE |  | DATE JD=            |  | TIME (GMT) |  | DRY BULB |  | WET BULB |  | PRESSURE |  | SEA STATE |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| DEG MIN                  |  | DEG MIN                  |  | DEG MIN   |  | DAY MO YR           |  | HR MIN     |  | °C       |  | °C       |  | (mb)     |  | * *       |  | (deg)      |  | (m/s)     |  | * *         |  | * *     |  | (m)          |  |              |  |
| 43.79                    |  | 148.48                   |  | 40.56     |  | 18 MAR 03           |  | 07:44      |  | 18.0     |  | 16.4     |  | 1024.3   |  | 3         |  | 24         |  | 6         |  | 3           |  | 1       |  | 18           |  | 18           |  |
| SBE 9+                   |  | N                        |  | E         |  | JD/TIME             |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRESS SN                 |  |                          |  |           |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI TEMP SN              |  |                          |  |           |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC TEMP SN              |  |                          |  |           |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI COND SN              |  |                          |  |           |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC COND SN              |  |                          |  |           |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PAR S/N                  |  |                          |  |           |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| FLUOR S/N                |  |                          |  |           |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| TRIP DEPTH               |  |                          |  |           |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| POS.                     |  |                          |  |           |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 1                        |  | bottom                   |  | 5         |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 2                        |  | 150                      |  | 6         |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 3                        |  | 125                      |  | 8         |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 4                        |  | 100                      |  | 9         |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 5                        |  | 75                       |  | 10        |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 6                        |  | 50                       |  | 11        |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 7                        |  | 30                       |  | 12        |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 8                        |  | 20                       |  | 20        |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 9                        |  | 10                       |  | 21        |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 10                       |  | 0                        |  | 22        |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 11                       |  |                          |  |           |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 12                       |  |                          |  |           |  |                     |  |            |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |

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| VESSEL          |  | PROJECT & LEG |  | DSDB I.D. |  | STATION DESIGNATION |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
|-----------------|--|---------------|--|-----------|--|---------------------|--|------------------|--|----------|--|----------|--|----------|--|-----------|--|------------|--|-----------|--|-------------|--|------|--|---------|--|--------------|--|--------------|--|
| R/V Kilo Moana  |  | KM0305b       |  | KM0309    |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| CONSC CAST #    |  | LATITUDE      |  | LONGITUDE |  | DATE JD- 128        |  | TIME (GMT)       |  | DRY BULB |  | WET BULB |  | PRESSURE |  | SEA STATE |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt) |  | TYPE |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
|                 |  | DEG MIN       |  | DEG MIN   |  | DAY MO YR           |  | HR MIN           |  | °C       |  | °C       |  | (mb)     |  | +         |  | (deg)      |  | (m/s)     |  | +           |  | +    |  | (m)     |  |              |  |              |  |
| 1695911.47N     |  | 14836.59W     |  | 08        |  | MAY 03              |  | 095107.9         |  | 06.524   |  | 38227    |  | 094#     |  | 10124     |  | ATB0       |  |           |  |             |  |      |  |         |  |              |  |              |  |
| SBE 9+          |  | TIMES         |  | JD/TIME   |  | DATA LOCATION       |  | REMARKS          |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| PRESS SN        |  | DATA ON       |  |           |  | Tape/Diskette ID    |  | File Name/Header |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| PRI TEMP SN     |  | START DOWN    |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| SEC TEMP SN     |  | AT DEPTH      |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| PRI COND SN     |  | AT SURFACE    |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| SEC COND SN     |  | PAR S/N       |  | FLUOR S/N |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| POS. TRIP DEPTH |  |               |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| 1 Bottom        |  |               |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| 2 100           |  |               |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| 3 75            |  |               |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| 4 50            |  |               |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| 5 40            |  |               |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| 6 30            |  |               |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| 7 20            |  |               |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| 8 10            |  |               |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| 9 0             |  |               |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| 10              |  |               |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| 11              |  |               |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |
| 12              |  |               |  |           |  |                     |  |                  |  |          |  |          |  |          |  |           |  |            |  |           |  |             |  |      |  |         |  |              |  |              |  |

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|--------------------------|--|-------------------------|--|------------------------------|--|----------------------------------|--|------------|--|---------------|--|------------------|--|------------------|--|-----------|--|------------|--|--------------|--|-------------|--|---------|--|--------------|--|--------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KMO309 |  | DSDB I.D.                    |  | STATION DESIGNATION<br><i>AB</i> |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| CONSC<br>CAST #          |  | LATITUDE                |  | LONGITUDE                    |  | DATE JD= 128                     |  | TIME (GMT) |  | DRY BULB      |  | WET BULB         |  | PRESSURE         |  | SEA STATE |  | WIND DIRN. |  | WIND SPD.    |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 172                      |  | 5902.00                 |  | N 14935.61                   |  | W 0808                           |  | MAY 03     |  | 145708.00     |  | 7.00             |  | 18.23            |  | 36        |  | 182        |  | 04           |  | 882         |  | 0227    |  | ATD7         |  |              |  |
| SBE 9+                   |  | DEG MIN                 |  | DEG MIN                      |  | DAY MO YR                        |  | HR MIN     |  | °C            |  | °C               |  | (mb)             |  | *         |  | (m/s)      |  | *            |  | *           |  | (m)     |  |              |  |              |  |
| PRESS SN                 |  |                         |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| PRI TEMP SN              |  |                         |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| SEC TEMP SN              |  |                         |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| PRI COND SN              |  |                         |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| SEC COND SN              |  |                         |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| POS.                     |  | TRIP DEPTH              |  | CTD CONVERTED MONITOR VALUES |  | FLUOR S/N                        |  | PAR S/N    |  | DATA LOCATION |  | Tape/Diskette ID |  | File Name/Header |  | REMARKS   |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 1                        |  | Bottom                  |  | PRESSURE                     |  | PRI. TEMP.                       |  | SEC. TEMP. |  | SALINITY      |  | SALINITY         |  | SAL              |  | NUTR.     |  | CHL.       |  | WHIT'S NUTR. |  |             |  |         |  |              |  |              |  |
| 2                        |  | 200                     |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 3                        |  | 175                     |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 4                        |  | 150                     |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 5                        |  | 125                     |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 6                        |  | 100                     |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 7                        |  | 75                      |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 8                        |  | 50                      |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 9                        |  | 30                      |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 10                       |  | 20                      |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 11                       |  | 10                      |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |
| 12                       |  | 0                       |  |                              |  |                                  |  |            |  |               |  |                  |  |                  |  |           |  |            |  |              |  |             |  |         |  |              |  |              |  |

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| VESSEL         | PROJECT & LEG | DSDB I.D.                    | STATION DESIGNATION                           |
|----------------|---------------|------------------------------|-----------------------------------------------|
| R/V Kilo Moana | KM0305b       | KM0309                       |                                               |
| CONSC CAST #   | LATITUDE      | LONGITUDE                    | DATE JD=                                      |
| DEG MIN        | DEG MIN       | DEG MIN                      | DAY MO YR                                     |
| 174 58 51.23 N | 149 32.23 W   | 08 MAY 03                    | 171308.1106.124361820228                      |
| SBE 9+         | TIMES         | JD/TIME                      | REMARKS                                       |
| PRESS SN       | DATA ON       |                              |                                               |
| PRI TEMP SN    | START DOWN    |                              |                                               |
| SEC TEMP SN    | AT DEPTH      |                              |                                               |
| PRI COND SN    | AT SURFACE    |                              |                                               |
| SEC COND SN    | PAR S/N       | FLUOR S/N                    | Cleaned air bleed valve<br>MAX. DEPTH - 225 m |
| POS.           | TRIP DEPTH    | CTD CONVERTED MONITOR VALUES | SAMPLE BOTTLE DATA                            |
|                |               | PRI. TEMP.                   | SEC. TEMP.                                    |
|                |               | PRESSURE                     | SALINITY                                      |
| 5 1 Bottom     |               |                              |                                               |
| 6 2 200        |               |                              |                                               |
| 8 3 175        |               |                              |                                               |
| 9 4 150        |               |                              |                                               |
| 10 5 125       |               |                              |                                               |
| 11 6 100       |               |                              |                                               |
| 17 7 75        |               |                              |                                               |
| 20 8 50        |               |                              |                                               |
| 21 9 30        |               |                              |                                               |
| 22 10 20       |               |                              |                                               |
| 23 11 10       |               |                              |                                               |
| 24 12 0        |               |                              |                                               |

|                          |            |                              |            |                    |          |                      |        |
|--------------------------|------------|------------------------------|------------|--------------------|----------|----------------------|--------|
| VESSEL<br>R/V Kilo Moana |            | PROJECT & LEG<br>KM0309      |            | DSDB ID.           |          | STATION DESIGNATION  |        |
| CONSC<br>CAST #          |            | LONGITUDE                    |            | DATE               |          | TIME (GMT)           |        |
| DEG                      | MIN        | DEG                          | MIN        | DAY                | MO       | YR                   | HR MIN |
| 17                       | 58         | 149                          | 30         | 01                 | W        | 08                   | 18     |
| SBE 9+                   |            | LATITUDE                     |            | DATE               |          | TIME (GMT)           |        |
| DEG                      | MIN        | DEG                          | MIN        | DAY                | MO       | YR                   | HR MIN |
| 17                       | 58         | 149                          | 30         | 01                 | W        | 08                   | 18     |
| PRESS SN                 |            | DATA ON                      |            | Tape/Diskette ID   |          | File Name/Header     |        |
| PRI TEMP SN              |            | START DOWN                   |            |                    |          |                      |        |
| SEC TEMP SN              |            | AT DEPTH                     |            |                    |          |                      |        |
| PRI COND SN              |            | AT SURFACE                   |            |                    |          |                      |        |
| SEC COND SN              |            | PAR S/N                      |            | FLUOR S/N          |          | MAX. DEPTH - 195 m   |        |
| TRIP DEPTH               |            | CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA |          | SAMPLE BOTTLE NUMBER |        |
| POS.                     | TRIP DEPTH | PRESSURE                     | PRI. TEMP. | SEC. TEMP.         | SALINITY | SAL.                 | CHL.   |
| 1                        | Bottom     |                              |            |                    |          |                      |        |
| 2                        | 175        |                              |            |                    |          | 111                  |        |
| 3                        | 150        |                              |            |                    |          | 112                  |        |
| 4                        | 125        |                              |            |                    |          | 113                  |        |
| 5                        | 100        |                              |            |                    |          | 114                  |        |
| 6                        | 75         |                              |            |                    |          | 115                  |        |
| 7                        | 50         |                              |            |                    |          | 116                  |        |
| 8                        | 40         |                              |            |                    |          | 117                  |        |
| 9                        | 30         |                              |            |                    |          | 118                  |        |
| 10                       | 20         |                              |            |                    |          | 119                  |        |
| 11                       | 10         |                              |            |                    |          | 120 F                |        |
| 12                       | 0          |                              |            |                    |          | 121 F                |        |
|                          |            |                              |            |                    |          | 122 F                | Back   |

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| VESSEL         | PROJECT & LEG      | DSDB ID.                     | STATION DESIGNATION                           |
|----------------|--------------------|------------------------------|-----------------------------------------------|
| R/V Kilo Moana | KM0309<br>KM0305b- |                              |                                               |
| CONSC CAST #   | LATITUDE           | LONGITUDE                    | DATE JD-<br>DAY MO YR                         |
| DEG MIN        | DEG MIN            | DEG MIN                      | TIME (GMT)<br>HR MIN                          |
| 1765842.45 N   | 14928.17 W         | 08 MAY 03                    | 191708.90                                     |
| SBE 9+         | TIMES              | JD/TIME                      | DATA LOCATION                                 |
| PRESS SN       | DATA ON            | Tape/Diskette ID             | File Name/Header                              |
| PRI TEMP SN    | START DOWN         |                              |                                               |
| SEC TEMP SN    | AT DEPTH           |                              |                                               |
| PRI COND SN    | AT SURFACE         |                              |                                               |
| SEC COND SN    | PAR S/N            | FLUOR S/N                    | Cleaned air bleed valve<br>MAX. DEPTH = 158 m |
| POS.           | TRIP DEPTH         | CTD CONVERTED MONITOR VALUES | SAMPLE BOTTLE DATA                            |
|                |                    | PRESSURE                     | SALINITY                                      |
| 5 1 Bottom     |                    | PRI. TEMP.                   | SALINITY                                      |
| 6 2 125        |                    | SEC. TEMP.                   |                                               |
| 8 3 100        |                    |                              |                                               |
| 9 4 75         |                    |                              |                                               |
| 10 5 50        |                    |                              |                                               |
| 11 6 40        |                    |                              |                                               |
| 17 7 30        |                    |                              |                                               |
| 20 8 20        |                    |                              |                                               |
| 21 9 10        |                    |                              |                                               |
| 22 10 0        |                    |                              |                                               |
| 23 11          |                    |                              |                                               |
| 24 12          |                    |                              |                                               |

| VESSEL         |            | PROJECT & LEG                |     | DSDB I.D.         |    | STATION DESIGNATION |    |            |      |          |       |           |       |           |     |         |   |              |    |              |   |   |
|----------------|------------|------------------------------|-----|-------------------|----|---------------------|----|------------|------|----------|-------|-----------|-------|-----------|-----|---------|---|--------------|----|--------------|---|---|
| R/V Kilo Moana |            | KMO3055                      |     | KMO309            |    |                     |    |            |      |          |       |           |       |           |     |         |   |              |    |              |   |   |
| CONSC CAST #   | 38.94      | 27.49                        |     | 2004              |    | DATE JD= 128        |    | TIME (GMT) |      | WET BULB |       | WIND DIRL |       | WIND SPD. |     | WEATHER |   | BOTTOM DEPTH |    | STA. NAME/ID |   |   |
| DEG            | MIN        | DEG                          | MIN | DAY               | MO | YR                  | HR | MIN        | (°C) | (°C)     | (deg) | (m/s)     | * * * | * * *     | (m) |         |   |              |    |              |   |   |
| 117            | 58         | 38                           | 7   | 1                 | N  | 14                  | 9  | 27         | 10   | W        | 08    | M         | A     | Y         | 0   | 3       | 2 | 0            | 16 | 8            | 6 | 2 |
| SBE 9+         |            |                              |     |                   |    |                     |    |            |      |          |       |           |       |           |     |         |   |              |    |              |   |   |
| PRESS SN       |            | DATA ON                      |     | TAPES/DISKETTE ID |    | FILE NAME/HEADER    |    | REMARKS    |      |          |       |           |       |           |     |         |   |              |    |              |   |   |
| PRI TEMP SN    |            | START DOWN                   |     |                   |    |                     |    |            |      |          |       |           |       |           |     |         |   |              |    |              |   |   |
| SEC TEMP SN    |            | AT DEPTH                     |     |                   |    |                     |    |            |      |          |       |           |       |           |     |         |   |              |    |              |   |   |
| PRI COND SN    |            | AT SURFACE                   |     |                   |    |                     |    |            |      |          |       |           |       |           |     |         |   |              |    |              |   |   |
| SEC COND SN    |            | PAR S/N                      |     | FLUOR S/N         |    |                     |    |            |      |          |       |           |       |           |     |         |   |              |    |              |   |   |
| TRIP DEPTH     |            | CTD CONVERTED MONITOR VALUES |     |                   |    |                     |    |            |      |          |       |           |       |           |     |         |   |              |    |              |   |   |
| POS.           | TRIP DEPTH | PRESSURE                     |     | PRI. TEMP.        |    | SEC. TEMP.          |    | SALINITY   |      | SALINITY |       | SALINITY  |       | SAL       |     | NUTR.   |   | CHL.         |    | WHIT'S NUTR. |   |   |
| 1              | 10.4m      | ✓                            |     |                   |    |                     |    |            |      |          |       |           |       |           |     | 5       |   |              |    |              |   |   |
| 2              | 120        | ✓                            |     |                   |    |                     |    |            |      |          |       |           |       |           |     | 6       |   |              |    |              |   |   |
| 3              | 100        | ✓                            |     |                   |    |                     |    |            |      |          |       |           |       |           |     | 8       |   |              |    |              |   |   |
| 4              | 80         | ✓                            |     |                   |    |                     |    |            |      |          |       |           |       |           |     | 9       |   |              |    |              |   |   |
| 5              | 60         | ✓                            |     |                   |    |                     |    |            |      |          |       |           |       |           |     | 10      |   |              |    |              |   |   |
| 6              | 50         | ✓                            |     |                   |    |                     |    |            |      |          |       |           |       |           |     | 11      |   |              |    |              |   |   |
| 7              | 30         | ✓                            |     |                   |    |                     |    |            |      |          |       |           |       |           |     | 17      |   |              |    |              |   |   |
| 8              | 20         | ✓                            |     |                   |    |                     |    |            |      |          |       |           |       |           |     | 20      |   |              |    |              |   |   |
| 9              | 10         | ✓                            |     |                   |    |                     |    |            |      |          |       |           |       |           |     | 21      |   |              |    |              |   |   |
| 10             | 0          | ✓                            |     |                   |    |                     |    |            |      |          |       |           |       |           |     | 22      |   |              |    |              |   |   |
| 11             |            |                              |     |                   |    |                     |    |            |      |          |       |           |       |           |     |         |   |              |    |              |   |   |
| 12             |            |                              |     |                   |    |                     |    |            |      |          |       |           |       |           |     |         |   |              |    |              |   |   |

5 6 8 9 10 11 17 20 21 22 23 24

[illegible]

| VESSEL<br>R/V Kilo Moana     |    | PROJECT & LEG<br>KMO305b |    | DSDB I.D. |   | STATION DESIGNATION |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|----|--------------------------|----|-----------|---|---------------------|----|------------|---|----------|---|----------|---|----------|---|-----------|----|------------|---|-----------|---|-------------|---|------|---|------------|---|--------------|---|--------------|---|------------|---|---|---|---|---|---|---|---|---|---|---|
| CONSC<br>CAST #              |    | 34.41                    |    | 25.86     |   | 2143                |    | TIME (GMT) |   | DRY BULB |   | WET BULB |   | PRESSURE |   | SEA STATE |    | WIND DIRN. |   | WIND SPD. |   | CLOUD (amt) |   | TYPE |   | WEATHER    |   | BOTTOM DEPTH |   | STA. NAME/ID |   |            |   |   |   |   |   |   |   |   |   |   |   |
| LATITUDE                     |    | MIN                      |    | DEG       |   | LONGITUDE           |    | MIN        |   | DEG      |   | DATE JD- |   | DAY      |   | MO        |    | YR         |   | HR        |   | MIN         |   | SEC  |   | WIND (m/s) |   | WIND (deg)   |   | WIND (deg)   |   | WIND (deg) |   |   |   |   |   |   |   |   |   |   |   |
| 1                            | 78 | 58                       | 34 | 25        | N | 149                 | 25 | 65         | W | 48       | M | 1        | 0 | 3        | 2 | 1         | 50 | 9          | 1 | 7         | 1 | 7           | 1 | 6    | 2 | 4          | 3 | 6            | 1 | 5            | 9 | 0          | 5 | 8 | 6 | 2 | 1 | 2 | 8 | A | T | D | 1 |
| SBE 9+                       |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| PRESS SN                     |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| PRI TEMP SN                  |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| SEC TEMP SN                  |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| PRI COND SN                  |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| SEC COND SN                  |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| DATA LOCATION                |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| Tape/Diskette ID             |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| File Name/Header             |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| REMARKS                      |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| Cleared air bleed valve      |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| MAX. DEPTH = m               |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| FLUOR S/N                    |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| PAR S/N                      |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| CTD CONVERTED MONITOR VALUES |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| SAMPLE BOTTLE DATA           |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| SAMPLE BOTTLE NUMBER         |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| SALINITY                     |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| SAL                          |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| NUTR.                        |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| CHL                          |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| WHT's NUTR.                  |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| SALINITY                     |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| SALINITY                     |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| SEC. TEMP                    |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| PRI. TEMP.                   |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| PRESSURE                     |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| PRESSURE                     |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| 1                            |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| 2                            |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| 3                            |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| 4                            |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| 5                            |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| 6                            |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| 7                            |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| 8                            |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| 9                            |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| 10                           |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| 11                           |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |
| 12                           |    |                          |    |           |   |                     |    |            |   |          |   |          |   |          |   |           |    |            |   |           |   |             |   |      |   |            |   |              |   |              |   |            |   |   |   |   |   |   |   |   |   |   |   |

[illegible]



[illegible]

| VESSEL          |  | PROJECT & LEG                |  | DSD8 I.D.          |  | STATION DESIGNATION  |  |
|-----------------|--|------------------------------|--|--------------------|--|----------------------|--|
| R/V Kilo Moana  |  | KM0305b                      |  |                    |  | ATD05                |  |
| CONSC CAST #    |  | 51.37                        |  | 32.43              |  | 0258                 |  |
| LATITUDE        |  | DEG MIN                      |  | LONGITUDE          |  | TIME (GMT)           |  |
| 1825851.37N     |  | 14932.43N                    |  | 0258               |  | 0258                 |  |
| SBE 9+          |  | DEG MIN                      |  | LONGITUDE          |  | TIME (GMT)           |  |
| 1825851.37N     |  | 14932.43N                    |  | 0258               |  | 0258                 |  |
| PRESS SN        |  | DATA ON                      |  | 0257               |  | 0258                 |  |
| PRI TEMP SN     |  | START DOWN                   |  | 0258               |  | 0258                 |  |
| SEC TEMP SN     |  | AT DEPTH                     |  |                    |  |                      |  |
| PRI COND SN     |  | AT SURFACE                   |  |                    |  |                      |  |
| SEC COND SN     |  | PAR S/N                      |  | FLUOR S/N          |  | MAX. DEPTH = m       |  |
| POS. TRIP DEPTH |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |
| 1 Bot           |  | PRESSURE                     |  | PRI. TEMP.         |  | SEC. TEMP.           |  |
| 2 200           |  | 5 -                          |  |                    |  |                      |  |
| 3 175           |  | 6 -                          |  |                    |  |                      |  |
| 4 150           |  | 8 -                          |  |                    |  |                      |  |
| 5 125           |  | 9 -                          |  |                    |  |                      |  |
| 6 100           |  | 10 -                         |  |                    |  |                      |  |
| 7 75            |  | 11 -                         |  |                    |  |                      |  |
| 8 50            |  | 17 -                         |  |                    |  |                      |  |
| 9 30            |  | 20 -                         |  |                    |  |                      |  |
| 10 20           |  | 24 -                         |  |                    |  |                      |  |
| 11 10           |  | 22 -                         |  |                    |  |                      |  |
| 12 0            |  | 23 -                         |  |                    |  |                      |  |
|                 |  | 24 -                         |  |                    |  |                      |  |
|                 |  | SALINITY                     |  | SALINITY           |  | SALINITY             |  |
|                 |  | 5                            |  | 6                  |  | 8                    |  |
|                 |  | 9                            |  | 10                 |  | 11                   |  |
|                 |  | 12                           |  | 13                 |  | 14                   |  |
|                 |  | 15                           |  | 16                 |  | 17                   |  |
|                 |  | 18                           |  | 19                 |  | 20                   |  |
|                 |  | 21                           |  | 22                 |  | 23                   |  |
|                 |  | 24                           |  | 25                 |  | 26                   |  |
|                 |  | 27                           |  | 28                 |  | 29                   |  |
|                 |  | 30                           |  | 31                 |  | 32                   |  |
|                 |  | 33                           |  | 34                 |  | 35                   |  |
|                 |  | 36                           |  | 37                 |  | 38                   |  |
|                 |  | 39                           |  | 40                 |  | 41                   |  |
|                 |  | 42                           |  | 43                 |  | 44                   |  |
|                 |  | 45                           |  | 46                 |  | 47                   |  |
|                 |  | 48                           |  | 49                 |  | 50                   |  |
|                 |  | 51                           |  | 52                 |  | 53                   |  |
|                 |  | 54                           |  | 55                 |  | 56                   |  |
|                 |  | 57                           |  | 58                 |  | 59                   |  |
|                 |  | 60                           |  | 61                 |  | 62                   |  |
|                 |  | 63                           |  | 64                 |  | 65                   |  |
|                 |  | 66                           |  | 67                 |  | 68                   |  |
|                 |  | 69                           |  | 70                 |  | 71                   |  |
|                 |  | 72                           |  | 73                 |  | 74                   |  |
|                 |  | 75                           |  | 76                 |  | 77                   |  |
|                 |  | 78                           |  | 79                 |  | 80                   |  |
|                 |  | 81                           |  | 82                 |  | 83                   |  |
|                 |  | 84                           |  | 85                 |  | 86                   |  |
|                 |  | 87                           |  | 88                 |  | 89                   |  |
|                 |  | 90                           |  | 91                 |  | 92                   |  |
|                 |  | 93                           |  | 94                 |  | 95                   |  |
|                 |  | 96                           |  | 97                 |  | 98                   |  |
|                 |  | 99                           |  | 100                |  | 101                  |  |
|                 |  | 102                          |  | 103                |  | 104                  |  |
|                 |  | 105                          |  | 106                |  | 107                  |  |
|                 |  | 108                          |  | 109                |  | 110                  |  |
|                 |  | 111                          |  | 112                |  | 113                  |  |
|                 |  | 114                          |  | 115                |  | 116                  |  |
|                 |  | 117                          |  | 118                |  | 119                  |  |
|                 |  | 120                          |  | 121                |  | 122                  |  |
|                 |  | 123                          |  | 124                |  | 125                  |  |
|                 |  | 126                          |  | 127                |  | 128                  |  |
|                 |  | 129                          |  | 130                |  | 131                  |  |
|                 |  | 132                          |  | 133                |  | 134                  |  |
|                 |  | 135                          |  | 136                |  | 137                  |  |
|                 |  | 138                          |  | 139                |  | 140                  |  |
|                 |  | 141                          |  | 142                |  | 143                  |  |
|                 |  | 144                          |  | 145                |  | 146                  |  |
|                 |  | 147                          |  | 148                |  | 149                  |  |
|                 |  | 150                          |  | 151                |  | 152                  |  |
|                 |  | 153                          |  | 154                |  | 155                  |  |
|                 |  | 156                          |  | 157                |  | 158                  |  |
|                 |  | 159                          |  | 160                |  | 161                  |  |
|                 |  | 162                          |  | 163                |  | 164                  |  |
|                 |  | 165                          |  | 166                |  | 167                  |  |
|                 |  | 168                          |  | 169                |  | 170                  |  |
|                 |  | 171                          |  | 172                |  | 173                  |  |
|                 |  | 174                          |  | 175                |  | 176                  |  |
|                 |  | 177                          |  | 178                |  | 179                  |  |
|                 |  | 180                          |  | 181                |  | 182                  |  |
|                 |  | 183                          |  | 184                |  | 185                  |  |
|                 |  | 186                          |  | 187                |  | 188                  |  |
|                 |  | 189                          |  | 190                |  | 191                  |  |
|                 |  | 192                          |  | 193                |  | 194                  |  |
|                 |  | 195                          |  | 196                |  | 197                  |  |
|                 |  | 198                          |  | 199                |  | 200                  |  |
|                 |  | 201                          |  | 202                |  | 203                  |  |
|                 |  | 204                          |  | 205                |  | 206                  |  |
|                 |  | 207                          |  | 208                |  | 209                  |  |
|                 |  | 210                          |  | 211                |  | 212                  |  |
|                 |  | 213                          |  | 214                |  | 215                  |  |
|                 |  | 216                          |  | 217                |  | 218                  |  |
|                 |  | 219                          |  | 220                |  | 221                  |  |
|                 |  | 222                          |  | 223                |  | 224                  |  |
|                 |  | 225                          |  | 226                |  | 227                  |  |
|                 |  | 228                          |  | 229                |  | 230                  |  |
|                 |  | 231                          |  | 232                |  | 233                  |  |
|                 |  | 234                          |  | 235                |  | 236                  |  |
|                 |  | 237                          |  | 238                |  | 239                  |  |
|                 |  | 240                          |  | 241                |  | 242                  |  |
|                 |  | 243                          |  | 244                |  | 245                  |  |
|                 |  | 246                          |  | 247                |  | 248                  |  |
|                 |  | 249                          |  | 250                |  | 251                  |  |
|                 |  | 252                          |  | 253                |  | 254                  |  |
|                 |  | 255                          |  | 256                |  | 257                  |  |
|                 |  | 258                          |  | 259                |  | 260                  |  |
|                 |  | 261                          |  | 262                |  | 263                  |  |
|                 |  | 264                          |  | 265                |  | 266                  |  |
|                 |  | 267                          |  | 268                |  | 269                  |  |
|                 |  | 270                          |  | 271                |  | 272                  |  |
|                 |  | 273                          |  | 274                |  | 275                  |  |
|                 |  | 276                          |  | 277                |  | 278                  |  |
|                 |  | 279                          |  | 280                |  | 281                  |  |
|                 |  | 282                          |  | 283                |  | 284                  |  |
|                 |  | 285                          |  | 286                |  | 287                  |  |
|                 |  | 288                          |  | 289                |  | 290                  |  |
|                 |  | 291                          |  | 292                |  | 293                  |  |
|                 |  | 294                          |  | 295                |  | 296                  |  |
|                 |  | 297                          |  | 298                |  | 299                  |  |
|                 |  | 300                          |  | 301                |  | 302                  |  |
|                 |  | 303                          |  | 304                |  | 305                  |  |
|                 |  | 306                          |  | 307                |  | 308                  |  |
|                 |  | 309                          |  | 310                |  | 311                  |  |
|                 |  | 312                          |  | 313                |  | 314                  |  |
|                 |  | 315                          |  | 316                |  | 317                  |  |
|                 |  | 318                          |  | 319                |  | 320                  |  |
|                 |  | 321                          |  | 322                |  | 323                  |  |
|                 |  | 324                          |  | 325                |  | 326                  |  |
|                 |  | 327                          |  | 328                |  | 329                  |  |
|                 |  | 330                          |  | 331                |  | 332                  |  |
|                 |  | 333                          |  | 334                |  | 335                  |  |
|                 |  | 336                          |  | 337                |  | 338                  |  |
|                 |  | 339                          |  | 340                |  | 341                  |  |
|                 |  | 342                          |  | 343                |  | 344                  |  |
|                 |  | 345                          |  | 346                |  | 347                  |  |
|                 |  | 348                          |  | 349                |  | 350                  |  |
|                 |  | 351                          |  | 352                |  | 353                  |  |
|                 |  | 354                          |  | 355                |  | 356                  |  |
|                 |  | 357                          |  | 358                |  | 359                  |  |
|                 |  | 360                          |  | 361                |  | 362                  |  |
|                 |  | 363                          |  | 364                |  | 365                  |  |
|                 |  | 366                          |  | 367                |  | 368                  |  |
|                 |  | 369                          |  | 370                |  | 371                  |  |
|                 |  | 372                          |  | 373                |  | 374                  |  |
|                 |  | 375                          |  | 376                |  | 377                  |  |
|                 |  | 378                          |  | 379                |  | 380                  |  |
|                 |  | 381                          |  | 382                |  | 383                  |  |
|                 |  | 384                          |  | 385                |  | 386                  |  |
|                 |  | 387                          |  | 388                |  | 389                  |  |
|                 |  | 390                          |  | 391                |  | 392                  |  |
|                 |  | 393                          |  | 394                |  | 395                  |  |
|                 |  | 396                          |  | 397                |  | 398                  |  |
|                 |  | 399                          |  | 400                |  | 401                  |  |
|                 |  | 402                          |  | 403                |  | 404                  |  |
|                 |  | 405                          |  | 406                |  | 407                  |  |
|                 |  | 408                          |  | 409                |  | 410                  |  |
|                 |  | 411                          |  | 412                |  | 413                  |  |
|                 |  | 414                          |  | 415                |  | 416                  |  |
|                 |  | 417                          |  | 418                |  | 419                  |  |
|                 |  | 420                          |  | 421                |  | 422                  |  |
|                 |  | 423                          |  | 424                |  | 425                  |  |
|                 |  | 426                          |  | 427                |  | 428                  |  |
|                 |  | 429                          |  | 430                |  | 431                  |  |
|                 |  | 432                          |  | 433                |  | 434                  |  |
|                 |  | 435                          |  | 436                |  | 437                  |  |
|                 |  | 438                          |  | 439                |  | 440                  |  |
|                 |  | 441                          |  | 442                |  | 443                  |  |
|                 |  | 444                          |  | 445                |  | 446                  |  |
|                 |  | 447                          |  | 448                |  | 449                  |  |
|                 |  | 450                          |  | 451                |  | 452                  |  |
|                 |  | 453                          |  | 454                |  | 455                  |  |
|                 |  | 456                          |  | 457                |  | 458                  |  |
|                 |  | 459                          |  | 460                |  | 461                  |  |
|                 |  | 462                          |  | 463                |  | 464                  |  |
|                 |  | 465                          |  | 466                |  | 467                  |  |
|                 |  | 468                          |  | 469                |  | 470                  |  |
|                 |  | 471                          |  | 472                |  | 473                  |  |
|                 |  | 474                          |  | 475                |  | 476                  |  |
|                 |  | 477                          |  | 478                |  | 479                  |  |
|                 |  | 480                          |  | 481                |  | 482                  |  |
|                 |  | 483                          |  | 484                |  | 485                  |  |
|                 |  | 486                          |  | 487                |  | 488                  |  |
|                 |  | 489                          |  | 490                |  | 491                  |  |
|                 |  | 492                          |  | 493                |  | 494                  |  |
|                 |  | 495                          |  | 496                |  | 497                  |  |
|                 |  | 498                          |  | 499                |  | 500                  |  |
|                 |  | 501                          |  | 502                |  | 503                  |  |
|                 |  | 504                          |  | 505                |  | 506                  |  |
|                 |  | 507                          |  | 508                |  | 509                  |  |
|                 |  | 510                          |  | 511                |  | 512                  |  |
|                 |  | 513                          |  | 514                |  | 515                  |  |
|                 |  | 516                          |  | 517                |  | 518                  |  |
|                 |  | 519                          |  | 520                |  | 521                  |  |
|                 |  | 522                          |  | 523                |  | 524                  |  |
|                 |  | 525                          |  | 526                |  | 527                  |  |
|                 |  | 528                          |  | 529                |  | 530                  |  |
|                 |  | 531                          |  | 532                |  | 533                  |  |
|                 |  | 534                          |  | 535                |  | 536                  |  |
|                 |  | 537                          |  | 538                |  | 539                  |  |
|                 |  | 540                          |  | 541                |  | 542                  |  |
|                 |  | 543                          |  | 544                |  | 545                  |  |
|                 |  | 546                          |  | 547                |  | 548                  |  |
|                 |  | 549                          |  | 550                |  | 551                  |  |
|                 |  | 552                          |  | 553                |  | 554                  |  |
|                 |  | 555                          |  | 556                |  | 557                  |  |
|                 |  | 558                          |  | 559                |  | 560                  |  |
|                 |  | 561                          |  | 562                |  | 563                  |  |
|                 |  | 564                          |  | 565                |  | 566                  |  |
|                 |  | 567                          |  | 568                |  | 569                  |  |
|                 |  | 570                          |  | 571                |  | 572                  |  |
|                 |  | 573                          |  | 574                |  | 575                  |  |
|                 |  | 576                          |  | 577                |  | 578                  |  |
|                 |  | 579                          |  | 580                |  | 581                  |  |
|                 |  | 582                          |  | 583                |  | 584                  |  |
|                 |  | 585                          |  | 586                |  | 587                  |  |
|                 |  | 588                          |  | 589                |  | 590                  |  |
|                 |  | 591                          |  | 592                |  | 593                  |  |
|                 |  | 594                          |  | 595                |  | 596                  |  |
|                 |  | 597                          |  | 598                |  | 599                  |  |
|                 |  | 600                          |  | 601                |  | 602                  |  |
|                 |  | 603                          |  | 604                |  | 605                  |  |
|                 |  | 606                          |  | 607                |  | 608                  |  |
|                 |  | 609                          |  | 610                |  | 611                  |  |
|                 |  | 612                          |  | 613                |  | 614                  |  |
|                 |  | 615                          |  | 616                |  | 617                  |  |
|                 |  | 618                          |  | 619                |  | 620                  |  |
|                 |  | 621                          |  | 622                |  | 623                  |  |
|                 |  | 624                          |  | 625                |  | 626                  |  |
|                 |  | 627                          |  | 628                |  | 629                  |  |
|                 |  | 630                          |  | 631                |  | 632                  |  |
|                 |  | 633                          |  | 634                |  | 635                  |  |
|                 |  | 636                          |  | 637                |  | 638                  |  |
|                 |  | 639                          |  | 640                |  | 641                  |  |
|                 |  | 642                          |  | 643                |  | 644                  |  |
|                 |  | 645                          |  | 646                |  | 647                  |  |
|                 |  | 648                          |  | 649                |  | 650                  |  |



[illegible]

[illegible]

[illegible]

|                          |        |                              |            |                     |          |                           |       |
|--------------------------|--------|------------------------------|------------|---------------------|----------|---------------------------|-------|
| VESSEL<br>R/V Kilo Moana |        | PROJECT & LEG<br>KM0305b     |            | DSDB I.D.<br>KM0309 |          | STATION DESIGNATION<br>28 |       |
| CONSC<br>CAST #          |        | LATITUDE                     |            | LONGITUDE           |          | DATE JD- 29               |       |
| DEG                      | MIN    | DEG                          | MIN        | DAY                 | MO       | YR                        |       |
| 18                       | 59     | 14                           | 39         | 08                  | W        | 09                        |       |
| SBE 9+                   |        | TIME                         |            | TIME (GMT)          |          | TIME (GMT)                |       |
| PRESS SN                 |        | DATA ON                      |            | Tape/Diskette ID    |          | File Name/Header          |       |
| PRI TEMP SN              |        | START DOWN                   |            |                     |          |                           |       |
| SEC TEMP SN              |        | AT DEPTH                     |            |                     |          |                           |       |
| PRI COND SN              |        | AT SURFACE                   |            |                     |          |                           |       |
| SEC COND SN              |        | PAR S/N                      |            | FLUOR S/N           |          | MAX. DEPTH = 121 m        |       |
| TRIP DEPTH               |        | CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA  |          | SAMPLE BOTTLE NUMBER      |       |
| POS.                     |        | PRESSURE                     | PRI. TEMP. | SEC. TEMP.          | SALINITY | SAL.                      | NUTR. |
| 5                        | Bottom |                              |            |                     |          |                           |       |
| 6                        | 100    |                              |            |                     |          |                           |       |
| 8                        | 75     |                              |            |                     |          |                           |       |
| 9                        | 50     |                              |            |                     |          |                           |       |
| 10                       | 40     |                              |            |                     |          |                           |       |
| 11                       | 30     |                              |            |                     |          |                           |       |
| 17                       | 20     |                              |            |                     |          |                           |       |
| 20                       | 10     |                              |            |                     |          |                           |       |
| 21                       | 0      |                              |            |                     |          |                           |       |
| 22                       |        |                              |            |                     |          |                           |       |
| 23                       |        |                              |            |                     |          |                           |       |
| 24                       |        |                              |            |                     |          |                           |       |

software glitch - window shut down while triggering bottle 9 (50m)  
 restarted software - trace is in file ctd187.dat and ctd187b.dat.  
 bottles 9-21 fired w/ ctd187b.dat.

|                          |         |                          |       |                              |       |                                            |    |
|--------------------------|---------|--------------------------|-------|------------------------------|-------|--------------------------------------------|----|
| VESSEL<br>R/V Kilo Moana |         | PROJECT & LEG<br>KM0305b |       | DSD8 I.D.                    |       | STATION DESIGNATION<br><i>22</i>           |    |
| CONSC<br>CAST #          |         | LATITUDE                 |       | LONGITUDE                    |       | DATE JD= 129                               |    |
| 188                      | 5909.81 | DEG                      | MIN   | DEG                          | MIN   | DAY                                        | MO |
| 188                      | 5909.81 | N                        | 38.35 | 149                          | 38.35 | W                                          | 09 |
| SBE 9+                   |         | TIME                     |       | JD/TIME                      |       | TIME (GMT)                                 |    |
| PRESS SN                 |         | DATA ON                  |       | START DOWN                   |       | DRY BULB (°C)                              |    |
| PRI TEMP SN              |         | AT DEPTH                 |       | AT SURFACE                   |       | WET BULB (°C)                              |    |
| PRI COND SN              |         | AT SURFACE               |       | AT SURFACE                   |       | PRESSURE (mb)                              |    |
| SEC COND SN              |         | PAR S/N                  |       | FLUOR S/N                    |       | SEA STATE                                  |    |
| POS.                     |         | TRIP DEPTH               |       | CTD CONVERTED MONITOR VALUES |       | WIND DIRL. (deg)                           |    |
| 5                        |         | Bottom                   |       | PRESSURE                     |       | WIND SPD. (m/s)                            |    |
| 6                        |         | 150                      |       | PRI. TEMP.                   |       | WIND TYPE                                  |    |
| 7                        |         | 125                      |       | SEC. TEMP.                   |       | WIND (amt)                                 |    |
| 8                        |         | 100                      |       | PRI. TEMP.                   |       | WEATHER                                    |    |
| 9                        |         | 75                       |       | SEC. TEMP.                   |       | STATION NAME/ID                            |    |
| 10                       |         | 50                       |       | PRI. TEMP.                   |       | BOTTOM DEPTH (m)                           |    |
| 11                       |         | 40                       |       | SEC. TEMP.                   |       | MAX. DEPTH = 170 m                         |    |
| 12                       |         | 30                       |       | PRI. TEMP.                   |       | CLEANED AIR BLEED VALVE                    |    |
| 13                       |         | 20                       |       | SEC. TEMP.                   |       | REMARKS<br><i>Arrived living sequence.</i> |    |
| 14                       |         | 10                       |       | PRI. TEMP.                   |       | FILE NAME/HEADER                           |    |
| 15                       |         | 0                        |       | SEC. TEMP.                   |       | Tape/Diskette ID                           |    |
| 16                       |         |                          |       | PRI. TEMP.                   |       | FILE NAME/HEADER                           |    |
| 17                       |         |                          |       | SEC. TEMP.                   |       | FILE NAME/HEADER                           |    |
| 18                       |         |                          |       | PRI. TEMP.                   |       | FILE NAME/HEADER                           |    |
| 19                       |         |                          |       | SEC. TEMP.                   |       | FILE NAME/HEADER                           |    |
| 20                       |         |                          |       | PRI. TEMP.                   |       | FILE NAME/HEADER                           |    |
| 21                       |         |                          |       | SEC. TEMP.                   |       | FILE NAME/HEADER                           |    |
| 22                       |         |                          |       | PRI. TEMP.                   |       | FILE NAME/HEADER                           |    |
| 23                       |         |                          |       | SEC. TEMP.                   |       | FILE NAME/HEADER                           |    |
| 24                       |         |                          |       | PRI. TEMP.                   |       | FILE NAME/HEADER                           |    |

| VESSEL         |            | PROJECT & LEG                |            | DSDB I.D.          |          | STATION DESIGNATION  |              |
|----------------|------------|------------------------------|------------|--------------------|----------|----------------------|--------------|
| R/V Kilo Moana |            | KM0309                       |            | KM0309             |          | ATD8                 |              |
| CONSC CAST #   | LATITUDE   | LONGITUDE                    | DATE       | TIME (GMT)         | WET BULB | WIND DIRN.           | WIND SPD.    |
| 189            | 59°06'N    | 149°37'W                     | 12 MAY 03  | 122307             | 20.8     | 115                  | 21           |
| SBE 9+         | DEG        | MIN                          | DAY        | HR                 | (°C)     | (deg)                | (m/s)        |
| PRESS SN       | 149        | 37                           | 12         | 23                 | 20.8     | 115                  | 21           |
| PRI TEMP SN    | DEG        | MIN                          | DAY        | HR                 | (°C)     | (deg)                | (m/s)        |
| SEC TEMP SN    | 149        | 37                           | 12         | 23                 | 20.8     | 115                  | 21           |
| PRI COND SN    | DEG        | MIN                          | DAY        | HR                 | (°C)     | (deg)                | (m/s)        |
| SEC COND SN    | 149        | 37                           | 12         | 23                 | 20.8     | 115                  | 21           |
| POS.           | TRIP DEPTH | CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA |          | SAMPLE BOTTLE NUMBER |              |
| 5              | Bottom     | PRESSURE                     | PRI. TEMP. | SEC. TEMP.         | SALINITY | SAL.                 | WHIT'S NUTR. |
| 6              | 175        |                              |            |                    |          | 90                   |              |
| 7              | 150        |                              |            |                    |          | 91                   |              |
| 8              | 125        |                              |            |                    |          | 92                   |              |
| 9              | 100        |                              |            |                    |          | 93                   |              |
| 10             | 75         |                              |            |                    |          | 94                   |              |
| 11             | 50         |                              |            |                    |          | 95                   |              |
| 12             | 40         |                              |            |                    |          | 96                   |              |
| 13             | 30         |                              |            |                    |          | 97                   |              |
| 14             | 20         |                              |            |                    |          | 98                   |              |
| 15             | 10         |                              |            |                    |          | 99 F                 |              |
| 16             | 0          |                              |            |                    |          | 100 F                |              |
| 17             |            |                              |            |                    |          | 101 F                |              |
| 18             |            |                              |            |                    |          |                      |              |
| 19             |            |                              |            |                    |          |                      |              |
| 20             |            |                              |            |                    |          |                      |              |
| 21             |            |                              |            |                    |          |                      |              |
| 22             |            |                              |            |                    |          |                      |              |
| 23             |            |                              |            |                    |          |                      |              |
| 24             |            |                              |            |                    |          |                      |              |

Cleaned air bleed valve  
MAX. DEPTH = 205 m

DATA LOCATION  
File Name/Header

Tape/Diskette ID

FLUOR S/N

PAR S/N

| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KMS0309     |  | DSOB I.D.          |  | STATION DESIGNATION |  |
|--------------------------|--|------------------------------|--|--------------------|--|---------------------|--|
| CONSC CAST #             |  | DATE JD-129                  |  | TIME (GMT)         |  | WET BULB            |  |
| LATITUDE                 |  | LONGITUDE                    |  | SEA STATE          |  | WIND DIRN.          |  |
| DEG MIN                  |  | DEG MIN                      |  | PRESSURE           |  | WIND SPD.           |  |
| 1905902.04 N             |  | 14935.88 W                   |  | 71546              |  | 18                  |  |
| SBE 9+                   |  | JD/TIME                      |  | Tape/Diskette ID   |  | CLOUD (amt)         |  |
| PRESS SN                 |  | TIMES                        |  | DATA LOCATION      |  | WEATHER             |  |
| PRI TEMP SN              |  | DATA ON                      |  | File Name/Header   |  | * * *               |  |
| SEC TEMP SN              |  | START DOWN                   |  |                    |  | * * *               |  |
| PRI COND SN              |  | AT DEPTH                     |  |                    |  | * * *               |  |
| SEC COND SN              |  | AT SURFACE                   |  |                    |  | * * *               |  |
| PAR S/N                  |  | FLUOR S/N                    |  | Tape/Diskette ID   |  | * * *               |  |
| POS. TRIP DEPTH          |  | CTD CONVERTED MONITOR VALUES |  | Tape/Diskette ID   |  | * * *               |  |
| 5 1 Bottom               |  | PRESSURE                     |  | SEC. TEMP          |  | SALINITY            |  |
| 6 2 200                  |  | PRI. TEMP.                   |  |                    |  | SAL.                |  |
| 7 3 175                  |  |                              |  |                    |  | NUTR.               |  |
| 8 4 150                  |  |                              |  |                    |  | CHL.                |  |
| 9 5 125                  |  |                              |  |                    |  | WHIT'S NUTR.        |  |
| 10 6 100                 |  |                              |  |                    |  |                     |  |
| 11 7 75                  |  |                              |  |                    |  |                     |  |
| 12 8 50                  |  |                              |  |                    |  |                     |  |
| 13 9 30                  |  |                              |  |                    |  |                     |  |
| 14 10 20                 |  |                              |  |                    |  |                     |  |
| 15 11 10                 |  |                              |  |                    |  |                     |  |
| 16 12 0                  |  |                              |  |                    |  |                     |  |
| REMARKS                  |  | CLEANED AIR BLEED VALVE      |  | MAX. DEPTH - 224 m |  |                     |  |

|                          |  |                              |  |                    |  |                                                        |  |
|--------------------------|--|------------------------------|--|--------------------|--|--------------------------------------------------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0309      |  | DSDB I.D.          |  | STATION DESIGNATION<br>LB                              |  |
| CONSC<br>CAST #          |  | LATITUDE                     |  | LONGITUDE          |  | DATE JD- 129                                           |  |
| DEG MIN                  |  | DEG MIN                      |  | DAY MO YR          |  | TIME (GMT)                                             |  |
| 19 15 05 06              |  | 14 9 34                      |  | 16 W 09 M A Y 03   |  | 14 47 07                                               |  |
| SBE 9+                   |  | TIMES                        |  | JD/TIME            |  | DATA LOCATION                                          |  |
| PRESS SN                 |  | DATA ON                      |  | Tape/Diskette ID   |  | File Name/Header                                       |  |
| PRI TEMP SN              |  | START DOWN                   |  |                    |  |                                                        |  |
| SEC TEMP SN              |  | AT DEPTH                     |  |                    |  |                                                        |  |
| PRI COND SN              |  | AT SURFACE                   |  |                    |  |                                                        |  |
| SEC COND SN              |  | PAR S/N                      |  | FLUOR S/N          |  | MAX. DEPTH - 239 m                                     |  |
| POS. TRIP DEPTH          |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER                                   |  |
| 1 Bottom                 |  | PRESSURE                     |  | PRI. TEMP.         |  | SEC. TEMP.                                             |  |
| 2 200                    |  |                              |  |                    |  | SALINITY                                               |  |
| 3 175                    |  |                              |  |                    |  | SAL. NUTR. CHL. WHIT'S NUTR.                           |  |
| 4 150                    |  |                              |  |                    |  | 222 114 115 116 117 118 119 120 121 122 123F 124F 125F |  |
| 5 125                    |  |                              |  |                    |  |                                                        |  |
| 6 100                    |  |                              |  |                    |  |                                                        |  |
| 7 75                     |  |                              |  |                    |  |                                                        |  |
| 8 50                     |  |                              |  |                    |  |                                                        |  |
| 9 20                     |  |                              |  |                    |  |                                                        |  |
| 10 20                    |  |                              |  |                    |  |                                                        |  |
| 11 10                    |  |                              |  |                    |  |                                                        |  |
| 12 0                     |  |                              |  |                    |  |                                                        |  |

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|                          |        |                              |  |                    |  |                      |  |
|--------------------------|--------|------------------------------|--|--------------------|--|----------------------|--|
| VESSEL<br>R/V Kilo Moana |        | PROJECT & LEG<br>KM0309      |  | DSDB I.D.          |  | STATION DESIGNATION  |  |
| CONSC<br>CAST #          |        | DATE JD- 129                 |  | TIME (GMT)         |  | WIND DIRN.           |  |
| LATITUDE                 |        | LONGITUDE                    |  | WET BULB           |  | WIND SPD.            |  |
| DEG MIN                  |        | DEG MIN                      |  | (°C)               |  | (m/s)                |  |
| 19 25 05 1.24            |        | 14 93 1.99                   |  | 306.8              |  | 1526                 |  |
| SBE 9+                   |        | JD/TIME                      |  | Tape/Diskette ID   |  | REMARKS              |  |
| PRESS SN                 |        | DATA ON                      |  | File Name/Header   |  |                      |  |
| PRI TEMP SN              |        | START DOWN                   |  |                    |  |                      |  |
| SEC TEMP SN              |        | AT DEPTH                     |  |                    |  |                      |  |
| PRI COND SN              |        | AT SURFACE                   |  |                    |  |                      |  |
| SEC COND SN              |        | PAR S/N                      |  | FLUOR S/N          |  | MAX. DEPTH - 225 m   |  |
| POS. TRIP DEPTH          |        | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |
|                          |        | PRESSURE                     |  | PRI. TEMP.         |  | SALINITY             |  |
|                          |        | SEC. TEMP.                   |  | SAL.               |  | NUTR.                |  |
|                          |        | CHL.                         |  | WHIT'S NUTR.       |  |                      |  |
| 5                        | Bottom |                              |  |                    |  |                      |  |
| 6                        | 200    |                              |  |                    |  | 126                  |  |
| 7                        | 175    |                              |  |                    |  | 127                  |  |
| 8                        | 150    |                              |  |                    |  | 128                  |  |
| 9                        | 125    |                              |  |                    |  | 129                  |  |
| 10                       | 100    |                              |  |                    |  | 130                  |  |
| 11                       | 75     |                              |  |                    |  | 131                  |  |
| 12                       | 50     |                              |  |                    |  | 132                  |  |
| 13                       | 30     |                              |  |                    |  | 133                  |  |
| 14                       | 20     |                              |  |                    |  | 134F                 |  |
| 15                       | 10     |                              |  |                    |  | 135F                 |  |
| 16                       | 0      |                              |  |                    |  | 136F                 |  |
| 17                       |        |                              |  |                    |  | 137F                 |  |

5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KMO309 |  | DSD8 ID.  |  | STATION DESIGNATION          |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
|--------------------------|--|-------------------------|--|-----------|--|------------------------------|--|------------------|--|------------------|--|-----------|--|----------|--|-----------|--|------------|--|-----------|--|-------------|--|---------|--|--------------|--|--------------|--|
| CONSC<br>CAST #          |  | LATITUDE                |  | LONGITUDE |  | DATE JD= 129                 |  | TIME (GMT)       |  | DRY BULB         |  | WET BULB  |  | PRESSURE |  | SEA STATE |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| DEG MIN                  |  | DEG MIN                 |  | DEG MIN   |  | DAY MO YR                    |  | HR MIN           |  | °C               |  | °C        |  | (mb)     |  | *         |  | (deg)      |  | (m/s)     |  | *           |  | * *     |  | (m)          |  |              |  |
| 1935846.08 N             |  | 14929.70 W              |  | 09 MAY 03 |  | 172507.00                    |  | 120258860196     |  | 21246120         |  | 258860196 |  | ATD4     |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SBE 9+                   |  | TIMES                   |  | JD/TIME   |  | DATA LOCATION                |  | Tape/Diskette ID |  | File Name/Header |  | REMARKS   |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRESS SN                 |  | DATA ON                 |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI TEMP SN              |  | START DOWN              |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC TEMP SN              |  | AT DEPTH                |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI COND SN              |  | AT SURFACE              |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC COND SN              |  |                         |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| POS. TRIP DEPTH          |  | PAR S/N                 |  | FLUOR S/N |  | CTD CONVERTED MONITOR VALUES |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 1 Bottom                 |  |                         |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 2 175                    |  |                         |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 3 150                    |  |                         |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 4 125                    |  |                         |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 5 100                    |  |                         |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 6 75                     |  |                         |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 7 50                     |  |                         |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 8 40                     |  |                         |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 9 30                     |  |                         |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 10 20                    |  |                         |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 11 10                    |  |                         |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 12 0                     |  |                         |  |           |  |                              |  |                  |  |                  |  |           |  |          |  |           |  |            |  |           |  |             |  |         |  |              |  |              |  |

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|--------------------------|--|------------------------------|--|------------|--|---------------|--|-------------------------------------|--|------------------|--|----------|--|----------|--|-----------|--|-----------------|--|-----------|--|-------------|--|---------|--|---------------------|--|--------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0303      |  |            |  | DSD8 I.D.     |  | STATION DESIGNATION<br><i>28860</i> |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| CONSC<br>CAST #          |  | LATITUDE                     |  | LONGITUDE  |  | DATE          |  | TIME (GMT)                          |  | DRY BULB         |  | WET BULB |  | PRESSURE |  | SEA STATE |  | WIND DIRN       |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER |  | BOTTOM<br>DEPTH (m) |  | STA. NAME/ID |  |
| 1945842.41N              |  | 14927.49W                    |  | 09         |  | MAY 03        |  | 184506.30                           |  | 5.5              |  | 11.4     |  | 6.1      |  | 24        |  | 28860           |  | 160       |  | ATD3        |  |         |  |                     |  |              |  |
| SBE 9+                   |  | TIMES                        |  | JD/TIME    |  | DATA LOCATION |  | Tape/Diskette ID                    |  | File Name/Header |  | REMARKS  |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| PRESS SN                 |  | DATA ON                      |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| PRI TEMP SN              |  | START DOWN                   |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| SEC TEMP SN              |  | AT DEPTH                     |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| PRI COND SN              |  | AT SURFACE                   |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| SEC COND SN              |  | PAR S/N                      |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| POS.   TRIP DEPTH        |  | FLUOR S/N                    |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
|                          |  | CTD CONVERTED MONITOR VALUES |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
|                          |  | PRESSURE                     |  | PRI. TEMP. |  | SEC. TEMP.    |  | SALINITY                            |  | SALINITY         |  | SAL.     |  | NUTR.    |  | CHL.      |  | WHIT'S<br>NUTR. |  |           |  |             |  |         |  |                     |  |              |  |
| 5 1 Bottom               |  |                              |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| 6 2 125                  |  |                              |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| 7 3 100                  |  |                              |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| 9 4 75                   |  |                              |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| 10 5 50                  |  |                              |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| 11 6 40                  |  |                              |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| 17 7 30                  |  |                              |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| 20 8 20                  |  |                              |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| 21 9 10                  |  |                              |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| 22 10 0                  |  |                              |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| 23 11                    |  |                              |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |
| 24 12                    |  |                              |  |            |  |               |  |                                     |  |                  |  |          |  |          |  |           |  |                 |  |           |  |             |  |         |  |                     |  |              |  |

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First post-storm cast

|                          |  |                              |  |               |  |                     |  |
|--------------------------|--|------------------------------|--|---------------|--|---------------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0309      |  | DSD8 ID.      |  | STATION DESIGNATION |  |
| CONSC CAST #             |  | LATITUDE                     |  | LONGITUDE     |  | DATE                |  |
| 1955045.42               |  | N 15 00 09.56                |  | W 10 11 19 03 |  | 14 MAY 2003         |  |
| SBE 9+                   |  | DEG MIN                      |  | DEG MIN       |  | TIME (GMT)          |  |
| PRESS SN                 |  | DATA ON                      |  | START DOWN    |  | Tape/Diskette ID    |  |
| PRI TEMP SN              |  | AT DEPTH                     |  | AT SURFACE    |  | File Name/Header    |  |
| SEC TEMP SN              |  | PAR S/N                      |  | FLUOR S/N     |  | DATA LOCATION       |  |
| PRI COND SN              |  | CTD CONVERTED MONITOR VALUES |  | SALINITY      |  | SALINITY            |  |
| SEC COND SN              |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |
| TRIP DEPTH               |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |
| 5 1 Bottom               |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |
| 6 2 125                  |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |
| 7 3 100                  |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |
| 8 4 75                   |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |
| 9 5 50                   |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |
| 10 6 40                  |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |
| 11 7 30                  |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |
| 12 8 20                  |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |
| 13 9 10                  |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |
| 14 10 0                  |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |
| 15 11                    |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |
| 16 12                    |  | PRESSURE                     |  | PRI. TEMP.    |  | SEC. TEMP.          |  |

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|--------------------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|-------------------------------------------|--|--|--|--|--|--|--|--|--|------------|--|--|--|--|--|--|--|--|--|-----------|--|--|--|--|--|--|--|--|--|-------------|--|--|--|--|--|--|--|--|--|---------|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| VESSEL<br>R/V Kilo Moana |  |  |  |  |  |  |  |  |  | PROJECT & LEG<br>KM0305b     |  |  |  |  |  |  |  |  |  | DSD8 I.D.<br>KM0309 |  |  |  |  |  |  |  |  |  | STATION DESIGNATION<br><i>[Signature]</i> |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CONSC CAST #             |  |  |  |  |  |  |  |  |  | DATE JD- 130                 |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  | WET BULB                                  |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | CLOUD (amt) |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  | STA. NAME/ID |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1905050.59 N             |  |  |  |  |  |  |  |  |  | 15008.53 W                   |  |  |  |  |  |  |  |  |  | 181906.905.2        |  |  |  |  |  |  |  |  |  | 104621020                                 |  |  |  |  |  |  |  |  |  | 8820165    |  |  |  |  |  |  |  |  |  | ATE4      |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SBE 9+                   |  |  |  |  |  |  |  |  |  | LONGITUDE                    |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  | WET BULB                                  |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | CLOUD (amt) |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  | STA. NAME/ID |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PRESS SN                 |  |  |  |  |  |  |  |  |  | DATA ON                      |  |  |  |  |  |  |  |  |  | Tape/Diskette ID    |  |  |  |  |  |  |  |  |  | WET BULB                                  |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | CLOUD (amt) |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  | STA. NAME/ID |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN              |  |  |  |  |  |  |  |  |  | START DOWN                   |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | WET BULB                                  |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | CLOUD (amt) |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  | STA. NAME/ID |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN              |  |  |  |  |  |  |  |  |  | AT DEPTH                     |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | WET BULB                                  |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | CLOUD (amt) |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  | STA. NAME/ID |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PRI COND SN              |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | WET BULB                                  |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | CLOUD (amt) |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  | STA. NAME/ID |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SEC COND SN              |  |  |  |  |  |  |  |  |  | PAR S/N                      |  |  |  |  |  |  |  |  |  | FLUOR S/N           |  |  |  |  |  |  |  |  |  | WET BULB                                  |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | CLOUD (amt) |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  | STA. NAME/ID |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| POS. TRIP DEPTH          |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | DATA LOCATION       |  |  |  |  |  |  |  |  |  | WET BULB                                  |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | CLOUD (amt) |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  | STA. NAME/ID |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 1 Bottom               |  |  |  |  |  |  |  |  |  | PRESSURE                     |  |  |  |  |  |  |  |  |  | PRI. TEMP.          |  |  |  |  |  |  |  |  |  | SEC. TEMP.                                |  |  |  |  |  |  |  |  |  | SALINITY   |  |  |  |  |  |  |  |  |  | SALINITY  |  |  |  |  |  |  |  |  |  | SAL.        |  |  |  |  |  |  |  |  |  | NUTR.   |  |  |  |  |  |  |  |  |  | CHL.         |  |  |  |  |  |  |  |  |  | WHT'S NUTR.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 2 125                  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |                                           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 3 100                  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |                                           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 4 75                   |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |                                           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 5 50                   |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |                                           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 6 40                  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |                                           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 7 30                  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |                                           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 8 20                  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |                                           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 9 10                  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |                                           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 10 0                  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |                                           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 11                    |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |                                           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 12                    |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |                                           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

☐ Cleaned air bleed valve

MAX. DEPTH = 164 m

205

| VESSEL<br>R/V Kilo Moana |     | PROJECT & LEG<br>KMB055b |     | DSDB I.D.<br>KM0309 |     | STATION DESIGNATION |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
|--------------------------|-----|--------------------------|-----|---------------------|-----|---------------------|----|------|------|----------|------|-------------------|------|------------------|---|-----------|-------|------------|---|-----------|---|-------------|---|---------|--|--------------|--|--------------|--|
| CONSC<br>CAST #          |     | LATITUDE                 |     | LONGITUDE           |     | DATE                |    | TIME |      | DRY BULB |      | WET BULB          |      | PRESSURE         |   | SEA STATE |       | WIND DIRN. |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| DEG                      | MIN | DEG                      | MIN | DAY                 | MO  | YR                  | HR | MIN  | (°C) | (°C)     | (mb) | (°C)              | (mb) | *                | * | (deg)     | (m/s) | *          | * | *         | * | *           | * | (m)     |  |              |  |              |  |
| 56.50                    | 34  | 06                       | 06  | 10                  | MAY | 2003                | 21 | 06   | 3.8  | 5.3      | 10.5 | 6                 | 2    | 1                | 1 | 1         | 1     | 1          | 1 | 1         | 1 | 1           | 1 | 288     |  |              |  |              |  |
| SBE 9+                   |     | 11975856                 |     | 15006               |     | 71                  |    | W    |      | JD/TIME  |      | TAPES/DISKETTE ID |      | FILE NAME/HEADER |   | REMARKS   |       |            |   |           |   |             |   |         |  |              |  |              |  |
| PRESS SN                 |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
| PRI TEMP SN              |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
| SEC TEMP SN              |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
| PRI COND SN              |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
| SEC COND SN              |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
| TRIP DEPTH               |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
| POS.                     |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
| PRESSURE                 |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
| PRI TEMP.                |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
| SEC TEMP.                |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
| SALINITY                 |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
| SAL.                     |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
| CHL.                     |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |
| WHIT'S NUTR.             |     |                          |     |                     |     |                     |    |      |      |          |      |                   |      |                  |   |           |       |            |   |           |   |             |   |         |  |              |  |              |  |

5 1 Bottom 5-  
6 2 175 6-  
7 3 150 7-  
8 4 125 9-  
9 5 100 10-  
10 6 75 11-  
11 7 50 12-  
12 8 30 20-  
13 9 20 21-  
14 10 10 22-  
15 11 0 23-  
16 12

195

| VESSEL<br>R/V Kilo Moana |  |  |  |  |  |  |  |  |  | PROJECT & LEG<br>KM0305B     |  |  |  |  |  |  |  |  |  | STATION DESIGNATION |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |
|--------------------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|----------|--|--|--|--|--|--|--|--|--|
| CONSC CAST #             |  |  |  |  |  |  |  |  |  | DATE ID=                     |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |
| LATITUDE                 |  |  |  |  |  |  |  |  |  | LONGITUDE                    |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |
| DEG MIN                  |  |  |  |  |  |  |  |  |  | DEG MIN                      |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |
| 19 18 59 01 06 06 N      |  |  |  |  |  |  |  |  |  | 15 45 32 W                   |  |  |  |  |  |  |  |  |  | 22 24               |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |
| SBE 9+                   |  |  |  |  |  |  |  |  |  | DATA ON                      |  |  |  |  |  |  |  |  |  | Tape/Diskette ID    |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |
| PRESS SN                 |  |  |  |  |  |  |  |  |  | START DOWN                   |  |  |  |  |  |  |  |  |  | File Name/Header    |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN              |  |  |  |  |  |  |  |  |  | AT DEPTH                     |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN              |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |
| PRI COND SN              |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |
| SEC COND SN              |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |
| POS. TRIP DEPTH          |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | SAMPLE BOTTLE DATA  |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |
| PRESSURE                 |  |  |  |  |  |  |  |  |  | PRI. TEMP.                   |  |  |  |  |  |  |  |  |  | SEC. TEMP.          |  |  |  |  |  |  |  |  |  | SALINITY |  |  |  |  |  |  |  |  |  |
| 1 6-10m 5'               |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | 5        |  |  |  |  |  |  |  |  |  |
| 2 175 6'                 |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | 6        |  |  |  |  |  |  |  |  |  |
| 3 150 7'                 |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | 7        |  |  |  |  |  |  |  |  |  |
| 4 125 9'                 |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | 9        |  |  |  |  |  |  |  |  |  |
| 5 100 10'                |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | 10       |  |  |  |  |  |  |  |  |  |
| 6 75 11'                 |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | 11       |  |  |  |  |  |  |  |  |  |
| 7 50 12'                 |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | 12       |  |  |  |  |  |  |  |  |  |
| 8 30 20'                 |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | 13       |  |  |  |  |  |  |  |  |  |
| 9 20 21'                 |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | 14       |  |  |  |  |  |  |  |  |  |
| 10 10 22'                |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | 15       |  |  |  |  |  |  |  |  |  |
| 11 0 23'                 |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | 16       |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  | 17       |  |  |  |  |  |  |  |  |  |

| VESSEL         |            | PROJECT & LEG                |            | DSDB ID.   |          | STATION DESIGNATION |                      |
|----------------|------------|------------------------------|------------|------------|----------|---------------------|----------------------|
| R/V Kilo Moana |            | KM0305b                      |            |            |          |                     |                      |
| CONSC CAST #   | 0743       | 43.82                        |            | 0424       |          | 146                 |                      |
| LATITUDE       | MIN        | DEG                          | LONGITUDE  | MIN        | DEG      | BOTTOM DEPTH        |                      |
| 1995947.32N    | 154        | 44.04W                       | 111        | 039        | 039      | (m)                 |                      |
| SBE 9+         | JD/TIME    |                              | DATE       |            | TIME     |                     | WIND SPD.            |
| PRESS SN       | DATA ON    |                              | MO         |            | HR       |                     | (m/s)                |
| PRI TEMP SN    | START DOWN |                              | YR         |            | MIN      |                     | (deg)                |
| SEC TEMP SN    | AT DEPTH   |                              | 03         |            | 00       |                     | (deg)                |
| PRI COND SN    | AT SURFACE |                              | MAY        |            | 00       |                     | (deg)                |
| SEC COND SN    | PAR S/N    |                              | 03         |            | 00       |                     | (deg)                |
| POS.           | TRIP DEPTH | CTD CONVERTED MONITOR VALUES |            | FLUOR S/N  |          | MAX. DEPTH - m      |                      |
| 1              | bottom     | PRESSURE                     | PRI. TEMP. | SEC. TEMP. | SALINITY | SALINITY            | SAMPLE BOTTLE DATA   |
| 2              | 125        | 52                           |            |            |          | 5                   | SAMPLE BOTTLE NUMBER |
| 3              | 100        | 62                           |            |            |          | 6                   |                      |
| 4              | 75         | 71                           |            |            |          | 7                   |                      |
| 5              | 50         | 92                           |            |            |          | 9                   |                      |
| 6              | 40         | 142                          |            |            |          | 10                  |                      |
| 7              | 30         | 112                          |            |            |          | 11                  |                      |
| 8              | 20         | 172                          |            |            |          | 13                  |                      |
| 9              | 10         | 202                          |            |            |          | 20                  |                      |
| 10             | 0          | 212                          |            |            |          | 21                  |                      |
| 11             |            | 22                           |            |            |          | 22                  |                      |
| 12             |            |                              |            |            |          |                     |                      |

| VESSEL         |            | PROJECT & LEG                |                                     | DSDB I.D.  |                  | STATION DESIGNATION |     |
|----------------|------------|------------------------------|-------------------------------------|------------|------------------|---------------------|-----|
| R/V Kilo Moana |            | KM0305b                      |                                     |            |                  | KCW01               |     |
| CONSC CAST #   | LATITUDE   |                              | LONGITUDE                           |            | DATE JD=         |                     |     |
|                | DEG        | MIN                          | DEG                                 | MIN        | DAY              | MO                  | YR  |
| 244            | 59         | 09                           | 14                                  | 51         | 92               | W                   | 10  |
|                |            |                              |                                     |            |                  |                     |     |
| SBE 9+         | TIME       |                              | TIME (GMT)                          |            | WET BULB         |                     |     |
|                | DEG        | MIN                          | HR                                  | MIN        |                  | (°C)                |     |
|                | 59         | 09                           | 14                                  | 51         | 02               | 01                  | 7.8 |
|                |            |                              |                                     |            |                  |                     |     |
| PRESS SN       | DATA ON    |                              | Tape/Diskette ID                    |            | DATA LOCATION    |                     |     |
|                |            |                              |                                     |            | File Name/Header |                     |     |
| PRI TEMP SN    | START DOWN |                              |                                     |            |                  |                     |     |
|                |            |                              |                                     |            |                  |                     |     |
| SEC TEMP SN    | AT DEPTH   |                              |                                     |            |                  |                     |     |
|                |            |                              |                                     |            |                  |                     |     |
| PRI COND SN    | AT SURFACE |                              |                                     |            |                  |                     |     |
|                |            |                              |                                     |            |                  |                     |     |
| SEC COND SN    | PAR S/N    |                              | FLUOR S/N                           |            | MAX. DEPTH =     |                     | m   |
|                |            |                              |                                     |            |                  |                     |     |
| POS.           | TRIP DEPTH | CTD CONVERTED MONITOR VALUES |                                     |            |                  |                     |     |
|                |            | PRESSURE                     |                                     | PRI. TEMP. | SEC. TEMP.       | SALINITY            |     |
| 1              | Bot        | 5                            |                                     |            |                  | SALINITY            |     |
| 2              | 125        | 6                            |                                     |            |                  | 5                   |     |
| 3              | 100        | 7                            | became unsaturated, CTD destroyed - |            |                  |                     | 6   |
| 4              | 75         | 9                            |                                     |            |                  | 7                   |     |
| 5              | 50         | 10                           |                                     |            |                  | 9                   |     |
| 6              | 40         | 11                           |                                     |            |                  | 10                  |     |
| 7              | 30         | 14                           |                                     |            |                  | 11                  |     |
| 8              | 20         | 20                           |                                     |            |                  | 17                  |     |
| 9              | 10         | 21                           | - pretest sample - Edebye Island #1 |            |                  |                     | 20  |
| 10             | 0          | 22                           |                                     |            |                  | 21                  |     |
| 11             |            |                              |                                     |            |                  | 22                  |     |
| 12             |            |                              |                                     |            |                  |                     |     |

[illegible]

| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0305b |  | DSDB I.D.                    |  | STATION DESIGNATION |  |
|--------------------------|--|--------------------------|--|------------------------------|--|---------------------|--|
| CONSC<br>CAST #          |  | 18.45                    |  | 24.87                        |  | 0544                |  |
| LATITUDE                 |  | DEG MIN                  |  | LONGITUDE                    |  | TIME (GMT)          |  |
| 20 259 18.41 N           |  | 114 920.86 W             |  | 11 MAY 03                    |  | 0544                |  |
| SBE 9+                   |  | DEG                      |  | MIN                          |  | HR MIN              |  |
| PRESS SN                 |  | 114 920.86               |  | 11 MAY 03                    |  | 0544                |  |
| PRI TEMP SN              |  | DEG                      |  | MIN                          |  | HR MIN              |  |
| SEC TEMP SN              |  | 114 920.86               |  | 11 MAY 03                    |  | 0544                |  |
| PRI COND SN              |  | DEG                      |  | MIN                          |  | HR MIN              |  |
| SEC COND SN              |  | 114 920.86               |  | 11 MAY 03                    |  | 0544                |  |
| POS.                     |  | TRIP DEPTH               |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA  |  |
| 1 bottom                 |  | 5'                       |  | PRESSURE                     |  | SALINITY            |  |
| 2 100                    |  | 6'                       |  | PRI TEMP.                    |  | SALINITY            |  |
| 3 75                     |  | 7'                       |  | SEC TEMP.                    |  | SALINITY            |  |
| 4 50                     |  | 9'                       |  | PRI TEMP.                    |  | SALINITY            |  |
| 5 30                     |  | 10'                      |  | SEC TEMP.                    |  | SALINITY            |  |
| 6 20                     |  | 11'                      |  | PRI TEMP.                    |  | SALINITY            |  |
| 7 10                     |  | 17'                      |  | SEC TEMP.                    |  | SALINITY            |  |
| 8 0                      |  | 20'                      |  | PRI TEMP.                    |  | SALINITY            |  |
| 9                        |  |                          |  | SEC TEMP.                    |  | SALINITY            |  |
| 10                       |  |                          |  | PRI TEMP.                    |  | SALINITY            |  |
| 11                       |  |                          |  | SEC TEMP.                    |  | SALINITY            |  |
| 12                       |  |                          |  | PRI TEMP.                    |  | SALINITY            |  |

[illegible]

| VESSEL         |       | PROJECT & LEG |     | DSDB I.D.    |      | STATION DESIGNATION |      |
|----------------|-------|---------------|-----|--------------|------|---------------------|------|
| R/V Kilo Moana |       | KM0305b       |     |              |      |                     |      |
| CONSC CAST #   | 27.60 | 54.24         |     | 4834         |      |                     |      |
| DEG            | MIN   | DEG           | MIN | DATE         | DATE | TIME                | TIME |
| 24             | 59    | 24            | 53  | 11           | 11   | 08                  | 08   |
| 4              | 99    | 4             | 8   | W            | W    | 49                  | 49   |
| N              |       | N             |     |              |      |                     |      |
| LATITUDE       |       | LONGITUDE     |     | DATE         |      | TIME                |      |
| 27.60          |       | 54.24         |     | 11 MAY 03    |      | 08:49               |      |
| CONSC CAST #   |       | CONSC CAST #  |     | CONSC CAST # |      | CONSC CAST #        |      |
| 24             |       | 24            |     | 24           |      | 24                  |      |
| 4              |       | 4             |     | 4            |      | 4                   |      |
| N              |       | N             |     | N            |      | N                   |      |
| LATITUDE       |       | LONGITUDE     |     | DATE         |      | TIME                |      |
| 27.60          |       | 54.24         |     | 11 MAY 03    |      | 08:49               |      |
| CONSC CAST #   |       | CONSC CAST #  |     | CONSC CAST # |      | CONSC CAST #        |      |
| 24             |       | 24            |     | 24           |      | 24                  |      |
| 4              |       | 4             |     | 4            |      | 4                   |      |
| N              |       | N             |     | N            |      | N                   |      |
| LATITUDE       |       | LONGITUDE     |     | DATE         |      | TIME                |      |
| 27.60          |       | 54.24         |     | 11 MAY 03    |      | 08:49               |      |
| CONSC CAST #   |       | CONSC CAST #  |     | CONSC CAST # |      | CONSC CAST #        |      |
| 24             |       | 24            |     | 24           |      | 24                  |      |
| 4              |       | 4             |     | 4            |      | 4                   |      |
| N              |       | N             |     | N            |      | N                   |      |
| LATITUDE       |       | LONGITUDE     |     | DATE         |      | TIME                |      |
| 27.60          |       | 54.24         |     | 11 MAY 03    |      | 08:49               |      |
| CONSC CAST #   |       | CONSC CAST #  |     | CONSC CAST # |      | CONSC CAST #        |      |
| 24             |       | 24            |     | 24           |      | 24                  |      |
| 4              |       | 4             |     | 4            |      | 4                   |      |
| N              |       | N             |     | N            |      | N                   |      |
| LATITUDE       |       | LONGITUDE     |     | DATE         |      | TIME                |      |
| 27.60          |       | 54.24         |     | 11 MAY 03    |      | 08:49               |      |
| CONSC CAST #   |       | CONSC CAST #  |     | CONSC CAST # |      | CONSC CAST #        |      |
| 24             |       | 24            |     | 24           |      | 24                  |      |
| 4              |       | 4             |     | 4            |      | 4                   |      |
| N              |       | N             |     | N            |      | N                   |      |
| LATITUDE       |       | LONGITUDE     |     | DATE         |      | TIME                |      |
| 27.60          |       | 54.24         |     | 11 MAY 03    |      | 08:49               |      |
| CONSC CAST #   |       | CONSC CAST #  |     | CONSC CAST # |      | CONSC CAST #        |      |
| 24             |       | 24            |     | 24           |      | 24                  |      |
| 4              |       | 4             |     | 4            |      | 4                   |      |
| N              |       | N             |     | N            |      | N                   |      |
| LATITUDE       |       | LONGITUDE     |     | DATE         |      | TIME                |      |
| 27.60          |       | 54.24         |     | 11 MAY 03    |      | 08:49               |      |
| CONSC CAST #   |       | CONSC CAST #  |     | CONSC CAST # |      | CONSC CAST #        |      |
| 24             |       | 24            |     | 24           |      | 24                  |      |
| 4              |       | 4             |     | 4            |      | 4                   |      |
| N              |       | N             |     | N            |      | N                   |      |
| LATITUDE       |       | LONGITUDE     |     | DATE         |      | TIME                |      |
| 27.60          |       | 54.24         |     | 11 MAY 03    |      | 08:49               |      |
| CONSC CAST #   |       | CONSC CAST #  |     | CONSC CAST # |      | CONSC CAST #        |      |
| 24             |       | 24            |     | 24           |      | 24                  |      |
| 4              |       | 4             |     | 4            |      | 4                   |      |
| N              |       | N             |     | N            |      | N                   |      |
| LATITUDE       |       | LONGITUDE     |     | DATE         |      | TIME                |      |
| 27.60          |       | 54.24         |     | 11 MAY 03    |      | 08:49               |      |
| CONSC CAST #   |       | CONSC CAST #  |     | CONSC CAST # |      | CONSC CAST #        |      |
| 24             |       | 24            |     | 24           |      | 24                  |      |
| 4              |       | 4             |     | 4            |      | 4                   |      |
| N              |       | N             |     | N            |      | N                   |      |
| LATITUDE       |       | LONGITUDE     |     | DATE         |      | TIME                |      |
| 27.60          |       | 54.24         |     | 11 MAY 03    |      | 08:49               |      |
| CONSC CAST #   |       | CONSC CAST #  |     | CONSC CAST # |      | CONSC CAST #        |      |
| 24             |       | 24            |     | 24           |      | 24                  |      |
| 4              |       | 4             |     | 4            |      | 4                   |      |
| N              |       | N             |     | N            |      | N                   |      |
| LATITUDE       |       | LONGITUDE     |     | DATE         |      | TIME                |      |
| 27.60          |       | 54.24         |     | 11 MAY 03    |      | 08:49               |      |
| CONSC CAST #   |       | CONSC CAST #  |     | CONSC CAST # |      | CONSC CAST #        |      |
| 24             |       | 24            |     | 24           |      | 24                  |      |
| 4              |       | 4             |     | 4            |      | 4                   |      |
| N              |       | N             |     | N            |      | N                   |      |
| LATITUDE       |       | LONGITUDE     |     | DATE         |      | TIME                |      |
| 27.60          |       | 54.24         |     | 11 MAY 03    |      | 08:49               |      |
| CONSC CAST #   |       | CONSC CAST #  |     | CONSC CAST # |      | CONSC CAST #        |      |

94

| VESSEL<br>R/V Kilo Moana     |  | PROJECT & LEG<br>KM0305b |  |           |  | DSDB I.D. |  | STATION DESIGNATION |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
|------------------------------|--|--------------------------|--|-----------|--|-----------|--|---------------------|--|----------|--|----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|---------|--|--------------|--|--------------|--|
| CONSC<br>CAST #              |  | LATITUDE                 |  | LONGITUDE |  | DATE JD=  |  | TIME (GMT)          |  | DRY BULB |  | WET BULB |  | PRESSURE |  | SEA STATE |  | VISIBILITY |  | WIND DIRN. |  | WIND SPD. |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 29.07                        |  | 46.03                    |  | 4937      |  | 4937      |  | 4937                |  | 4937     |  | 4937     |  | 4937     |  | 4937      |  | 4937       |  | 4937       |  | 4937      |  | 4937        |  | 4937    |  | 4937         |  | 4937         |  |
| 2055                         |  | 29.07                    |  | 46.03     |  | 11/03     |  | 0946                |  | 6.4      |  | 5.5      |  | 746      |  | 46        |  | 46         |  | 46         |  | 46        |  | 46          |  | 46      |  | 46           |  | 46           |  |
| SBE 9+                       |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRESS SN                     |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI TEMP SN                  |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC TEMP SN                  |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI COND SN                  |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC COND SN                  |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PAR S/N                      |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| FLUOR S/N                    |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| CTD CONVERTED MONITOR VALUES |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SAMPLE BOTTLE DATA           |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SAMPLE BOTTLE NUMBER         |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| WHIT'S NUTR.                 |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| CHL.                         |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| NUTR.                        |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SAL.                         |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SALINITY                     |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| SEC. TEMP.                   |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRI. TEMP.                   |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| PRESSURE                     |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| TRIP DEPTH                   |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| POS.                         |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 1 bottom                     |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 2 75                         |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 3 50                         |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 4 30                         |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 5 20                         |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 6 10                         |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 7 0                          |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 8                            |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 9                            |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 10                           |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 11                           |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |
| 12                           |  |                          |  |           |  |           |  |                     |  |          |  |          |  |          |  |           |  |            |  |            |  |           |  |             |  |         |  |              |  |              |  |

205 Sample #2

Every Legend #

[illegible]

207

Two files: ctd200.dat and ctd200b1+.dat !!!

| VESSEL<br>R/V Kilo Moana |        | PROJECT & LEG<br>KM0309 |     | DSDB ID.  |    | STATION DESCRIPTION |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
|--------------------------|--------|-------------------------|-----|-----------|----|---------------------|----|------------|------|----------|------|----------|-------|----------|-------|-----------|-------|------------|-------|-----------|-----|-------------|-------|---------|-----|--------------|-----|--------------|-----|---|---|---|---|---|---|----|----|
| CONSC<br>CAST #          |        | LATITUDE                |     | LONGITUDE |    | DATE                |    | TIME (GMT) |      | DRY BULB |      | WET BULB |       | PRESSURE |       | SEA STATE |       | WIND DIRN. |       | WIND SPD. |     | CLOUD (amt) |       | WEATHER |     | BOTTOM DEPTH |     | STA. NAME/ID |     |   |   |   |   |   |   |    |    |
| DEG                      | MIN    | DEG                     | MIN | DAY       | MO | YR                  | HR | MIN        | (°C) | (°C)     | (mb) | (deg)    | (m/s) | (m)      | (deg) | (m/s)     | (amt) | (amt)      | (deg) | (m/s)     | (m) | (amt)       | (amt) | (deg)   | (m) | (deg)        | (m) | (deg)        | (m) |   |   |   |   |   |   |    |    |
| 208                      | 59     | 22                      | 73  | N         | 14 | 51                  | 6  | 22         | W    | 12       | M    | A        | Y     | 03       | 08    | 45        | 07    | 30         | 6     | 0         | 9   | 7           | 3     | 7       | 2   | 6            | 4   | 14           | 6   | 7 | 1 | 1 | 0 | 4 | 1 | EN | SI |
| SBE 9+                   |        | TIMES                   |     | JD/TIME   |    | PAR S/N             |    | FLUOR S/N  |      | REMARKS  |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| SEC COND SN              |        | TRIP DEPTH              |     | PRESSURE  |    | PRI. TEMP.          |    | SEC. TEMP. |      | SALINITY |      | SALINITY |       | SAL.     |       | NUTR.     |       | CHL.       |       | NUTR.     |     | SAL.        |       | NUTR.   |     | CHL.         |     | NUTR.        |     |   |   |   |   |   |   |    |    |
| 1                        | Bottom |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 2                        | 1750   |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 3                        | 1500   |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 4                        | 1250   |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 5                        | 1000   |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 6                        | 900    |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 7                        | 800    |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 8                        | 700    |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 9                        | 600    |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 10                       | 500    |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 11                       | 400    |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 12                       | 300    |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 13                       | 250    |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 14                       | 200    |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 15                       | 175    |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 16                       | 150    |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 17                       | 125    |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 18                       | 100    |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 19                       | 75     |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 20                       | 50     |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 21                       | 30     |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 22                       | 20     |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 23                       | 10     |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |
| 24                       | 0      |                         |     |           |    |                     |    |            |      |          |      |          |       |          |       |           |       |            |       |           |     |             |       |         |     |              |     |              |     |   |   |   |   |   |   |    |    |

5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

[illegible]

| VESSEL<br>R/V Kilo Moana |            | PROJECT & LEG<br>KMO309 |     |            |    | DSDB I.D.    |    |            |      | STATION DESIGNATION          |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
|--------------------------|------------|-------------------------|-----|------------|----|--------------|----|------------|------|------------------------------|---|----------|---|-----------|-------|------------|---|------------|---|-----------|---|-------------|---|---------|---|--------------|---|--------------|------|
| CONSC<br>CAST #          |            | LATITUDE                |     | LONGITUDE  |    | DATE JD= 132 |    | TIME (GMT) |      | WET BULB                     |   | PRESSURE |   | SEA STATE |       | VISIBILITY |   | WIND DIRN. |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |   | STA. NAME/ID |      |
| DEG                      | MIN        | DEG                     | MIN | DAY        | MO | YR           | HR | MIN        | (°C) | (mb)                         | * | *        | * | *         | (m/s) | *          | * | *          | * | *         | * | (m)         |   |         |   |              |   |              |      |
| 21                       | 05         | 01                      | 48  | N          | 14 | 5            | 37 | W          | 12   | M                            | A | Y        | 0 | 3         | 1     | 5          | 4 | 0          | 8 | 0         | 0 | 5           | 7 | 2       | 4 | 2            | 6 | 2            | EM93 |
| SBE 9+                   |            | TIMES                   |     | JD/TIME    |    | FLUOR S/N    |    | PAR S/N    |      | CTD CONVERTED MONITOR VALUES |   | SALINITY |   | SALINITY  |       | SAL.       |   | NUTR.      |   | NUTR.     |   | CHL.        |   | NUTR.   |   | REMARKS      |   |              |      |
| POS.                     | TRIP DEPTH | PRESSURE                |     | PRI. TEMP. |    | SEC. TEMP.   |    | SALINITY   |      | SALINITY                     |   | SAL.     |   | NUTR.     |       | CHL.       |   | NUTR.      |   | NUTR.     |   | CHL.        |   | NUTR.   |   | REMARKS      |   |              |      |
| 1                        | 2000       | Leak                    |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 2                        | 1750       |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 3                        | 1500       |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 4                        | 1250       |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 5                        | 1000       |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 6                        | 960        |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 7                        | 900        |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 8                        | 700        |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 9                        | 600        |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 10                       | 500        |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 11                       | 400        |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 12                       | 300        |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 13                       | 250        |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 14                       | 200        |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 15                       | 175        |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 16                       | 150        |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 17                       | 125        |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 18                       | 100        |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 19                       | 75         |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 20                       | 50         |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 21                       | 30         |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 22                       | 20         |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 23                       | 10         |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |
| 24                       | 0          |                         |     |            |    |              |    |            |      |                              |   |          |   |           |       |            |   |            |   |           |   |             |   |         |   |              |   |              |      |

Evelyn Leased Sample #4

| VESSEL            |            | PROJECT & LEG |            | DSD8 I.D.  |          | STATION DESIGNATION |                      |
|-------------------|------------|---------------|------------|------------|----------|---------------------|----------------------|
| R/V Kilo Moana    |            | KM0309        |            |            |          |                     |                      |
| CONSC CAST #      | DEG        | MIN           | LATITUDE   | DEG        | MIN      | LONGITUDE           | DATE                 |
|                   |            |               |            |            |          |                     | JD= 132              |
|                   |            |               |            |            |          |                     | DAY MO YR            |
|                   |            |               |            |            |          |                     | 12 MAY 03            |
|                   |            |               |            |            |          |                     | TIME (GMT)           |
|                   |            |               |            |            |          |                     | HR MIN               |
|                   |            |               |            |            |          |                     | 19 38                |
|                   |            |               |            |            |          |                     | WET BULB             |
|                   |            |               |            |            |          |                     | (°C)                 |
|                   |            |               |            |            |          |                     | 6.8                  |
|                   |            |               |            |            |          |                     | DRY BULB             |
|                   |            |               |            |            |          |                     | (°C)                 |
|                   |            |               |            |            |          |                     | 9.1                  |
|                   |            |               |            |            |          |                     | PRESSURE             |
|                   |            |               |            |            |          |                     | (mb)                 |
|                   |            |               |            |            |          |                     | 38.25                |
|                   |            |               |            |            |          |                     | WIND DIRN.           |
|                   |            |               |            |            |          |                     | (deg)                |
|                   |            |               |            |            |          |                     | 252                  |
|                   |            |               |            |            |          |                     | WIND SPD.            |
|                   |            |               |            |            |          |                     | (m/s)                |
|                   |            |               |            |            |          |                     | 16                   |
|                   |            |               |            |            |          |                     | CLOUD (amt)          |
|                   |            |               |            |            |          |                     | *                    |
|                   |            |               |            |            |          |                     | 66                   |
|                   |            |               |            |            |          |                     | WEATHER              |
|                   |            |               |            |            |          |                     | *                    |
|                   |            |               |            |            |          |                     | 4111                 |
|                   |            |               |            |            |          |                     | BOTTOM DEPTH         |
|                   |            |               |            |            |          |                     | (m)                  |
|                   |            |               |            |            |          |                     | 4111                 |
|                   |            |               |            |            |          |                     | STA. NAME/ID         |
|                   |            |               |            |            |          |                     | EN34                 |
| REMARKS           |            |               |            |            |          |                     |                      |
| SBE 9+ _____      |            |               |            |            |          |                     |                      |
| SEC COND SN _____ |            |               |            |            |          |                     |                      |
| TIMES _____       |            |               |            |            |          |                     |                      |
| PAR S/N _____     |            |               |            |            |          |                     |                      |
| FLUOR S/N _____   |            |               |            |            |          |                     |                      |
| POS.              | TRIP DEPTH | PRESSURE      | PRI. TEMP. | SEC. TEMP. | SALINITY | SAMPLE BOTTLE DATA  | SAMPLE BOTTLE NUMBER |
|                   |            |               |            |            |          | SAL.                | NUTR.                |
| 1                 | 2000       | -             |            |            |          | 1                   | 73                   |
| 2                 | 1750       | -             |            |            |          | 2                   | 74                   |
| 3                 | 1500       | -             |            |            |          | 3                   | 75                   |
| 4                 | 1250       | -             |            |            |          | 4                   | 76                   |
| 5                 | 1000       | -             |            |            |          | 5                   | 77                   |
| 6                 | 900        | -             |            |            |          | 6                   | 78                   |
| 7                 | 800        | -             |            |            |          | 7                   | 79                   |
| 8                 | 700        | -             |            |            |          | 8                   | 80                   |
| 9                 | 600        | -             |            |            |          | 9                   | 81                   |
| 10                | 500        | -             |            |            |          | 10                  | 82                   |
| 11                | 400        | -             |            |            |          | 11                  | 83                   |
| 12                | 300        | -             |            |            |          | 12                  | 84                   |
| 13                | 250        | -             |            |            |          | 13                  | 85                   |
| 14                | 200        | -             |            |            |          | 14                  | 86                   |
| 15                | 175        | -             |            |            |          | 15                  | 87                   |
| 16                | 150        | -             |            |            |          | 16                  | 88                   |
| 17                | 125        | -             |            |            |          | 17                  | 89                   |
| 18                | 100        | -             |            |            |          | 18                  | 90                   |
| 19                | 75         | -             |            |            |          | 19                  | 91                   |
| 20                | 50         | -             |            |            |          | 20                  | 92                   |
| 21                | 30         | -             |            |            |          | 21                  | 93                   |
| 22                | 20         | -             |            |            |          | 22                  | 94                   |
| 23                | 10         | -             |            |            |          | 23                  | 95                   |
| 24                | 0          | -             |            |            |          | 24                  | 96                   |

| Drift | 37492 | 58 | 40.57 | 145 | 15.96 | 12-M <sub>avg</sub> -83:23:36 |
|-------|-------|----|-------|-----|-------|-------------------------------|
| Drift | 37492 | 58 | 40.57 | 145 | 15.96 | 12-M <sub>avg</sub> -83:23:36 |

| VESSEL          |  |  |  |  |  |  |  |  |  | PROJECT & LEG |  |  |  |  |  |  |  |  |  | STATION DESIGNATION          |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|--|--|--|---------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|------------|--|--|--|--|--|--|--|--|--|-----------|--|--|--|--|--|--|--|--|--|----------|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|--|--|
| R/V Kilo Moana  |  |  |  |  |  |  |  |  |  | KM0309        |  |  |  |  |  |  |  |  |  | END05                        |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| CONSC CAST #    |  |  |  |  |  |  |  |  |  | DATE          |  |  |  |  |  |  |  |  |  | TIME (GMT)                   |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER  |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  | STA. NAME/ID |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| LATITUDE        |  |  |  |  |  |  |  |  |  | LONGITUDE     |  |  |  |  |  |  |  |  |  | TIME (GMT)                   |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER  |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  | STA. NAME/ID |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| DEG MIN         |  |  |  |  |  |  |  |  |  | DEG MIN       |  |  |  |  |  |  |  |  |  | HR MIN                       |  |  |  |  |  |  |  |  |  | (deg)      |  |  |  |  |  |  |  |  |  | (m/s)     |  |  |  |  |  |  |  |  |  | TYPE     |  |  |  |  |  |  |  |  |  | (m)          |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 2125840.62N     |  |  |  |  |  |  |  |  |  | 14515.21W     |  |  |  |  |  |  |  |  |  | 12MAY03                      |  |  |  |  |  |  |  |  |  | 8.5        |  |  |  |  |  |  |  |  |  | 6.7       |  |  |  |  |  |  |  |  |  | 9938     |  |  |  |  |  |  |  |  |  | 461          |  |  |  |  |  |  |  |  |  | 4087EN       |  |  |  |  |  |  |  |  |  | SD5   |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| SBE 9+          |  |  |  |  |  |  |  |  |  | JD/TIME       |  |  |  |  |  |  |  |  |  | FLUOR S/N                    |  |  |  |  |  |  |  |  |  | PRESSURE   |  |  |  |  |  |  |  |  |  | SALINITY  |  |  |  |  |  |  |  |  |  | SALINITY |  |  |  |  |  |  |  |  |  | SAL.         |  |  |  |  |  |  |  |  |  | NUTR.        |  |  |  |  |  |  |  |  |  | CHL.  |  |  |  |  |  |  |  |  |  | NUTR. |  |  |  |  |  |  |  |  |  |
| SEC COND SN     |  |  |  |  |  |  |  |  |  | PAR S/N       |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | SALINITY   |  |  |  |  |  |  |  |  |  | SALINITY  |  |  |  |  |  |  |  |  |  | SAL.     |  |  |  |  |  |  |  |  |  | NUTR.        |  |  |  |  |  |  |  |  |  | CHL.         |  |  |  |  |  |  |  |  |  | NUTR. |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| POS. TRIP DEPTH |  |  |  |  |  |  |  |  |  | PRESSURE      |  |  |  |  |  |  |  |  |  | PRI. TEMP.                   |  |  |  |  |  |  |  |  |  | SEC. TEMP. |  |  |  |  |  |  |  |  |  | SALINITY  |  |  |  |  |  |  |  |  |  | SALINITY |  |  |  |  |  |  |  |  |  | SAL.         |  |  |  |  |  |  |  |  |  | NUTR.        |  |  |  |  |  |  |  |  |  | CHL.  |  |  |  |  |  |  |  |  |  | NUTR. |  |  |  |  |  |  |  |  |  |
| 1 2000          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 1        |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 97           |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 2 1750          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 2        |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 98           |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 3 1500          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 3        |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 99           |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 4 1250          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 4        |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 100          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 5 1000          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 5        |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 101          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 6 900           |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 6        |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 102          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 7 800           |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 7        |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 103          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 8 700           |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 8        |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 104          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 9 600           |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 9        |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 105          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 10 500          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 10       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 106          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 11 400          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 11       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 107          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 12 300          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 12       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 108          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 13 250          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 13       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 109          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 14 200          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 14       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 110          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 15 175          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 15       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 111          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 16 150          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 16       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 112          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 17 125          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 17       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 113          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 18 100          |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 18       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 114          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 19 75           |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 19       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 115          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 20 50           |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 20       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 116          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 21 30           |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 21       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 117          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 22 20           |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 22       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 118          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 23 10           |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 23       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 119          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 24 0            |  |  |  |  |  |  |  |  |  | ✓             |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  | 24       |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  | 120          |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |

Ducter 37504 / 58° 30.01' N - 145° 15.43' W / 13-May-2403:03:48

[illegible]

[illegible]



| VESSEL<br>R/V Kilo Moana     |     | PROJECT & LEG<br>KMO309 |     |           |     | DSDB I.D.  |    |            |    | STATION DESIGNATION |      |            |       |           |     |             |    |         |    |                     |    |                      |    |
|------------------------------|-----|-------------------------|-----|-----------|-----|------------|----|------------|----|---------------------|------|------------|-------|-----------|-----|-------------|----|---------|----|---------------------|----|----------------------|----|
| CONSC<br>CAST #              |     | LATITUDE                |     | LONGITUDE |     | DATE       |    | TIME (GMT) |    | WET BULB            |      | WIND DIRN. |       | WIND SPD. |     | CLOUD (amt) |    | WEATHER |    | BOTTOM<br>DEPTH (m) |    | STA. NAME/ID         |    |
| DEG                          | MIN | DEG                     | MIN | DEG       | MIN | DAY        | MO | YR         | HR | MIN                 | (°C) | (deg)      | (m/s) | *         | *   | *           | *  | *       | *  | (m)                 |    |                      |    |
| 21                           | 6   | 58                      | 04  | 14        | 51  | 7          | 7  | 13         | 10 | 43                  | 06   | 00         | 04    | 06        | 06  | 06          | 06 | 06      | 06 | 06                  | 06 | 06                   | 06 |
| SBE 9+ _____                 |     |                         |     |           |     |            |    |            |    |                     |      |            |       |           |     |             |    |         |    |                     |    |                      |    |
| SEC COND SN _____            |     |                         |     |           |     |            |    |            |    |                     |      |            |       |           |     |             |    |         |    |                     |    |                      |    |
| TIMES _____                  |     |                         |     |           |     |            |    |            |    |                     |      |            |       |           |     |             |    |         |    |                     |    |                      |    |
| PAR S/N _____                |     |                         |     |           |     |            |    |            |    |                     |      |            |       |           |     |             |    |         |    |                     |    |                      |    |
| FLUOR S/N _____              |     |                         |     |           |     |            |    |            |    |                     |      |            |       |           |     |             |    |         |    |                     |    |                      |    |
| CTD CONVERTED MONITOR VALUES |     |                         |     |           |     |            |    |            |    |                     |      |            |       |           |     |             |    |         |    |                     |    |                      |    |
| POS.                         |     | TRIP DEPTH              |     | PRESSURE  |     | PRI. TEMP. |    | SEC. TEMP. |    | SALINITY            |      | SALINITY   |       | SAL.      |     | NUTR.       |    | CHL.    |    | NUTR.               |    | SAMPLE BOTTLE NUMBER |    |
| 1                            |     | 2000                    |     |           |     |            |    |            |    |                     |      |            |       |           | 238 |             | 25 |         |    |                     |    |                      |    |
| 2                            |     | 1750                    |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 26 |         |    |                     |    |                      |    |
| 3                            |     | 1500                    |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 27 |         |    |                     |    |                      |    |
| 4                            |     | 1250                    |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 28 |         |    |                     |    |                      |    |
| 5                            |     | 1000                    |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 29 |         |    |                     |    |                      |    |
| 6                            |     | 900                     |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 30 |         |    |                     |    |                      |    |
| 7                            |     | 800                     |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 31 |         |    |                     |    |                      |    |
| 8                            |     | 700                     |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 32 |         |    |                     |    |                      |    |
| 9                            |     | 600                     |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 33 |         |    |                     |    |                      |    |
| 10                           |     | 500                     |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 34 |         |    |                     |    |                      |    |
| 11                           |     | 400                     |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 35 |         |    |                     |    |                      |    |
| 12                           |     | 300                     |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 36 |         |    |                     |    |                      |    |
| 13                           |     | 250                     |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 37 |         |    |                     |    |                      |    |
| 14                           |     | 200                     |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 38 |         |    |                     |    |                      |    |
| 15                           |     | 175                     |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 39 |         |    |                     |    |                      |    |
| 16                           |     | 150                     |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 40 |         |    |                     |    |                      |    |
| 17                           |     | 125                     |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 41 |         |    |                     |    |                      |    |
| 18                           |     | 100                     |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 42 |         |    |                     |    |                      |    |
| 19                           |     | 75                      |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 43 |         |    |                     |    |                      |    |
| 20                           |     | 50                      |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 44 |         |    |                     |    |                      |    |
| 21                           |     | 30                      |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 45 |         |    |                     |    |                      |    |
| 22                           |     | 20                      |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 46 |         |    |                     |    |                      |    |
| 23                           |     | 10                      |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 47 |         |    |                     |    |                      |    |
| 24                           |     | 0                       |     |           |     |            |    |            |    |                     |      |            |       |           |     |             | 48 |         |    |                     |    |                      |    |

*Evelyn Leonard Sample #7*



Evlyn Howard - Lucas #8  
volume a little low-

| VESSEL<br>R/V Kilo Moana |            | PROJECT & LEG<br>KMO309      |            |            |              | DSDB I.D.          |            | STATION DESIGNATION |                  |                  |           |            |               |              |             |         |                 |              |       |                      |  |  |
|--------------------------|------------|------------------------------|------------|------------|--------------|--------------------|------------|---------------------|------------------|------------------|-----------|------------|---------------|--------------|-------------|---------|-----------------|--------------|-------|----------------------|--|--|
| CONSC<br>CAST #          | LATITUDE   |                              | LONGITUDE  |            | DATE JD- 133 |                    | TIME (GMT) |                     | WET BULB<br>(°C) | PRESSURE<br>(mb) | SEA STATE | VISIBILITY | WIND<br>DIRN. | WIND<br>SPD. | CLOUD (amt) | WEATHER | BOTTOM<br>DEPTH | STA. NAME/ID |       |                      |  |  |
|                          | DEG        | MIN                          | DEG        | MIN        | DAY          | MO                 | YR         | HR                  |                  |                  |           |            |               |              |             |         |                 |              | MIN   |                      |  |  |
| 219                      | 57         | 38                           | 145        | 15         | 13           | W                  | 13         | 19                  | 57               | 5.8              | 4.29      | 83         | 8             | 25           | 4           | 6       | 138             | 65           | ENS12 |                      |  |  |
| SBE 9+ _____             |            |                              |            |            |              |                    |            |                     |                  |                  |           |            |               |              |             |         |                 |              |       |                      |  |  |
| SEC COND SN _____        |            |                              |            |            |              |                    |            |                     |                  |                  |           |            |               |              |             |         |                 |              |       |                      |  |  |
| TIMES _____              |            |                              |            |            |              |                    |            |                     |                  |                  |           |            |               |              |             |         |                 |              |       |                      |  |  |
| JD/TIME _____            |            |                              |            |            |              |                    |            |                     |                  |                  |           |            |               |              |             |         |                 |              |       |                      |  |  |
| PAR S/N _____            |            |                              |            |            |              |                    |            |                     |                  |                  |           |            |               |              |             |         |                 |              |       |                      |  |  |
| FLUOR S/N _____          |            |                              |            |            |              |                    |            |                     |                  |                  |           |            |               |              |             |         |                 |              |       |                      |  |  |
| POS.                     | TRIP DEPTH | CTD CONVERTED MONITOR VALUES |            |            |              |                    |            |                     |                  |                  |           |            |               |              |             |         |                 |              |       |                      |  |  |
|                          |            | PRESSURE                     | PRI. TEMP. | SEC. TEMP. | SALINITY     | SAMPLE BOTTLE DATA |            |                     |                  |                  |           |            |               |              |             |         |                 |              |       | SAMPLE BOTTLE NUMBER |  |  |
|                          |            |                              |            |            |              |                    |            |                     |                  |                  |           |            |               |              |             |         |                 |              |       |                      |  |  |
| 1                        | 2000       | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 1            |             |         |                 |              | 97    |                      |  |  |
| 2                        | 1750       | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 2            |             |         |                 |              | 98    |                      |  |  |
| 3                        | 1500       | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 3            | 241         |         |                 |              | 99    |                      |  |  |
| 4                        | 1250       | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 4            |             |         |                 |              | 100   |                      |  |  |
| 5                        | 1000       | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 5            |             |         |                 |              | 101   |                      |  |  |
| 6                        | 900        | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 6            |             |         |                 |              | 102   |                      |  |  |
| 7                        | 800        | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 7            |             |         |                 |              | 103   |                      |  |  |
| 8                        | 700        | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 8            |             |         |                 |              | 104   |                      |  |  |
| 9                        | 600        | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 9            |             |         |                 |              | 105   |                      |  |  |
| 10                       | 500        | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 10           |             |         |                 |              | 106   |                      |  |  |
| 11                       | 400        | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 11           |             |         |                 |              | 107   |                      |  |  |
| 12                       | 300        | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 12           |             |         |                 |              | 108   |                      |  |  |
| 13                       | 250        | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 13           |             |         |                 |              | 109   |                      |  |  |
| 14                       | 200        | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 14           |             |         |                 |              | 110   |                      |  |  |
| 15                       | 175        | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 15           |             |         |                 |              | 111   |                      |  |  |
| 16                       | 150        | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 16           |             |         |                 |              | 112   |                      |  |  |
| 17                       | 125        | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 17           |             |         |                 |              | 113   |                      |  |  |
| 18                       | 100        | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 18           |             |         |                 |              | 114   |                      |  |  |
| 19                       | 75         | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 19           |             |         |                 |              | 115   |                      |  |  |
| 20                       | 50         | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 20           |             |         |                 |              | 116   |                      |  |  |
| 21                       | 30         | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 21           |             |         |                 |              | 117   |                      |  |  |
| 22                       | 20         | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 22           |             |         |                 |              | 118   |                      |  |  |
| 23                       | 10         | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 23           |             |         |                 |              | 119   |                      |  |  |
| 24                       | 0          | ✓                            |            |            |              |                    |            |                     |                  |                  |           |            |               | 24           |             |         |                 |              | 120   |                      |  |  |

| VESSEL         |            | PROJECT & LEG                |            | DSDB I.D.    |          | STATION DESIGNATION |          |                                |      |            |       |                      |       |         |   |              |   |              |  |
|----------------|------------|------------------------------|------------|--------------|----------|---------------------|----------|--------------------------------|------|------------|-------|----------------------|-------|---------|---|--------------|---|--------------|--|
| R/V Kilo Moana |            | KMO309                       |            |              |          |                     |          |                                |      |            |       |                      |       |         |   |              |   |              |  |
| CONSC CAST #   | 38.44      | 38.45                        |            | DATE JD= 134 |          | TIME (GMT)          |          | WET BULB                       |      | WIND DIRN. |       | WIND SPD.            |       | WEATHER |   | BOTTOM DEPTH |   | STA. NAME/ID |  |
| DEG            | MIN        | DEG                          | MIN        | DAY          | MO       | YR                  | HR       | MIN                            | (°C) | (mb)       | (deg) | (m/s)                | (amt) | *       | * | (m)          |   |              |  |
| 22             | 58         | 38                           | 38         | 14           | 3        | 03                  | 04       | 39                             | 8.4  | 5.6        | 83    | 8                    | 36    | 13      | 5 | 19           | E | W            |  |
| SBE 9+         |            | JD/TIME                      |            | PAR S/N      |          | FLUOR S/N           |          | REMARKS                        |      |            |       |                      |       |         |   |              |   |              |  |
| SEC COND SN    |            | TIMES                        |            | PAR S/N      |          | FLUOR S/N           |          | No wind kfc seen, 1 fawn birds |      |            |       |                      |       |         |   |              |   |              |  |
| POS.           | TRIP DEPTH | CTD CONVERTED MONITOR VALUES |            |              |          |                     |          | SAMPLE BOTTLE DATA             |      |            |       | SAMPLE BOTTLE NUMBER |       |         |   |              |   |              |  |
|                |            | PRESSURE                     | PRI. TEMP. | SEC. TEMP.   | SALINITY | SALINITY            | SALINITY | SALINITY                       | SAL. | NUTR.      | CHL.  | NUTR.                | NUTR. |         |   |              |   |              |  |
| 1              | 22.44      | ✓                            |            |              |          |                     |          |                                | 1    | 242        | 121   |                      |       |         |   |              |   |              |  |
| 2              | 28.44      | ✓                            |            |              |          |                     |          |                                | 2    |            | 122   |                      |       |         |   |              |   |              |  |
| 3              | 17.54      | ✓                            |            |              |          |                     |          |                                | 3    |            | 123   |                      |       |         |   |              |   |              |  |
| 4              | 15.44      | ✓                            |            |              |          |                     |          |                                | 4    |            | 124   |                      |       |         |   |              |   |              |  |
| 5              | 12.54      | ✓                            |            |              |          |                     |          |                                | 5    |            | 125   |                      |       |         |   |              |   |              |  |
| 6              | 10.44      | ✓                            |            |              |          |                     |          |                                | 6    |            | 126   |                      |       |         |   |              |   |              |  |
| 7              | 8.54       | ✓                            |            |              |          |                     |          |                                | 7    |            | 127   |                      |       |         |   |              |   |              |  |
| 8              | 7.44       | ✓                            |            |              |          |                     |          |                                | 8    |            | 128   |                      |       |         |   |              |   |              |  |
| 9              | 6.44       | ✓                            |            |              |          |                     |          |                                | 9    |            | 129   |                      |       |         |   |              |   |              |  |
| 10             | 5.44       | ✓                            |            |              |          |                     |          |                                | 10   |            | 130   |                      |       |         |   |              |   |              |  |
| 11             | 5.44       | ✓                            |            |              |          |                     |          |                                | 11   |            | 131   |                      |       |         |   |              |   |              |  |
| 12             | 3.54       | ✓                            |            |              |          |                     |          |                                | 12   |            | 132   |                      |       |         |   |              |   |              |  |
| 13             | 2.54       | ✓                            |            |              |          |                     |          |                                | 13   |            | 133   |                      |       |         |   |              |   |              |  |
| 14             | 2.44       | ✓                            |            |              |          |                     |          |                                | 14   |            | 134   |                      |       |         |   |              |   |              |  |
| 15             | 1.75       | ✓                            |            |              |          |                     |          |                                | 15   |            | 135   |                      |       |         |   |              |   |              |  |
| 16             | 1.54       | ✓                            |            |              |          |                     |          |                                | 16   |            | 136   |                      |       |         |   |              |   |              |  |
| 17             | 1.25       | ✓                            |            |              |          |                     |          |                                | 17   |            | 137   |                      |       |         |   |              |   |              |  |
| 18             | 1.04       | ✓                            |            |              |          |                     |          |                                | 18   |            | 138   |                      |       |         |   |              |   |              |  |
| 19             | 7.5        | ✓                            |            |              |          |                     |          |                                | 19   |            | 139   |                      |       |         |   |              |   |              |  |
| 20             | 5.4        | ✓                            |            |              |          |                     |          |                                | 20   |            | 140   |                      |       |         |   |              |   |              |  |
| 21             | 3.4        | ✓                            |            |              |          |                     |          |                                | 21   |            | 141   |                      |       |         |   |              |   |              |  |
| 22             | 2.4        | ✓                            |            |              |          |                     |          |                                | 22   |            | 142   |                      |       |         |   |              |   |              |  |
| 23             | 1.4        | ✓                            |            |              |          |                     |          |                                | 23   |            | 143   |                      |       |         |   |              |   |              |  |
| 24             | 0          | ✓                            |            |              |          |                     |          |                                | 24   |            | 144   |                      |       |         |   |              |   |              |  |

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| VESSEL          |       | PROJECT & LEG                |            | DSDB I.D.          |            | STATION DESIGNATION  |          |         |
|-----------------|-------|------------------------------|------------|--------------------|------------|----------------------|----------|---------|
| R/V Kilo Moana  |       | KM0309                       |            |                    |            |                      |          |         |
| CONSC CAST #    | 38.42 | 57.53                        | DATE       |                    | TIME (GMT) |                      | WET BULB |         |
| DEG             | MIN   | DEG                          | MIN        | DAY                | MO         | YR                   | HR       | MIN     |
| 22              | 15    | 38                           | 42         | 14                 | MAY        | 03                   | 08       | 29      |
| SBE 9+          |       | JD/TIME                      |            | FLUOR S/N          |            | PAR S/N              |          | REMARKS |
| SEC COND SN     |       | JD/TIME                      |            | FLUOR S/N          |            | PAR S/N              |          | REMARKS |
| POS. TRIP DEPTH |       | CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA |            | SAMPLE BOTTLE NUMBER |          |         |
| 1               | 2400  | PRESSURE                     | PRI. TEMP. | SEC. TEMP.         | SALINITY   | SAL.                 | NUTR.    | NUTR.   |
| 2               | 2100  |                              |            |                    |            | 243                  | 145      |         |
| 3               | 1800  |                              |            |                    |            |                      | 146      |         |
| 4               | 1500  |                              |            |                    |            |                      | 147      |         |
| 5               | 1200  |                              |            |                    |            |                      | 148      |         |
| 6               | 1000  |                              |            |                    |            |                      | 149      |         |
| 7               | 850   |                              |            |                    |            |                      | 150      |         |
| 8               | 700   |                              |            |                    |            |                      | 151      |         |
| 9               | 600   |                              |            |                    |            |                      | 152      |         |
| 10              | 500   |                              |            |                    |            |                      | 153      |         |
| 11              | 400   |                              |            |                    |            |                      | 154      |         |
| 12              | 300   |                              |            |                    |            |                      | 155      |         |
| 13              | 250   |                              |            |                    |            |                      | 156      |         |
| 14              | 200   |                              |            |                    |            |                      | 157      |         |
| 15              | 175   |                              |            |                    |            |                      | 158      |         |
| 16              | 150   |                              |            |                    |            |                      | 159      |         |
| 17              | 125   |                              |            |                    |            |                      | 160      |         |
| 18              | 100   |                              |            |                    |            |                      | 161      |         |
| 19              | 75    |                              |            |                    |            |                      | 162      |         |
| 20              | 50    |                              |            |                    |            |                      | 163      |         |
| 21              | 30    |                              |            |                    |            |                      | 164      |         |
| 22              | 20    |                              |            |                    |            |                      | 165      |         |
| 23              | 10    |                              |            |                    |            |                      | 166      |         |
| 24              | 0     |                              |            |                    |            |                      | 167      |         |



| VESSEL          | PROJECT & LEG         | DSDB ID.  | STATION DESIGNATION |            |          |          |          |           |            |            |           |             |         |              |              |
|-----------------|-----------------------|-----------|---------------------|------------|----------|----------|----------|-----------|------------|------------|-----------|-------------|---------|--------------|--------------|
| R/V Kilo Moana  | KM0309                |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| CONSC CAST #    | LATITUDE              | LONGITUDE | DATE JD= 134        | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
|                 | DEG MIN               | DEG MIN   | DAY MO YR           | HR MIN     | (°C)     | (°C)     | (mb)     | *         | *          | (deg)      | (m/s)     | * * *       | * * *   | (m)          |              |
| 2235836.25 N    | 14436.44 W            | 150907.00 | 14 MAY 03           | 150907     | 14.5     | 14.5     | 993.7    | 1000      | 4          | 04         | 04        | 68          | 137     | 33           | E E W A      |
| SBE 9+          | TIMES                 | JD/TIME   | FLUOR S/N           | PAR S/N    | REMARKS  |          |          |           |            |            |           |             |         |              |              |
| SEC COND SN     |                       |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| POS. TRIP DEPTH | SAMPLE BOTTLE DATA    |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 1 2400          | SALINITY              |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 2 2100          | SAL. NUTR. CHL. NUTR. |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 3 1900          | 245 25                |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 4 1500          | 26 27                 |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 5 1200          | 28 29                 |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 6 1000          | 30 31                 |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 7 850           | 32 33                 |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 8 700           | 34 35                 |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 9 600           | 36 37                 |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 10 500          | 38 39                 |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 11 400          | 40 41                 |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 12 300          | 42 43                 |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 13 250          | 44 45                 |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 14 200          | 46 47                 |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 15 175          | 48                    |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 16 150          |                       |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 17 125          |                       |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 18 100          |                       |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 19 75           |                       |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 20 50           |                       |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 21 20           |                       |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 22 20           |                       |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 23 10           |                       |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |
| 24 0            |                       |           |                     |            |          |          |          |           |            |            |           |             |         |              |              |



3930

| VESSEL                                                                                              |            | PROJECT & LEG |            | DSDB I.D.  |            | STATION DESIGNATION |           |            |           |             |         |              |              |  |  |
|-----------------------------------------------------------------------------------------------------|------------|---------------|------------|------------|------------|---------------------|-----------|------------|-----------|-------------|---------|--------------|--------------|--|--|
| R/V Kilo Moana                                                                                      |            | KM0309        |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| CONSC CAST #                                                                                        | LATITUDE   | LONGITUDE     | DATE       | TIME       | TIME (GMT) | WET BULB            | SEA STATE | WIND DIRN. | WIND SPD. | CLOUD (amt) | WEATHER | BOTTOM DEPTH | STA. NAME/ID |  |  |
| DEG                                                                                                 | MIN        | DEG           | MIN        | DAY        | MO         | YR                  | HR        | MIN        | (°C)      | (mb)        | *       | (m/s)        |              |  |  |
| 2255                                                                                                | 83.35 N    | 14518.44 W    | 14         | 21         | 2014       | 21                  | 21        | 21         | 21        | 21          | 21      | 21           | 21           |  |  |
| SBE 9+ <input type="checkbox"/> PAR S/N <input type="checkbox"/> FLUOR S/N <input type="checkbox"/> |            |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| REMARKS: Original data file not labelled<br>ctd 24 - changed to 225 after cast completed            |            |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| POS.                                                                                                | TRIP DEPTH | PRESSURE      | PRI. TEMP. | SEC. TEMP. | SALINITY   | SAL.                | NUTR.     | CHL.       | NUTR.     |             |         |              |              |  |  |
| 1                                                                                                   | ~3900      |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 2                                                                                                   | 3500       |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 3                                                                                                   | 3000       |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 4                                                                                                   | 2500       |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 5                                                                                                   | 2000       |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 6                                                                                                   | 1750       |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 7                                                                                                   | 1500       |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 8                                                                                                   | 1250       |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 9                                                                                                   | 1000       |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 10                                                                                                  | 750        |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 11                                                                                                  | 500        |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 12                                                                                                  | 400        |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 13                                                                                                  | 300        |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 14                                                                                                  | 250        |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 15                                                                                                  | 200        |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 16                                                                                                  | 150        |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 17                                                                                                  | 125        |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 18                                                                                                  | 100        |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 19                                                                                                  | 75         |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 20                                                                                                  | 50         |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 21                                                                                                  | 30         |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 22                                                                                                  | 20         |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 23                                                                                                  | 10         |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |
| 24                                                                                                  | 0          |               |            |            |            |                     |           |            |           |             |         |              |              |  |  |

Lucas P10

| VESSEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | PROJECT & LEG                |            | DSDB I.D.  |                    | STATION DESIGNATION |            |                      |                  |                     |                    |             |      |         |                        |              |      |            |                              |            |  |                    |  |  |                      |  |  |          |            |            |          |      |       |      |       |   |      |   |  |  |  |  |   |     |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    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---|---|--|--|--|--|----|--|-----|--|--|----|---|--|--|--|--|--|----|--|-----|--|--|
| R/V Kilo Moana                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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|   |  |  |  |  |    |  |     |  |  |    |   |  |  |  |  |  |    |  |     |  |  |
| CONSC<br>CAST #                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LATITUDE   |                              | LONGITUDE  |            | DATE JD=           |                     | TIME (GMT) |                      | WET BULB<br>(°C) | WIND DIRN.<br>(deg) | WIND SPD.<br>(m/s) | CLOUD (amt) | TYPE | WEATHER | BOTTOM<br>DEPTH<br>(m) | STA. NAME/ID |      |            |                              |            |  |                    |  |  |                      |  |  |          |            |            |          |      |       |      |       |   |      |   |  |  |  |  |   |     |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |   |  |  |  |  |  |    |  |     |  |  |
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | DEG        | MIN                          | DEG        | MIN        | DAY                | MO                  | YR         | HR                   |                  |                     |                    |             |      |         |                        |              | MIN  | SEC        | SEA STATE                    | VISIBILITY |  |                    |  |  |                      |  |  |          |            |            |          |      |       |      |       |   |      |   |  |  |  |  |   |     |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    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| 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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| 23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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| SBE 9+ _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| SEC COND SN _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| <table border="1"> <thead> <tr> <th rowspan="2">POS.</th> <th rowspan="2">TRIP DEPTH</th> <th colspan="3">CTD CONVERTED MONITOR VALUES</th> <th colspan="3">SAMPLE BOTTLE DATA</th> <th colspan="3">SAMPLE BOTTLE NUMBER</th> </tr> <tr> <th>PRESSURE</th> <th>PRI. TEMP.</th> <th>SEC. TEMP.</th> <th>SALINITY</th> <th>SAL.</th> <th>NUTR.</th> <th>CHL.</th> <th>NUTR.</th> </tr> </thead> <tbody> <tr><td>1</td><td>4100</td><td>✓</td><td></td><td></td><td></td><td></td><td>1</td><td>248</td><td>97</td><td></td><td></td></tr> <tr><td>2</td><td>3500</td><td>✓</td><td></td><td></td><td></td><td></td><td>2</td><td></td><td>98</td><td></td><td></td></tr> <tr><td>3</td><td>3000</td><td>✓</td><td></td><td></td><td></td><td></td><td>3</td><td></td><td>99</td><td></td><td></td></tr> <tr><td>4</td><td>2500</td><td>✓</td><td></td><td></td><td></td><td></td><td>4</td><td></td><td>100</td><td></td><td></td></tr> <tr><td>5</td><td>2000</td><td>✓</td><td></td><td></td><td></td><td></td><td>5</td><td></td><td>101</td><td></td><td></td></tr> <tr><td>6</td><td>1750</td><td>✓</td><td></td><td></td><td></td><td></td><td>6</td><td></td><td>102</td><td></td><td></td></tr> <tr><td>7</td><td>1500</td><td>✓</td><td></td><td></td><td></td><td></td><td>7</td><td></td><td>103</td><td></td><td></td></tr> <tr><td>8</td><td>1250</td><td>✓</td><td></td><td></td><td></td><td></td><td>8</td><td></td><td>104</td><td></td><td></td></tr> <tr><td>9</td><td>1000</td><td>✓</td><td></td><td></td><td></td><td></td><td>9</td><td></td><td>105</td><td></td><td></td></tr> <tr><td>10</td><td>750</td><td>✓</td><td></td><td></td><td></td><td></td><td>10</td><td></td><td>106</td><td></td><td></td></tr> <tr><td>11</td><td>500</td><td>✓</td><td></td><td></td><td></td><td></td><td>11</td><td></td><td>107</td><td></td><td></td></tr> <tr><td>12</td><td>400</td><td>✓</td><td></td><td></td><td></td><td></td><td>12</td><td></td><td>108</td><td></td><td></td></tr> <tr><td>13</td><td>300</td><td>✓</td><td></td><td></td><td></td><td></td><td>13</td><td></td><td>109</td><td></td><td></td></tr> <tr><td>14</td><td>250</td><td>✓</td><td></td><td></td><td></td><td></td><td>14</td><td></td><td>110</td><td></td><td></td></tr> <tr><td>15</td><td>200</td><td>✓</td><td></td><td></td><td></td><td></td><td>15</td><td></td><td>111</td><td></td><td></td></tr> <tr><td>16</td><td>150</td><td>✓</td><td></td><td></td><td></td><td></td><td>16</td><td></td><td>112</td><td></td><td></td></tr> <tr><td>17</td><td>125</td><td>✓</td><td></td><td></td><td></td><td></td><td>17</td><td></td><td>113</td><td></td><td></td></tr> <tr><td>18</td><td>100</td><td>✓</td><td></td><td></td><td></td><td></td><td>18</td><td></td><td>114</td><td></td><td></td></tr> <tr><td>19</td><td>75</td><td>✓</td><td></td><td></td><td></td><td></td><td>19</td><td></td><td>115</td><td></td><td></td></tr> <tr><td>20</td><td>50</td><td>✓</td><td></td><td></td><td></td><td></td><td>20</td><td></td><td>116</td><td></td><td></td></tr> <tr><td>21</td><td>30</td><td>✓</td><td></td><td></td><td></td><td></td><td>21</td><td></td><td>117</td><td></td><td></td></tr> <tr><td>22</td><td>20</td><td>✓</td><td></td><td></td><td></td><td></td><td>22</td><td></td><td>118</td><td></td><td></td></tr> <tr><td>23</td><td>10</td><td>✓</td><td></td><td></td><td></td><td></td><td>23</td><td></td><td>119</td><td></td><td></td></tr> <tr><td>24</td><td>0</td><td></td><td></td><td></td><td></td><td></td><td>24</td><td></td><td>120</td><td></td><td></td></tr> </tbody> </table> |            |                              |            |            |                    |                     |            |                      |                  |                     |                    |             |      |         |                        |              | POS. | TRIP DEPTH | CTD CONVERTED MONITOR VALUES |            |  | SAMPLE BOTTLE DATA |  |  | SAMPLE BOTTLE NUMBER |  |  | PRESSURE | PRI. 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TEMP. | SALINITY           | SAL.                | NUTR.      | CHL.                 | NUTR.            |                     |                    |             |      |         |                        |              |      |            |                              |            |  |                    |  |  |                      |  |  |          |            |            |          |      |       |      |       |   |      |   |  |  |  |  |   |     |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |   |  |  |  |  |  |    |  |     |  |  |
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 30         | ✓                            |            |            |                    |                     | 21         |                      | 117              |                     |                    |             |      |         |                        |              |      |            |                              |            |  |                    |  |  |                      |  |  |          |            |            |          |      |       |      |       |   |      |   |  |  |  |  |   |     |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |   |  |  |  |  |  |    |  |     |  |  |
| 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 20         | ✓                            |            |            |                    |                     | 22         |                      | 118              |                     |                    |             |      |         |                        |              |      |            |                              |            |  |                    |  |  |                      |  |  |          |            |            |          |      |       |      |       |   |      |   |  |  |  |  |   |     |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |   |  |  |  |  |  |    |  |     |  |  |
| 23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 10         | ✓                            |            |            |                    |                     | 23         |                      | 119              |                     |                    |             |      |         |                        |              |      |            |                              |            |  |                    |  |  |                      |  |  |          |            |            |          |      |       |      |       |   |      |   |  |  |  |  |   |     |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |   |  |  |  |  |  |    |  |     |  |  |
| 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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|     |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |    |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |   |      |   |  |  |  |  |   |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |     |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    |   |  |  |  |  |    |  |     |  |  |    |    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Dnfter- 37504 released after cast

[illegible]

| VESSEL<br>R/V Kilo Moana     |            | PROJECT & LEG<br>KM0309 |           |            |             | DSD8 I.D.  |            |          |                  | STATION DESIGNATION |           |            |                     |                    |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|------------|-------------------------|-----------|------------|-------------|------------|------------|----------|------------------|---------------------|-----------|------------|---------------------|--------------------|-------------|---------|------------------------|--------------|--------------------|---|----|---|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| CONC<br>CAST #               | LATITUDE   |                         | LONGITUDE |            | DATE JD-135 |            | TIME (GMT) |          | WET BULB<br>(°C) | PRESSURE<br>(mb)    | SEA STATE | VISIBILITY | WIND DIRN.<br>(deg) | WIND SPD.<br>(m/s) | CLOUD (amt) | WEATHER | BOTTOM<br>DEPTH<br>(m) | STA. NAME/ID |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
|                              | DEG        | MIN                     | DEG       | MIN        | DAY         | MO         | YR         | HR       |                  |                     |           |            |                     |                    |             |         |                        |              | MIN                |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 228                          | 58         | 38.46                   | N         | 146        | 16.08       | W          | 15         | M        | A                | Y                   | 0         | 3          | 10                  | 39                 | 06          | 3       | 0                      | 5            | 3                  | 7 | 27 | 0 | 0                    | 3 | 6 | 8 | 1 | 4 | 6 | 5 | 4 | E | E | W | 9 |
| SBE 9+                       |            |                         |           |            |             |            |            |          |                  |                     |           |            |                     |                    |             |         |                        |              | REMARKS            |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| SEC COND SN                  |            |                         |           |            |             |            |            |          |                  |                     |           |            |                     |                    |             |         |                        |              | FLUOR S/N          |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| CTD CONVERTED MONITOR VALUES |            |                         |           |            |             |            |            |          |                  |                     |           |            |                     |                    |             |         |                        |              | SAMPLE BOTTLE DATA |   |    |   | SAMPLE BOTTLE NUMBER |   |   |   |   |   |   |   |   |   |   |   |   |
| POS.                         | TRIP DEPTH | PRESSURE                |           | PRI. TEMP. |             | SEC. TEMP. |            | SALINITY |                  | SALINITY            |           | SAL.       |                     | NUTR.              |             | CHL.    |                        | NUTR.        |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 1                            | 3400       |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 145                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 2                            | 3000       |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 146                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 3                            | 2500       |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 147                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 4                            | 2000       |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 250                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 5                            | 1750       |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 148                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 6                            | 1500       |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 149                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 7                            | 1250       |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 150                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 8                            | 1000       |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 151                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 9                            | 750        |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 152                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 10                           | 500        |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 153                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 11                           | 400        |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 154                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 12                           | 350        |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 155                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 13                           | 300        |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 156                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 14                           | 250        |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 157                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 15                           | 200        |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 158                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 16                           | 150        |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 159                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 17                           | 125        |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 160                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 18                           | 100        |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 161                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 19                           | 75         |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 162                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 20                           | 50         |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 163                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 21                           | 30         |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 164                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 22                           | 20         |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 165                |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 23                           | 10         |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 166 F              |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
| 24                           | 0          |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 167 F              |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |
|                              |            |                         |           |            |             |            |            |          |                  |                     |           |            |                     | 168 F              |             |         |                        |              |                    |   |    |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |

| VESSEL        |            | PROJECT & LEG                |                   | DSDB I.D.         |                   | STATION DESIGNATION |                   |                   |                   |                   |                   |                   |                   |                      |  |
|---------------|------------|------------------------------|-------------------|-------------------|-------------------|---------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------------------|--|
| RV Kilo Moana |            | KM0309                       |                   |                   |                   |                     |                   |                   |                   |                   |                   |                   |                   |                      |  |
| CONSC CAST #  | LATITUDE   | LONGITUDE                    | DATE              | TIME (GMT)        | DRY BULB          | WET BULB            | SEA STATE         | WIND DIRN.        | WIND SPD.         | CLOUD (amt)       | WEATHER           | BOTTOM DEPTH      | STA. NAME/ID      |                      |  |
| DEG MIN       | DEG MIN    | DEG MIN                      | DAY MO YR         | HR MIN            | (°C)              | (°C)                |                   | (deg)             | (m/s)             | *                 | *                 | (m)               |                   |                      |  |
| 2295838.49 N  | 14635.03 W | 15 M A Y 03                  | 142506.505.007372 | 142506.505.007372 | 142506.505.007372 | 142506.505.007372   | 142506.505.007372 | 142506.505.007372 | 142506.505.007372 | 142506.505.007372 | 142506.505.007372 | 142506.505.007372 | 142506.505.007372 |                      |  |
| SBE 9+        | REMARKS    |                              |                   |                   |                   |                     |                   |                   |                   |                   |                   |                   |                   |                      |  |
| SEC COND SN   | FLUOR S/N  |                              |                   |                   |                   |                     |                   |                   |                   |                   |                   |                   |                   |                      |  |
| POS.          | TRIP DEPTH | CTD CONVERTED MONITOR VALUES |                   |                   |                   |                     |                   |                   |                   |                   |                   |                   |                   |                      |  |
|               |            | PRESSURE                     | PRI. TEMP.        | SEC. TEMP.        | SALINITY          | SAMPLE BOTTLE DATA  |                   |                   |                   |                   |                   |                   |                   | SAMPLE BOTTLE NUMBER |  |
|               |            |                              |                   |                   |                   | SALINITY            | SAL.              | NUTR.             | CHL.              | NUTR.             |                   |                   |                   |                      |  |
| 1             | 3400       | /                            |                   |                   |                   |                     |                   | 1                 |                   |                   |                   |                   |                   |                      |  |
| 2             | 3000       | /                            |                   |                   |                   |                     |                   | 2                 |                   |                   |                   |                   |                   |                      |  |
| 3             | 2500       | /                            |                   |                   |                   |                     |                   | 3                 |                   |                   |                   |                   |                   |                      |  |
| 4             | 2000       | /                            |                   |                   |                   |                     |                   | 4                 |                   |                   |                   |                   |                   |                      |  |
| 5             | 1760       | /                            |                   |                   |                   |                     |                   | 5                 |                   |                   |                   |                   |                   |                      |  |
| 6             | 1500       | /                            |                   |                   |                   |                     |                   | 6                 | 251               |                   |                   |                   |                   |                      |  |
| 7             | 1250       | /                            |                   |                   |                   |                     |                   | 7                 |                   |                   |                   |                   |                   |                      |  |
| 8             | 1000       | /                            |                   |                   |                   |                     |                   | 8                 |                   |                   |                   |                   |                   |                      |  |
| 9             | 750        | /                            |                   |                   |                   |                     |                   | 9                 |                   |                   |                   |                   |                   |                      |  |
| 10            | 500        | /                            |                   |                   |                   |                     |                   | 10                |                   |                   |                   |                   |                   |                      |  |
| 11            | 400        | /                            |                   |                   |                   |                     |                   | 11                |                   |                   |                   |                   |                   |                      |  |
| 12            | 350        | 1142                         |                   |                   |                   |                     |                   | 12                |                   |                   |                   |                   |                   |                      |  |
| 13            | 300        | /                            |                   |                   |                   |                     |                   | 13                |                   |                   |                   |                   |                   |                      |  |
| 14            | 250        | /                            |                   |                   |                   |                     |                   | 14                |                   |                   |                   |                   |                   |                      |  |
| 15            | 200        | /                            |                   |                   |                   |                     |                   | 15                |                   |                   |                   |                   |                   |                      |  |
| 16            | 150        | /                            |                   |                   |                   |                     |                   | 16                |                   |                   |                   |                   |                   |                      |  |
| 17            | 125        | /                            |                   |                   |                   |                     |                   | 17                |                   |                   |                   |                   |                   |                      |  |
| 18            | 100        | /                            |                   |                   |                   |                     |                   | 18                |                   |                   |                   |                   |                   |                      |  |
| 19            | 75         | /                            |                   |                   |                   |                     |                   | 19                |                   |                   |                   |                   |                   |                      |  |
| 20            | 50         | /                            |                   |                   |                   |                     |                   | 20                |                   |                   |                   |                   |                   |                      |  |
| 21            | 30         | /                            |                   |                   |                   |                     |                   | 21                |                   |                   |                   |                   |                   |                      |  |
| 22            | 20         | /                            |                   |                   |                   |                     |                   | 22                |                   |                   |                   |                   |                   |                      |  |
| 23            | 10         | /                            |                   |                   |                   |                     |                   | 23                |                   |                   |                   |                   |                   |                      |  |
| 24            | 0          | /                            |                   |                   |                   |                     |                   | 24                |                   |                   |                   |                   |                   |                      |  |

Everyday aboard - Lugolo #11

There was approximately 150m difference between  
 Echo sounder and actual bottom. CTD/Rosette  
 struck bottom and heaved in 50-60m of  
 wire before CTD lifted from the bottom. Uncertain about Niskin  
 bottle trip time at depth. Check notes.

log in water.

| VESSEL<br>R/V Kilo Moana |            | PROJECT & LEG<br>KMO309 |     | STATION DESIGNATION<br>400 |     | DSDB I.D.    |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
|--------------------------|------------|-------------------------|-----|----------------------------|-----|--------------|----|------------|----|------------------------------|------|------------------------------|----|------------|-------|------------|----|------------|----|-------------|----|----------|----|-----------------|----|--------------|----|-------|--|
| CONSC<br>CAST #          |            | LATITUDE                |     | LONGITUDE                  |     | DATE JD= 135 |    | TIME (GMT) |    | WET BULB                     |      | PRESSURE                     |    | SEA STATE  |       | WIND DIRN. |    | WIND SPD.  |    | CLOUD (amt) |    | WEATHER  |    | BOTTOM<br>DEPTH |    | STA. NAME/ID |    |       |  |
| DEG                      | MIN        | DEG                     | MIN | DEG                        | MIN | DAY          | MO | YR         | HR | MIN                          | (°C) | (mb)                         | *  | *          | (m/s) | *          | *  | *          | *  | *           | *  | (m)      |    |                 |    |              |    |       |  |
| 23                       | 5          | 8                       | 38  | 14                         | 55  | 15           | M  | A          | Y  | 03                           | 18   | 20                           | 08 | 00         | 00    | 00         | 00 | 00         | 00 | 00          | 00 | 00       | 00 | 00              | 00 | 00           | 00 |       |  |
| SBE 9+                   |            | TIMES                   |     | JD/TIME                    |     | PAR S/N      |    | FLUOR S/N  |    | CTD CONVERTED MONITOR VALUES |      | PRESSURE                     |    | PRI. TEMP. |       | SEC. TEMP. |    | SALINITY   |    | SALINITY    |    | SAL.     |    | NUTR.           |    | NUTR.        |    |       |  |
| POS.                     | TRIP DEPTH | SBE 9+                  |     | TIMES                      |     | JD/TIME      |    | PAR S/N    |    | FLUOR S/N                    |      | CTD CONVERTED MONITOR VALUES |    | PRESSURE   |       | PRI. TEMP. |    | SEC. TEMP. |    | SALINITY    |    | SALINITY |    | SAL.            |    | NUTR.        |    | NUTR. |  |
| 1                        | Bottom     |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 2                        | 2100       |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 3                        | 1800       |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 4                        | 1500       |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 5                        | 1200       |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 6                        | 1000       |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 7                        | 950        |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 8                        | 700        |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 9                        | 600        |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 10                       | 500        |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 11                       | 400        |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 12                       | 300        |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 13                       | 250        |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 14                       | 200        |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 15                       | 175        |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 16                       | 150        |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 17                       | 125        |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 18                       | 100        |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 19                       | 75         |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 20                       | 50         |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 21                       | 30         |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 22                       | 20         |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 23                       | 10         |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |
| 24                       | 0          |                         |     |                            |     |              |    |            |    |                              |      |                              |    |            |       |            |    |            |    |             |    |          |    |                 |    |              |    |       |  |

REMARKS  
 2333 m

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| VESSEL<br>R/V Kilo Moana |     | PROJECT & LEG<br>KM0309 |     | DSDB I.D.                    |     | STATION DESIGNATION |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
|--------------------------|-----|-------------------------|-----|------------------------------|-----|---------------------|----|----------|----|------------|-----|----------|------|----------|---|-----------|---|------------|---|------------|---|-----------|----|-------------|----|----------|----|----------|----|-------------------------|----|--------------|----|----|----|----|----|---|
| CONSC<br>CAST #          |     | LATITUDE                |     | LONGITUDE                    |     | DATE                |    | TIME     |    | TIME (GMT) |     | WET BULB |      | PRESSURE |   | SEA STATE |   | VISIBILITY |   | WIND DIRN. |   | WIND SPD. |    | CLOUD (amt) |    | TYPE     |    | WEATHER  |    | 2141<br>BOTTOM<br>DEPTH |    | STA. NAME/ID |    |    |    |    |    |   |
| DEG                      | MIN | DEG                     | MIN | DEG                          | MIN | DAY                 | MO | YR       | HR | MIN        | SEC | (°C)     | (mb) | 1        | 2 | 3         | 4 | 5          | 6 | 7          | 8 | 9         | 10 | 11          | 12 | 13       | 14 | 15       | 16 | 17                      | 18 | 19           | 20 | 21 | 22 | 23 | 24 |   |
| 23                       | 25  | 83                      | 8   | 14                           | 73  | 6                   | 16 | MA       | Y  | 03         | 00  | 11       | 2    | 3        | 8 | 2         | 3 | 2          | 2 | 2          | 2 | 2         | 2  | 2           | 2  | 2        | 2  | 2        | 2  | 2                       | 2  | 2            | 2  | 2  | 2  | 2  | 2  | 2 |
| SBE 9+                   |     | 38.51                   |     | 35.98                        |     | DATE                |    | TIME     |    | TIME (GMT) |     | WET BULB |      | PRESSURE |   | SEA STATE |   | VISIBILITY |   | WIND DIRN. |   | WIND SPD. |    | CLOUD (amt) |    | TYPE     |    | WEATHER  |    | 2141<br>BOTTOM<br>DEPTH |    | STA. NAME/ID |    |    |    |    |    |   |
| SEC COND SN              |     | LATITUDE                |     | LONGITUDE                    |     | DATE                |    | TIME     |    | TIME (GMT) |     | WET BULB |      | PRESSURE |   | SEA STATE |   | VISIBILITY |   | WIND DIRN. |   | WIND SPD. |    | CLOUD (amt) |    | TYPE     |    | WEATHER  |    | 2141<br>BOTTOM<br>DEPTH |    | STA. NAME/ID |    |    |    |    |    |   |
| TIMES                    |     | PAR S/N                 |     | CTD CONVERTED MONITOR VALUES |     | FLUOR S/N           |    | SALINITY |    | SALINITY   |     | SALINITY |      | SALINITY |   | SALINITY  |   | SALINITY   |   | SALINITY   |   | SALINITY  |    | SALINITY    |    | SALINITY |    | SALINITY |    | SALINITY                |    | SALINITY     |    |    |    |    |    |   |
| TRIP DEPTH               |     | PRESSURE                |     | PRI. TEMP.                   |     | SEC. TEMP.          |    | SALINITY |    | SALINITY   |     | SALINITY |      | SALINITY |   | SALINITY  |   | SALINITY   |   | SALINITY   |   | SALINITY  |    | SALINITY    |    | SALINITY |    | SALINITY |    | SALINITY                |    | SALINITY     |    |    |    |    |    |   |
| 1                        | 24  | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 2                        | 17  | 5                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 3                        | 15  | 6                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 4                        | 12  | 5                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 5                        | 14  | 6                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 6                        | 9   | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 7                        | 8   | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 8                        | 7   | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 9                        | 6   | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 10                       | 5   | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 11                       | 4   | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 12                       | 3   | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 13                       | 2   | 5                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 14                       | 2   | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 15                       | 1   | 7                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 16                       | 1   | 5                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 17                       | 1   | 2                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 18                       | 1   | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 19                       | 7   | 5                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 20                       | 5   | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 21                       | 3   | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 22                       | 2   | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 23                       | 1   | 4                       | ✓   |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |
| 24                       | 4   |                         |     |                              |     |                     |    |          |    |            |     |          |      |          |   |           |   |            |   |            |   |           |    |             |    |          |    |          |    |                         |    |              |    |    |    |    |    |   |

Tellys again! Very little in bongomets

D<sub>n</sub> Ester 37497 / 58 37.7 N 147 56.1 W 0522 16 May 2013

[illegible]

F. 00 10 20



| VESSEL<br>R/V Kilo Moana |     | PROJECT & LEG<br>K40309      |     | DSD8 I.D.          |    | STATION DESIGNATION  |    |
|--------------------------|-----|------------------------------|-----|--------------------|----|----------------------|----|
| LATITUDE                 |     | LONGITUDE                    |     | DATE               |    | TIME (GMT)           |    |
| DEG                      | MIN | DEG                          | MIN | DAY                | MO | YR                   | HR |
| 23                       | 58  | 148                          | 27  | 16                 | MA | 03                   | 08 |
| CONSC CAST #             |     | WET BULB                     |     | DRY BULB           |    | WIND DIRN.           |    |
| 235                      |     | 21.6                         |     | 21.6               |    | 270                  |    |
| SBE 9+                   |     | PRESSURE                     |     | SEA STATE          |    | WIND SPD.            |    |
| 235                      |     | 21.6                         |     | 3                  |    | 10                   |    |
| SEC COND SN              |     | FLUOR S/N                    |     | REMARKS            |    | 250 m                |    |
| POS.                     |     | CTD CONVERTED MONITOR VALUES |     | SAMPLE BOTTLE DATA |    | SAMPLE BOTTLE NUMBER |    |
| TRIP DEPTH               |     | PRI. TEMP.                   |     | SEC. TEMP.         |    | SAL.                 |    |
| 1 Bottom                 |     |                              |     |                    |    | 253                  |    |
| 2 225                    |     |                              |     |                    |    | 136                  |    |
| 3 200                    |     |                              |     |                    |    | 137                  |    |
| 4 175                    |     |                              |     |                    |    | 138                  |    |
| 5 150                    |     |                              |     |                    |    | 139                  |    |
| 6 125                    |     |                              |     |                    |    | 140                  |    |
| 7 100                    |     |                              |     |                    |    | 141                  |    |
| 8 75                     |     |                              |     |                    |    | 142                  |    |
| 9 50                     |     |                              |     |                    |    | 143                  |    |
| 10 30                    |     |                              |     |                    |    | 144                  |    |
| 11 20                    |     |                              |     |                    |    | 145                  |    |
| 12 10                    |     |                              |     |                    |    | 146                  |    |
| 13 0                     |     |                              |     |                    |    | 147                  |    |
| 14                       |     |                              |     |                    |    | 148                  |    |
| 15                       |     |                              |     |                    |    |                      |    |
| 16                       |     |                              |     |                    |    |                      |    |
| 17                       |     |                              |     |                    |    |                      |    |
| 18                       |     |                              |     |                    |    |                      |    |
| 19                       |     |                              |     |                    |    |                      |    |
| 20                       |     |                              |     |                    |    |                      |    |
| 21                       |     |                              |     |                    |    |                      |    |
| 22                       |     |                              |     |                    |    |                      |    |
| 23                       |     |                              |     |                    |    |                      |    |
| 24                       |     |                              |     |                    |    |                      |    |

| VESSEL          |          | PROJECT & LEG                |           |            |      | STATION DESCRIPTION |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|----------|------------------------------|-----------|------------|------|---------------------|------------|------------------|----------|------------------|----------|----------|-----------|------|-----------|-------|-----------|------|-------------|--------------|---------|-----|--------------|----|--------------|---|---|---|---|---|---|---|---|---|---|---|
| R/V Kilo Moana  |          | KM0305b                      |           |            |      | DSDB I.D.           |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| CONSC CAST #    | LATITUDE |                              | LONGITUDE |            | DATE |                     | TIME (GMT) |                  | WET BULB |                  | PRESSURE |          | SEA STATE |      | WIND DIRN |       | WIND SPD. |      | CLOUD (amt) |              | WEATHER |     | BOTTOM DEPTH |    | STA. NAME/ID |   |   |   |   |   |   |   |   |   |   |   |
|                 | DEG      | MIN                          | SEC       | DEG        | MIN  | SEC                 | DAY        | MO               | YR       | HR               | MIN      | SEC      | (°C)      | (mb) | *         | (deg) | (m/s)     | *    | *           | *            | *       | (m) |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| 236             | 58       | 36                           | .94       | N          | 148  | 30                  | .11        | W                | 19       | M                | A        | Y        | 0         | 3    | 09        | 22    | 08        | .3   | 06          | .2           | 16      | 38  | 27           | 51 | 4            | X | 0 | 0 | 2 | 2 | 9 | E | E | N | 1 | 7 |
| SBE 9+          |          | TIMES                        |           | JD/TIME    |      | DATA LOCATION       |            | Tape/Diskette ID |          | File Name/Header |          | REMARKS  |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| PRESS SN        |          | DATA ON                      |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| PRI TEMP SN     |          | START DOWN                   |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| SEC TEMP SN     |          | AT DEPTH                     |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| PRI COND SN     |          | AT SURFACE                   |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| SEC COND SN     |          | PAR S/N                      |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| POS. TRIP DEPTH |          | FLUOR S/N                    |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
|                 |          | CTD CONVERTED MONITOR VALUES |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
|                 |          | PRESSURE                     |           | PRI. TEMP. |      | SEC. TEMP.          |            | SALINITY         |          | SALINITY         |          | SALINITY |           | SAL. |           | NUTR. |           | CHL. |             | WHIT'S NUTR. |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| 1               | Bottom   |                              |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| 2               | 200      |                              |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| 3               | 175      |                              |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| 4               | 150      |                              |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| 5               | 125      |                              |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| 6               | 100      |                              |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| 7               | 75       |                              |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| 8               | 50       |                              |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| 9               | 30       |                              |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| 10              | 20       |                              |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| 11              | 10       |                              |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |
| 12              | 0        |                              |           |            |      |                     |            |                  |          |                  |          |          |           |      |           |       |           |      |             |              |         |     |              |    |              |   |   |   |   |   |   |   |   |   |   |   |

☐ Cleaned air bleed valve  
MAX. DEPTH = 225 m

|                          |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
|--------------------------|--|--------------------------|--|--|--|-----------|--|--|--|---------------------|--|--|--|------------------|--|--|--|------------------|--|--|--|----------|--|--|--|-----------|--|--|--|------------|--|--|--|-----------|--|--|--|---------|--|--|--|--------------|--|--|--|--------------|--|--|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KMD305b |  |  |  | DSDB I.D. |  |  |  | STATION DESIGNATION |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| CONSC<br>CAST #          |  | LATITUDE                 |  |  |  | LONGITUDE |  |  |  | DATE JD- 136        |  |  |  | TIME (GMT)       |  |  |  | WET BULB         |  |  |  | PRESSURE |  |  |  | SEA STATE |  |  |  | WIND DIRN. |  |  |  | WIND SPD. |  |  |  | WEATHER |  |  |  | BOTTOM DEPTH |  |  |  | STA. NAME/ID |  |  |  |
|                          |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| 2375036.77               |  | N 148.34                 |  |  |  | W 100.34  |  |  |  | 100308.205          |  |  |  | 1738280          |  |  |  | 14               |  |  |  | XX00193  |  |  |  | EEW118    |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| SBE 9+                   |  | TIMES                    |  |  |  | JD/TIME   |  |  |  | DATA LOCATION       |  |  |  | Tape/Diskette ID |  |  |  | File Name/Header |  |  |  | REMARKS  |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| PRESS SN                 |  | DATA ON                  |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| PRI TEMP SN              |  | START DOWN               |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| SEC TEMP SN              |  | AT DEPTH                 |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| PRI COND SN              |  | AT SURFACE               |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| SEC COND SN              |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
|                          |  | PAR S/N                  |  |  |  | FLUOR S/N |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| POS. TRIP DEPTH          |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| 1 Bottom                 |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| 2 150                    |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| 3 125                    |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| 4 100                    |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| 5 75                     |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| 6 50                     |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| 7 40                     |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| 8 30                     |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| 9 20                     |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| 10 10                    |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| 11 0                     |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |
| 12                       |  |                          |  |  |  |           |  |  |  |                     |  |  |  |                  |  |  |  |                  |  |  |  |          |  |  |  |           |  |  |  |            |  |  |  |           |  |  |  |         |  |  |  |              |  |  |  |              |  |  |  |

| VESSEL          |            | PROJECT & LEG                |            | DSDB I.D.  |                  | STATION DESIGNATION                              |                      |
|-----------------|------------|------------------------------|------------|------------|------------------|--------------------------------------------------|----------------------|
| R/V Kilo Moana  |            | KM0305b                      |            |            |                  |                                                  |                      |
| CONSC CAST #    | LATITUDE   | LONGITUDE                    | DATE       | TIME (GMT) | DRY BULB         | WET BULB                                         | SEA STATE            |
|                 | DEG MIN    | DEG MIN                      | DAY MO YR  | HR MIN     | (°C)             | (°C)                                             | WIND DIRN.           |
| 2385036         | 14 05 2    | 14 05 2                      | 16 MAY 03  | 11 43 07   | 50.6             | 50.6                                             | 21                   |
| SBE 9+          | TIMES      |                              | JD/TIME    |            | DATA LOCATION    |                                                  |                      |
| PRESS SN        | DATA ON    |                              |            |            | File Name/Header |                                                  |                      |
| PRI TEMP SN     | START DOWN |                              |            |            | Tape/Diskette ID |                                                  |                      |
| SEC TEMP SN     | AT DEPTH   |                              |            |            |                  |                                                  |                      |
| PRI COND SN     | AT SURFACE |                              |            |            |                  |                                                  |                      |
| SEC COND SN     |            |                              |            |            |                  |                                                  |                      |
|                 |            |                              |            | FLUOR S/N  |                  | MAX. DEPTH = 15 m                                |                      |
|                 |            |                              |            | PAR S/N    |                  | Cleared air bleed valve <input type="checkbox"/> |                      |
| POS. TRIP DEPTH |            | CTD CONVERTED MONITOR VALUES |            |            |                  |                                                  |                      |
|                 |            | PRESSURE                     | PRI. TEMP. | SEC. TEMP. | SALINITY         | SALINITY                                         | SAMPLE BOTTLE DATA   |
| 1               | Bottom     |                              |            |            |                  |                                                  | SAMPLE BOTTLE NUMBER |
| 2               | 100        |                              |            |            |                  |                                                  |                      |
| 3               | 75         |                              |            |            |                  |                                                  |                      |
| 4               | 50         |                              |            |            |                  |                                                  |                      |
| 5               | 40         |                              |            |            |                  |                                                  |                      |
| 6               | 30         |                              |            |            |                  |                                                  |                      |
| 7               | 20         |                              |            |            |                  |                                                  |                      |
| 8               | 10         |                              |            |            |                  |                                                  |                      |
| 9               | 0          |                              |            |            |                  |                                                  |                      |
| 10              |            |                              |            |            |                  |                                                  |                      |
| 11              |            |                              |            |            |                  |                                                  |                      |
| 12              |            |                              |            |            |                  |                                                  |                      |

| VESSEL          |       | PROJECT & LEG |     | DSDB ID.         |     | STATION DESIGNATION |      |
|-----------------|-------|---------------|-----|------------------|-----|---------------------|------|
| R/V Kilo Moana  |       | KM0305b       |     |                  |     |                     |      |
| CONSC CAST #    | 30991 | DATE ID       |     | TIME (GMT)       |     | WIND DIRL.          |      |
| DEG MIN         | 24.64 | DAY           | MO  | HR               | MIN | DIRL.               | SPD. |
| 152             | 24.64 | 16            | MAY | 22               | 46  | 24                  | 19   |
| 39              | 24.64 | 16            | MAY | 22               | 46  | 24                  | 19   |
| 9               | 24.64 | 16            | MAY | 22               | 46  | 24                  | 19   |
| 4               | 24.64 | 16            | MAY | 22               | 46  | 24                  | 19   |
| 2               | 24.64 | 16            | MAY | 22               | 46  | 24                  | 19   |
| 1               | 24.64 | 16            | MAY | 22               | 46  | 24                  | 19   |
| SBE 9+          |       | JD/TIME       |     | DATA LOCATION    |     | REMARKS             |      |
| PRESS SN        |       | DATA ON       |     | File Name/Header |     |                     |      |
| PRI TEMP SN     |       | START DOWN    |     |                  |     |                     |      |
| SEC TEMP SN     |       | AT DEPTH      |     |                  |     |                     |      |
| PRI COND SN     |       | AT SURFACE    |     |                  |     |                     |      |
| SEC COND SN     |       |               |     |                  |     |                     |      |
| POS. TRIP DEPTH |       | PAR S/N       |     | FLUOR S/N        |     | MAX. DEPTH = m      |      |
| 1 bottom        |       |               |     |                  |     |                     |      |
| 2 60            |       |               |     |                  |     |                     |      |
| 3 40            |       |               |     |                  |     |                     |      |
| 4 30            |       |               |     |                  |     |                     |      |
| 5 20            |       |               |     |                  |     |                     |      |
| 6 10            |       |               |     |                  |     |                     |      |
| 7 0             |       |               |     |                  |     |                     |      |
| 8               |       |               |     |                  |     |                     |      |
| 9               |       |               |     |                  |     |                     |      |
| 10              |       |               |     |                  |     |                     |      |
| 11              |       |               |     |                  |     |                     |      |
| 12              |       |               |     |                  |     |                     |      |

| VESSEL<br>R/V Kilo Moana |     | PROJECT & LEG<br>KM0305b |     | DSDB ID.  |     | STATION DESIGNATION |    |            |    |          |      |          |      |          |       |           |      |            |   |           |   |             |   |         |   |              |  |              |  |
|--------------------------|-----|--------------------------|-----|-----------|-----|---------------------|----|------------|----|----------|------|----------|------|----------|-------|-----------|------|------------|---|-----------|---|-------------|---|---------|---|--------------|--|--------------|--|
| CONSC<br>CAST #          |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| DEG                      | MIN | DEG                      | MIN | DEG       | MIN | DAY                 | MO | YR         | HR | MIN      | (°C) | (°C)     | (mb) | (m/s)    | (deg) | (m/s)     | *    | *          | * | *         | * | *           | * | (m)     |   |              |  |              |  |
| 42.23                    |     | 23.71                    |     | 15        | 22  | 16                  | M  | A          | Y  | 03       | 22   | 52       | 8.4  | 5.2      | 23.3  | 8         | 2    | 5          | 3 | 1         | 6 | 18          | 1 | 157     |   |              |  |              |  |
| 24                       | 058 | 4                        | 2   | 1         | N   | 15                  | 22 | 16         | M  | A        | Y    | 03       | 22   | 52       | 8.4   | 5.2       | 23.3 | 8          | 2 | 5         | 3 | 1           | 6 | 18      | 1 | 157          |  |              |  |
| SBE 9+                   |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| PRESS SN                 |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| PRI TEMP SN              |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| SEC TEMP SN              |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| PRI COND SN              |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| SEC COND SN              |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| TRIP DEPTH               |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| POS.                     |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 1                        |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 2                        |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 3                        |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 4                        |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 5                        |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 6                        |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 7                        |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 8                        |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 9                        |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 10                       |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 11                       |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      | PRESSURE |       | SEA STATE |      | WIND DIRLN |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 12                       |     | LATITUDE                 |     | LONGITUDE |     | DATE_ID-            |    | TIME (GMT) |    | DRY BULB |      | WET BULB |      |          |       |           |      |            |   |           |   |             |   |         |   |              |  |              |  |



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| VESSEL<br>R/V Kilo Moana |  |  |  |  |  |  |  |  |  | PROJECT & LEG<br>KN0305b     |  |  |  |  |  |  |  |  |  | STATION DESIGNATION |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
|--------------------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|----------|--|--|--|--|--|--|--|--|--|------|--|--|--|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|--|--|------|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|
| CONSC CAST #             |  |  |  |  |  |  |  |  |  | DATE JD=                     |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| LATITUDE                 |  |  |  |  |  |  |  |  |  | LONGITUDE                    |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| DEG MIN                  |  |  |  |  |  |  |  |  |  | DEG MIN                      |  |  |  |  |  |  |  |  |  | HR MIN              |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 58.98                    |  |  |  |  |  |  |  |  |  | 17.98                        |  |  |  |  |  |  |  |  |  | 0314                |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 2445858.98 N             |  |  |  |  |  |  |  |  |  | 15218.42 W                   |  |  |  |  |  |  |  |  |  | 0318                |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| SBE 9+                   |  |  |  |  |  |  |  |  |  | JD/TIME                      |  |  |  |  |  |  |  |  |  | Tape/Diskette ID    |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| PRESS SN                 |  |  |  |  |  |  |  |  |  | DATA ON                      |  |  |  |  |  |  |  |  |  | File Name/Header    |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN              |  |  |  |  |  |  |  |  |  | START DOWN                   |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN              |  |  |  |  |  |  |  |  |  | AT DEPTH                     |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| PRI COND SN              |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| SEC COND SN              |  |  |  |  |  |  |  |  |  | PAR S/N                      |  |  |  |  |  |  |  |  |  | FLUOR S/N           |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| POS. TRIP DEPTH          |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | SAMPLE BOTTLE DATA  |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| PRESSURE                 |  |  |  |  |  |  |  |  |  | PRI. TEMP.                   |  |  |  |  |  |  |  |  |  | SEC. TEMP.          |  |  |  |  |  |  |  |  |  | SALINITY |  |  |  |  |  |  |  |  |  | SAL. |  |  |  |  |  |  |  |  |  | NUTR. |  |  |  |  |  |  |  |  |  | CHL. |  |  |  |  |  |  |  |  |  | WHIT'S NUTR. |  |  |  |  |  |  |  |  |  |
| 1 60.1                   |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  | 26.1 |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 2 50.2                   |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  | 62    |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 3 30.3                   |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  | 63    |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 4 20.4                   |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  | 64    |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 5 10.13                  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  | 65    |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 6 0.14                   |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  | 66    |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  | 67    |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |

Cleaned air bleed valve

MAX. DEPTH = m

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| VESSEL<br>R/V Kilo Moana |  |  |  |  |  |  |  |  |  | PROJECT & LEG<br>KM0305b     |  |  |  |  |  |  |  |  |  | STATION DESIGNATION  |  |  |  |  |  |  |  |  |  |
|--------------------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|----------------------|--|--|--|--|--|--|--|--|--|
|                          |  |  |  |  |  |  |  |  |  | DSDB ID.                     |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |
| CONSC CAST #             |  |  |  |  |  |  |  |  |  | 12.46                        |  |  |  |  |  |  |  |  |  | 7442                 |  |  |  |  |  |  |  |  |  |
| LATITUDE                 |  |  |  |  |  |  |  |  |  | LONGITUDE                    |  |  |  |  |  |  |  |  |  | TIME (GMT)           |  |  |  |  |  |  |  |  |  |
| DEG MIN                  |  |  |  |  |  |  |  |  |  | DEG MIN                      |  |  |  |  |  |  |  |  |  | HR MIN               |  |  |  |  |  |  |  |  |  |
| 24 59 03                 |  |  |  |  |  |  |  |  |  | 15 21 2                      |  |  |  |  |  |  |  |  |  | 04 45 2              |  |  |  |  |  |  |  |  |  |
| SBE 9+                   |  |  |  |  |  |  |  |  |  | JD/TIME                      |  |  |  |  |  |  |  |  |  | Tape/Diskette ID     |  |  |  |  |  |  |  |  |  |
| TIMES                    |  |  |  |  |  |  |  |  |  | DATA LOCATION                |  |  |  |  |  |  |  |  |  | REMARKS              |  |  |  |  |  |  |  |  |  |
| DATA ON                  |  |  |  |  |  |  |  |  |  | File Name/Header             |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |
| START DOWN               |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |
| AT DEPTH                 |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |
| AT SURFACE               |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |
| SEC COND SN              |  |  |  |  |  |  |  |  |  | PAR S/N                      |  |  |  |  |  |  |  |  |  | FLUOR S/N            |  |  |  |  |  |  |  |  |  |
| TRIP DEPTH               |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | SAMPLE BOTTLE DATA   |  |  |  |  |  |  |  |  |  |
| POS.                     |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SAMPLE BOTTLE NUMBER |  |  |  |  |  |  |  |  |  |
| PRESSURE                 |  |  |  |  |  |  |  |  |  | PRI. TEMP.                   |  |  |  |  |  |  |  |  |  | SEC. TEMP.           |  |  |  |  |  |  |  |  |  |
| 1 60.1                   |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY             |  |  |  |  |  |  |  |  |  |
| 2 100                    |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY             |  |  |  |  |  |  |  |  |  |
| 3 75                     |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY             |  |  |  |  |  |  |  |  |  |
| 4 50                     |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY             |  |  |  |  |  |  |  |  |  |
| 5 30                     |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY             |  |  |  |  |  |  |  |  |  |
| 6 20                     |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY             |  |  |  |  |  |  |  |  |  |
| 7 10                     |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY             |  |  |  |  |  |  |  |  |  |
| 8 0                      |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY             |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY             |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY             |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY             |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | SALINITY             |  |  |  |  |  |  |  |  |  |

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| VESSEL          |        | PROJECT & LEG                |            | DSD8 I.D.          |          | STATION DESIGNATION  |        |
|-----------------|--------|------------------------------|------------|--------------------|----------|----------------------|--------|
| R/V Kilo Moana  |        | KM0305b                      |            |                    |          |                      |        |
| CONSC CAST #    | 48.38  | 48.65                        |            | DATE ID=           |          | TIME (GMT)           |        |
| DEG MIN         | 152.34 | DEG MIN                      | 152.34     | DAY                | MO       | YR                   | HR MIN |
| 248             | 59     | 48                           | 34         | 17                 | W        | 17                   | 06     |
| LATITUDE        |        | LONGITUDE                    |            | DATE               |          | TIME                 |        |
| 48.38           |        | 48.65                        |            | 17                 |          | 06                   |        |
| SBE 9+          |        | DATA ON                      |            | Tape/Diskette ID   |          | File Name/Header     |        |
| PRESS SN        |        | START DOWN                   |            |                    |          |                      |        |
| PRI TEMP SN     |        | AT DEPTH                     |            |                    |          |                      |        |
| SEC TEMP SN     |        | AT SURFACE                   |            |                    |          |                      |        |
| PRI COND SN     |        | PAR S/N                      |            | FLUOR S/N          |          |                      |        |
| SEC COND SN     |        | PAR S/N                      |            | FLUOR S/N          |          |                      |        |
| POS. TRIP DEPTH |        | CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA |          | SAMPLE BOTTLE NUMBER |        |
| 1               | bottom | PRESSURE                     | PRI. TEMP. | SEC. TEMP.         | SALINITY | SAL                  | NUTR.  |
| 2               | 125    |                              |            |                    |          | 93                   |        |
| 3               | 100    |                              |            |                    |          | 94                   |        |
| 4               | 75     |                              |            |                    |          | 95                   |        |
| 5               | 50     |                              |            |                    |          | 96                   |        |
| 6               | 30     |                              |            |                    |          | 97                   |        |
| 7               | 20     |                              |            |                    |          | 98                   |        |
| 8               | 10     |                              |            |                    |          | 99                   |        |
| 9               | 0      |                              |            |                    |          | 100                  |        |
| 10              |        |                              |            |                    |          | 101                  |        |
| 11              |        |                              |            |                    |          |                      |        |
| 12              |        |                              |            |                    |          |                      |        |



| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0305b     |  | DSDB ID.<br>KM0309 |  | STATION DESIGNATION          |  |
|--------------------------|--|------------------------------|--|--------------------|--|------------------------------|--|
| CONSC CAST #             |  | LATITUDE                     |  | LONGITUDE          |  | DATE                         |  |
| DEG MIN                  |  | DEG MIN                      |  | DAY MO YR          |  | TIME (GMT)                   |  |
| 25 59 13                 |  | 15 20 2                      |  | 17 W 17 M A Y 03   |  | 08 10 06                     |  |
| SBE 9+                   |  | TIMES                        |  | JD/TIME            |  | DATA LOCATION                |  |
| PRESS SN                 |  | DATA ON                      |  | Tape/Diskette ID   |  | File Name/Header             |  |
| PRI TEMP SN              |  | START DOWN                   |  |                    |  |                              |  |
| SEC TEMP SN              |  | AT DEPTH                     |  |                    |  |                              |  |
| PRI COND SN              |  | AT SURFACE                   |  |                    |  |                              |  |
| SEC COND SN              |  | PAR S/N                      |  | FLUOR S/N          |  | MAX. DEPTH = 86 m            |  |
| POS. TRIP DEPTH          |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER         |  |
|                          |  | PRESSURE                     |  | PRI. TEMP.         |  | SEC. TEMP.                   |  |
|                          |  | SALINITY                     |  | SALINITY           |  | SAL. NUTR. CHL. WHIT'S NUTR. |  |
| 1 Bottom                 |  |                              |  |                    |  | 263 109                      |  |
| 2 60                     |  |                              |  |                    |  | 110                          |  |
| 3 40                     |  |                              |  |                    |  | 111                          |  |
| 4 30                     |  |                              |  |                    |  | 112                          |  |
| 5 20                     |  |                              |  |                    |  | 113                          |  |
| 6 10                     |  |                              |  |                    |  | 114                          |  |
| 7 0                      |  |                              |  |                    |  | 115                          |  |
| 8                        |  |                              |  |                    |  |                              |  |
| 9                        |  |                              |  |                    |  |                              |  |
| 10                       |  |                              |  |                    |  |                              |  |
| 11                       |  |                              |  |                    |  |                              |  |
| 12                       |  |                              |  |                    |  |                              |  |

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| VESSEL<br>R/V Kilo Moana |        | PROJECT & LEG<br>KMO050      |            | DSD8 I.D.          |          | STATION DESIGNATION  |              |
|--------------------------|--------|------------------------------|------------|--------------------|----------|----------------------|--------------|
| CONSC<br>CAST #          |        | LATITUDE                     |            | LONGITUDE          |          | DATE                 |              |
| DEG                      | MIN    | DEG                          | MIN        | DAY                | MO       | YR                   |              |
| 25                       | 15     | 09                           | 59         | N                  | 15       | 10                   | 03           |
| SBE 9+                   |        | TIME                         |            | TIME (GMT)         |          | TIME (GMT)           |              |
| PRESS SN                 |        | DATA ON                      |            | Tape/Diskette ID   |          | File Name/Header     |              |
| PRI TEMP SN              |        | START DOWN                   |            |                    |          |                      |              |
| SEC TEMP SN              |        | AT DEPTH                     |            |                    |          |                      |              |
| PRI COND SN              |        | AT SURFACE                   |            |                    |          |                      |              |
| SEC COND SN              |        | PAR S/N                      |            | FLUOR S/N          |          |                      |              |
| POS. TRIP DEPTH          |        | CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA |          | SAMPLE BOTTLE NUMBER |              |
| 1                        | Bottom | PRESSURE                     | PRI. TEMP. | SEC. TEMP.         | SALINITY | SAL.                 | WHIT'S NUTR. |
| 2                        | 60     |                              |            |                    |          | 116                  |              |
| 3                        | 40     |                              |            |                    |          | 117                  |              |
| 4                        | 30     |                              |            |                    |          | 118                  |              |
| 5                        | 20     |                              |            |                    |          | 119                  |              |
| 6                        | 10     |                              |            |                    |          | 120                  |              |
| 7                        | 0      |                              |            |                    |          | 121                  |              |
| 8                        |        |                              |            |                    |          | 122                  |              |
| 9                        |        |                              |            |                    |          |                      |              |
| 10                       |        |                              |            |                    |          |                      |              |
| 11                       |        |                              |            |                    |          |                      |              |
| 12                       |        |                              |            |                    |          |                      |              |

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|--------------------------|--|------------------------------|--|--|--|------------------|--|----------------------------|--|------------|--|------------|--|-------------|--|--------------|--|--------------|--|
| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0309      |  |  |  | DSDB I.D.        |  | STATION DESIGNATION<br>112 |  |            |  |            |  |             |  |              |  |              |  |
| CONSC CAST #             |  | DATE JD= 137                 |  |  |  | TIME (GMT)       |  | WET BULB                   |  | WIND DIRN. |  | WIND SPD.  |  | WEATHER     |  | BOTTOM DEPTH |  | STA. NAME/ID |  |
| 2525905.916              |  | 17 MAY 03                    |  |  |  | 134606.204       |  | 52737                      |  | 13010      |  | 7620172    |  | 601         |  |              |  |              |  |
| SBE 9+                   |  | LONGITUDE                    |  |  |  | LATITUDE         |  | PRESSURE                   |  | SEA STATE  |  | VISIBILITY |  | CLOUD (amt) |  |              |  |              |  |
| 2525905.916              |  | 115059.39                    |  |  |  | 17               |  | 134606.204                 |  | 52737      |  | 13010      |  | 7620172     |  |              |  |              |  |
| PRESS SN                 |  | DATA ON                      |  |  |  | Tape/Diskette ID |  | File Name/Header           |  | REMARKS    |  |            |  |             |  |              |  |              |  |
| PRI TEMP SN              |  | START DOWN                   |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| SEC TEMP SN              |  | AT DEPTH                     |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| PRI COND SN              |  | AT SURFACE                   |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| SEC COND SN              |  | PAR S/N                      |  |  |  | FLUOR S/N        |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| POS. 1 TRIP DEPTH        |  | CTD CONVERTED MONITOR VALUES |  |  |  | SALINITY         |  | SALINITY                   |  | SALINITY   |  | SALINITY   |  | SALINITY    |  | SALINITY     |  | SALINITY     |  |
| 1 Bottom                 |  | PRESSURE                     |  |  |  | PRI. TEMP.       |  | SEC. TEMP.                 |  | SALINITY   |  | SALINITY   |  | SALINITY    |  | SALINITY     |  | SALINITY     |  |
| 2 150                    |  |                              |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| 3 125                    |  |                              |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| 4 100                    |  |                              |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| 5 75                     |  |                              |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| 6 50                     |  |                              |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| 7 40                     |  |                              |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| 8 30                     |  |                              |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| 9 20                     |  |                              |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| 10 10                    |  |                              |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| 11 0                     |  |                              |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |
| 12                       |  |                              |  |  |  |                  |  |                            |  |            |  |            |  |             |  |              |  |              |  |

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| VESSEL<br>R/V Kilo Moana |     | PROJECT & LEG<br>RM9505b |     | DATE JD= 137                 |     | DSD8 ID.           |      | STATION DESIGNATION             |      |
|--------------------------|-----|--------------------------|-----|------------------------------|-----|--------------------|------|---------------------------------|------|
| LATITUDE                 |     | LONGITUDE                |     | TIME (GMT)                   |     | WET BULB           |      | WIND                            |      |
| DEG                      | MIN | DEG                      | MIN | HR                           | MIN | (°C)               | (°C) | DURN.                           | SPD. |
| CONSC<br>CAST #          |     | SEA STATE                |     | PRESSURE                     |     | WIND               |      | WEATHER                         |      |
| 2535900.56               |     | 15057.50                 |     | 145506.403                   |     | 7273710004         |      | 7620166                         |      |
| SBE 9+                   |     | DATA ON                  |     | Tape/Diskette ID             |     | File Name/Header   |      | REMARKS                         |      |
| PRESS SN                 |     | START DOWN               |     |                              |     |                    |      |                                 |      |
| PRI TEMP SN              |     | AT DEPTH                 |     |                              |     |                    |      |                                 |      |
| SEC TEMP SN              |     | AT SURFACE               |     |                              |     |                    |      |                                 |      |
| PRI COND SN              |     | PAR S/N                  |     | FLUOR S/N                    |     | MAX. DEPTH = 158 m |      | Cleaned air bleed valve         |      |
| SEC COND SN              |     | TRIP DEPTH               |     | CTD CONVERTED MONITOR VALUES |     | SAMPLE BOTTLE DATA |      | SAMPLE BOTTLE NUMBER            |      |
| POS.                     |     | PRESSURE                 |     | PRI. TEMP.                   |     | SEC. TEMP.         |      | SALINITY                        |      |
| 1 Bottom                 |     |                          |     |                              |     |                    |      | SAL. NUTR. CHL. WHIT'S NUTR.    |      |
| 2 125                    |     |                          |     |                              |     |                    |      | 12 13 14 15 16 17 18 19 20F 21F |      |
| 3 100                    |     |                          |     |                              |     |                    |      |                                 |      |
| 4 75                     |     |                          |     |                              |     |                    |      |                                 |      |
| 5 50                     |     |                          |     |                              |     |                    |      |                                 |      |
| 6 40                     |     |                          |     |                              |     |                    |      |                                 |      |
| 7 30                     |     |                          |     |                              |     |                    |      |                                 |      |
| 8 20                     |     |                          |     |                              |     |                    |      |                                 |      |
| 9 10                     |     |                          |     |                              |     |                    |      |                                 |      |
| 10 0                     |     |                          |     |                              |     |                    |      |                                 |      |
| 11                       |     |                          |     |                              |     |                    |      |                                 |      |
| 12                       |     |                          |     |                              |     |                    |      |                                 |      |

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| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0305b-    |  | DSDB ID.<br>KM0309 |  | STATION DESIGNATION  |  |
| CONSC CAST #             |  | DATE JD= 137                 |  | TIME (GMT)         |  | WIND DIRN.           |  |
| LATITUDE                 |  | LONGITUDE                    |  | WET BULB           |  | WIND SPD.            |  |
| DEG MIN                  |  | DEG MIN                      |  | (°C)               |  | (m/s)                |  |
| 25 58 52.79 N            |  | 150 53.93 W                  |  | 503.1              |  | 115                  |  |
| SBE 9+                   |  | JD/TIME                      |  | Tape/Diskette ID   |  | REMARKS              |  |
| PRESS SN                 |  | DATA ON                      |  | File Name/Header   |  |                      |  |
| PRI TEMP SN              |  | START DOWN                   |  |                    |  |                      |  |
| SEC TEMP SN              |  | AT DEPTH                     |  |                    |  |                      |  |
| PRI COND SN              |  | AT SURFACE                   |  |                    |  |                      |  |
| SEC COND SN              |  | PAR S/N                      |  | FLUOR S/N          |  | MAX. DEPTH = 156 m   |  |
| POS.   TRIP DEPTH        |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |
| 1 Bottom                 |  | PRESSURE                     |  | PRI TEMP.          |  | SEC TEMP.            |  |
| 2 125                    |  | SALINITY                     |  | SALINITY           |  | SAL.                 |  |
| 3 100                    |  | SALINITY                     |  | SALINITY           |  | NUTR.                |  |
| 4 75                     |  | SALINITY                     |  | SALINITY           |  | CHL.                 |  |
| 5 50                     |  | SALINITY                     |  | SALINITY           |  | WHIT'S NUTR.         |  |
| 6 40                     |  | SALINITY                     |  | SALINITY           |  |                      |  |
| 7 30                     |  | SALINITY                     |  | SALINITY           |  |                      |  |
| 8 20                     |  | SALINITY                     |  | SALINITY           |  |                      |  |
| 9 10                     |  | SALINITY                     |  | SALINITY           |  |                      |  |
| 10 0                     |  | SALINITY                     |  | SALINITY           |  |                      |  |
| 11                       |  | SALINITY                     |  | SALINITY           |  |                      |  |
| 12                       |  | SALINITY                     |  | SALINITY           |  |                      |  |

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| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0309      |  | DSDB I.D.          |  | STATION DESIGNATION  |  |
| CONSC<br>CAST #          |  | DATE JD- 137                 |  | TIME (GMT)         |  | WIND DIRN.           |  |
| LATITUDE                 |  | LONGITUDE                    |  | WET BULB           |  | WIND SPD.            |  |
| DEG MIN                  |  | DEG MIN                      |  | (°C)               |  | (m/s)                |  |
| 25 65 84 9.112 N         |  | 150 52.69 W                  |  | 00 3.32 03 01 40   |  | 10 08 62 01 83       |  |
| SBE 9+                   |  | JD/TIME                      |  | Tape/Diskette ID   |  | REMARKS              |  |
| PRESS SN                 |  | DATA ON                      |  | File Name/Header   |  |                      |  |
| PRI TEMP SN              |  | START DOWN                   |  |                    |  |                      |  |
| SEC TEMP SN              |  | AT DEPTH                     |  |                    |  |                      |  |
| PRI COND SN              |  | AT SURFACE                   |  |                    |  |                      |  |
| SEC COND SN              |  | PAR S/N                      |  | FLUOR S/N          |  | MAX. DEPTH = 182 m   |  |
| POS. TRIP DEPTH          |  | CTD CONVERTED MONITOR VALUES |  | SAMPLE BOTTLE DATA |  | SAMPLE BOTTLE NUMBER |  |
| 1 Bottom                 |  | PRESSURE                     |  | PRI. TEMP.         |  | SEC. TEMP.           |  |
| 2 150                    |  |                              |  |                    |  | SALINITY             |  |
| 3 125                    |  |                              |  |                    |  | SAL.                 |  |
| 4 100                    |  |                              |  |                    |  | NUTR.                |  |
| 5 75                     |  |                              |  |                    |  | CHL.                 |  |
| 6 50                     |  |                              |  |                    |  | WHIT'S NUTR.         |  |
| 7 40                     |  |                              |  |                    |  |                      |  |
| 8 30                     |  |                              |  |                    |  |                      |  |
| 9 20                     |  |                              |  |                    |  |                      |  |
| 10 10                    |  |                              |  |                    |  |                      |  |
| 11 0                     |  |                              |  |                    |  |                      |  |
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|--------------------------|----------|------------------------------|------------|--------------------|----------|----------------------|--------------|
| VESSEL<br>R/V Kilo Moana |          | PROJECT & LEG<br>KMO309      |            | DSDB ID.           |          | STATION DESIGNATION  |              |
| CONSC<br>CAST #          |          | LATITUDE                     |            | LONGITUDE          |          | DATE JD= 137         |              |
| 2575844                  | 84N      | 15052.2                      | 17W        | 185006.8           | 04.11    | 2938150098820181     | 5P6          |
| SBE 9+                   |          | TIMES                        |            | DATA LOCATION      |          | REMARKS              |              |
| PRESS SN                 |          | DATA ON                      |            | Tape/Diskette ID   |          | File Name/Header     |              |
| PRI TEMP SN              |          | START DOWN                   |            |                    |          |                      |              |
| SEC TEMP SN              |          | AT DEPTH                     |            |                    |          |                      |              |
| PRI COND SN              |          | AT SURFACE                   |            |                    |          |                      |              |
| SEC COND SN              |          | PAR S/N                      |            | FLUOR S/N          |          | MAX. DEPTH = 177 m   |              |
| POS. TRIP DEPTH          |          | CTD CONVERTED MONITOR VALUES |            | SAMPLE BOTTLE DATA |          | SAMPLE BOTTLE NUMBER |              |
| 6                        | 1 bottom | PRESSURE                     | PRI. TEMP. | SEC. TEMP.         | SALINITY | SAL.                 | WHIT'S NUTR. |
| 7                        | 2 150    |                              |            |                    |          | 265 53               |              |
| 8                        | 3 125    |                              |            |                    |          | 54                   |              |
| 9                        | 4 100    |                              |            |                    |          | 55                   |              |
| 10                       | 5 75     |                              |            |                    |          | 56                   |              |
| 11                       | 6 50     |                              |            |                    |          | 57                   |              |
| 12                       | 7 40     |                              |            |                    |          | 58                   |              |
| 13                       | 8 30     |                              |            |                    |          | 59 F                 |              |
| 14                       | 9 20     |                              |            |                    |          | 60 F                 |              |
| 15                       | 10 10    |                              |            |                    |          | 61 F                 |              |
| 16                       | 11 0     |                              |            |                    |          | 62 F                 |              |
| 17                       | 12       |                              |            |                    |          | 63 F                 |              |

| VESSEL<br>R/V Kilo Moana |  | PROJECT & LEG<br>KM0309 |  | DSDB I.D. |  | STATION DESIGNATION          |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
|--------------------------|--|-------------------------|--|-----------|--|------------------------------|--|------------------|--|---------------|--|------------------|--|---------------|--|-----------|--|-----------------|--|----------------|--|-------------|--|---------|--|------------------|--|--------------|--|
| CONSC CAST #             |  | LATITUDE                |  | LONGITUDE |  | DATE JD= 137                 |  | TIME (GMT)       |  | DRY BULB (°C) |  | WET BULB (°C)    |  | PRESSURE (mb) |  | SEA STATE |  | WIND DIRN (deg) |  | WIND SPD (m/s) |  | CLOUD (amt) |  | WEATHER |  | BOTTOM DEPTH (m) |  | STA. NAME/ID |  |
| 2505840.21N              |  | 15049.87W               |  | 17        |  | MAY 03                       |  | 19 54            |  | 05.9          |  | 03.4             |  | 293.4         |  | 3         |  | 094             |  | 4              |  | 88          |  | 2       |  | 193              |  | GPG60        |  |
| SBE 9+                   |  | JD/TIME                 |  | TIMES     |  | DATA ON                      |  | Tape/Diskette ID |  | DATA LOCATION |  | File Name/Header |  | REMARKS       |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| PRESS SN                 |  |                         |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| PRI TEMP SN              |  |                         |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| SEC TEMP SN              |  |                         |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| PRI COND SN              |  |                         |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| SEC COND SN              |  |                         |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| POS. TRIP DEPTH          |  | PAR S/N                 |  | FLUOR S/N |  | CTD CONVERTED MONITOR VALUES |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| 1 Bottom                 |  | ✓                       |  | PRESSURE  |  | PRI TEMP.                    |  | SEC. TEMP.       |  | SALINITY      |  | SALINITY         |  | SAL.          |  | NUTR.     |  | CHL.            |  | WHIT'S NUTR.   |  |             |  |         |  |                  |  |              |  |
| 2 175                    |  | ✓                       |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| 3 150                    |  | ✓                       |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| 4 125                    |  | ✓                       |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| 5 100                    |  | ✓                       |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| 6 75                     |  | ✓                       |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| 7 50                     |  | ✓                       |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| 8 40                     |  | ✓                       |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| 9 30                     |  | ✓                       |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| 10 20                    |  | ✓                       |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| 11 10                    |  | ✓                       |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |
| 12 0                     |  | ✓                       |  |           |  |                              |  |                  |  |               |  |                  |  |               |  |           |  |                 |  |                |  |             |  |         |  |                  |  |              |  |

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| VESSEL         |  |  |  |  |  |  |  |  |  | PROJECT & LEG                |  |  |  |  |  |  |  |  |  | STATION DESIGNATION |  |  |  |  |  |  |  |  |  |
|----------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|
| R/V Kilo Moana |  |  |  |  |  |  |  |  |  | KN0305b                      |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |
| 35.39          |  |  |  |  |  |  |  |  |  | 48.19                        |  |  |  |  |  |  |  |  |  | 2041                |  |  |  |  |  |  |  |  |  |
| CONSC CAST #   |  |  |  |  |  |  |  |  |  | LONGITUDE                    |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| LATITUDE       |  |  |  |  |  |  |  |  |  | DEG MIN                      |  |  |  |  |  |  |  |  |  | HR MIN              |  |  |  |  |  |  |  |  |  |
| 2595035.34 N   |  |  |  |  |  |  |  |  |  | 15048.09 W                   |  |  |  |  |  |  |  |  |  | 2051                |  |  |  |  |  |  |  |  |  |
| SBE 9+         |  |  |  |  |  |  |  |  |  | DEG MIN                      |  |  |  |  |  |  |  |  |  | DRY BULB (°C)       |  |  |  |  |  |  |  |  |  |
| PRESS SN       |  |  |  |  |  |  |  |  |  | DATA ON                      |  |  |  |  |  |  |  |  |  | WET BULB (°C)       |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN    |  |  |  |  |  |  |  |  |  | START DOWN                   |  |  |  |  |  |  |  |  |  | SEA STATE           |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN    |  |  |  |  |  |  |  |  |  | AT DEPTH                     |  |  |  |  |  |  |  |  |  | WIND DIRLN (deg)    |  |  |  |  |  |  |  |  |  |
| PRI COND SN    |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  | WIND SPD. (m/s)     |  |  |  |  |  |  |  |  |  |
| SEC COND SN    |  |  |  |  |  |  |  |  |  | PAR S/N                      |  |  |  |  |  |  |  |  |  | CLOUD (amt)         |  |  |  |  |  |  |  |  |  |
| POS.           |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | REMARKS             |  |  |  |  |  |  |  |  |  |
| TRIP DEPTH     |  |  |  |  |  |  |  |  |  | FLUOR S/N                    |  |  |  |  |  |  |  |  |  | DATA LOCATION       |  |  |  |  |  |  |  |  |  |
|                |  |  |  |  |  |  |  |  |  | PRESSURE                     |  |  |  |  |  |  |  |  |  | Tape/Diskette ID    |  |  |  |  |  |  |  |  |  |
|                |  |  |  |  |  |  |  |  |  | PRI TEMP.                    |  |  |  |  |  |  |  |  |  | File Name/Header    |  |  |  |  |  |  |  |  |  |
|                |  |  |  |  |  |  |  |  |  | SEC TEMP.                    |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |
| 1 bottom       |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | SAL                 |  |  |  |  |  |  |  |  |  |
| 2 150          |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | NUTR.               |  |  |  |  |  |  |  |  |  |
| 3 125          |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | CHL                 |  |  |  |  |  |  |  |  |  |
| 4 100          |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | SAL                 |  |  |  |  |  |  |  |  |  |
| 5 75           |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | NUTR.               |  |  |  |  |  |  |  |  |  |
| 6 50           |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | CHL                 |  |  |  |  |  |  |  |  |  |
| 7 40           |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | SAL                 |  |  |  |  |  |  |  |  |  |
| 8 30           |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | NUTR.               |  |  |  |  |  |  |  |  |  |
| 9 20           |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | CHL                 |  |  |  |  |  |  |  |  |  |
| 10 10          |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | SAL                 |  |  |  |  |  |  |  |  |  |
| 11 0           |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | NUTR.               |  |  |  |  |  |  |  |  |  |
| 12             |  |  |  |  |  |  |  |  |  | SALINITY                     |  |  |  |  |  |  |  |  |  | CHL                 |  |  |  |  |  |  |  |  |  |

[illegible]

[illegible]

| VESSEL          |  |  |  |  |  |  |  |  |  | PROJECT & LEG                |  |  |  |  |  |  |  |  |  | STATION DESIGNATION |  |  |  |  |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|
| R/V Kilo Moana  |  |  |  |  |  |  |  |  |  | KM0305b                      |  |  |  |  |  |  |  |  |  | DSDB ID.            |  |  |  |  |  |  |  |  |  |
| 22.94           |  |  |  |  |  |  |  |  |  | 42.24                        |  |  |  |  |  |  |  |  |  | 17                  |  |  |  |  |  |  |  |  |  |
| CONSC CAST #    |  |  |  |  |  |  |  |  |  | LONGITUDE                    |  |  |  |  |  |  |  |  |  | DATE ID=            |  |  |  |  |  |  |  |  |  |
| 26 258 24.88 N  |  |  |  |  |  |  |  |  |  | 154 42.119 W                 |  |  |  |  |  |  |  |  |  | 17 MAY 03           |  |  |  |  |  |  |  |  |  |
| SBE 9+          |  |  |  |  |  |  |  |  |  | TIME                         |  |  |  |  |  |  |  |  |  | TIME (GMT)          |  |  |  |  |  |  |  |  |  |
| PRESS SN        |  |  |  |  |  |  |  |  |  | DATA ON                      |  |  |  |  |  |  |  |  |  | 2342                |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN     |  |  |  |  |  |  |  |  |  | START DOWN                   |  |  |  |  |  |  |  |  |  | HR MIN              |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN     |  |  |  |  |  |  |  |  |  | AT DEPTH                     |  |  |  |  |  |  |  |  |  | 2346                |  |  |  |  |  |  |  |  |  |
| PRI COND SN     |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  | 2346                |  |  |  |  |  |  |  |  |  |
| SEC COND SN     |  |  |  |  |  |  |  |  |  | PAR S/N                      |  |  |  |  |  |  |  |  |  | FLUOR S/N           |  |  |  |  |  |  |  |  |  |
| POS. TRIP DEPTH |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | SAMPLE BOTTLE DATA  |  |  |  |  |  |  |  |  |  |
| 1 bottom        |  |  |  |  |  |  |  |  |  | PRESSURE                     |  |  |  |  |  |  |  |  |  | PRI TEMP.           |  |  |  |  |  |  |  |  |  |
| 2 50            |  |  |  |  |  |  |  |  |  | SEC. TEMP.                   |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 3 40            |  |  |  |  |  |  |  |  |  | SEC. TEMP.                   |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 4 20            |  |  |  |  |  |  |  |  |  | SEC. TEMP.                   |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 5 10            |  |  |  |  |  |  |  |  |  | SEC. TEMP.                   |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 6 0             |  |  |  |  |  |  |  |  |  | SEC. TEMP.                   |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 7               |  |  |  |  |  |  |  |  |  | SEC. TEMP.                   |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 8               |  |  |  |  |  |  |  |  |  | SEC. TEMP.                   |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 9               |  |  |  |  |  |  |  |  |  | SEC. TEMP.                   |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 10              |  |  |  |  |  |  |  |  |  | SEC. TEMP.                   |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 11              |  |  |  |  |  |  |  |  |  | SEC. TEMP.                   |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |
| 12              |  |  |  |  |  |  |  |  |  | SEC. TEMP.                   |  |  |  |  |  |  |  |  |  | SALINITY            |  |  |  |  |  |  |  |  |  |

| VESSEL<br>R/V Kilo Moana |           | PROJECT & LEG<br>KM0305b     |                | DSD8 ID.           |                  | STATION DESIGNATION  |           |
|--------------------------|-----------|------------------------------|----------------|--------------------|------------------|----------------------|-----------|
| 28.47                    |           | 56.73                        |                | 0101               |                  |                      |           |
| CONSC<br>CAST #          | LATITUDE  | LONGITUDE                    | DATE JD=       | TIME (GMT)         | DRY BULB<br>(°C) | WET BULB<br>(°C)     | SEA STATE |
| DEG MIN                  | DEG MIN   | DEG MIN                      | DAY MONTH YEAR | HR MIN             |                  |                      |           |
| 2635828.44N              | 15456.65W | 18MAY03                      | 18             | 0106               | 8.6              | 6.3                  | 3         |
| SBE 9+                   |           | JD/TIME                      |                | Tape/Diskette ID   |                  | DATA LOCATION        |           |
| PRESS SN                 |           | DATA ON                      |                | File Name/Header   |                  | REMARKS              |           |
| PRI TEMP SN              |           | START DOWN                   |                |                    |                  |                      |           |
| SEC TEMP SN              |           | AT DEPTH                     |                |                    |                  |                      |           |
| PRI COND SN              |           | AT SURFACE                   |                |                    |                  |                      |           |
| SEC COND SN              |           | PAR S/N                      |                | FLUOR S/N          |                  | MAX. DEPTH = m       |           |
| POS. TRIP DEPTH          |           | CTD CONVERTED MONITOR VALUES |                | SAMPLE BOTTLE DATA |                  | SAMPLE BOTTLE NUMBER |           |
| 1                        | bottom    | PRESSURE                     | PRI. TEMP.     | SEC. TEMP.         | SALINITY         | SAL.                 | NUTR.     |
| 2                        | 54        |                              |                |                    | 6                | 165                  | CHL       |
| 3                        | 34        |                              |                |                    | 7                | 166                  |           |
| 4                        | 24        |                              |                |                    | 8                | 167                  |           |
| 5                        | 14        |                              |                |                    | 9                | 168                  |           |
| 6                        | 4         |                              |                |                    | 10               | 169                  |           |
| 7                        |           |                              |                |                    | 11               | 174                  |           |
| 8                        |           |                              |                |                    |                  |                      |           |
| 9                        |           |                              |                |                    |                  |                      |           |
| 10                       |           |                              |                |                    |                  |                      |           |
| 11                       |           |                              |                |                    |                  |                      |           |
| 12                       |           |                              |                |                    |                  |                      |           |

Strong current  
Ship going 2.5 kts to keep line straight

| VESSEL<br>R/V Kilo Moana |    | PROJECT & LEG<br>KM0305b |    | DSDB I.D. |   | STATION DESIGNATION |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------|----|--------------------------|----|-----------|---|---------------------|----|------------|----|----------|---|----------|---|----------|---|-----------|---|------------|---|------------|---|-----------|---|-------------|---|---------|---|--------------|---|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSC<br>CAST #          |    | LATITUDE                 |    | LONGITUDE |   | DATE JD=            |    | TIME (GMT) |    | DRY BULB |   | WET BULB |   | PRESSURE |   | SEA STATE |   | VISIBILITY |   | WIND DIRN. |   | WIND SPD. |   | CLOUD (amt) |   | WEATHER |   | BOTTOM DEPTH |   | STA. NAME/ID |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 27.38                    |    | 08.24                    |    | 0159      |   | 0159                |    | 0159       |    | 0159     |   | 0159     |   | 0159     |   | 0159      |   | 0159       |   | 0159       |   | 0159      |   | 0159        |   | 0159    |   | 0159         |   | 0159         |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 26                       | 45 | 8                        | 27 | 4         | 4 | N                   | 15 | 1          | 08 | 17       | W | 18       | M | A        | Y | 0         | 3 | 0          | 2 | 1          | 3 | 8         | 4 | 5           | 4 | 2       | 8 | 3            | 8 | 1            | 4 | 6 | 1 | 8 | 7 | 8 | 1 | 1 | 9 | 5 | A | P | 4 |
| SBE 9+                   |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| PRESS SN                 |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| PRI TEMP SN              |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SEC TEMP SN              |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| PRI COND SN              |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SEC COND SN              |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| DATA ON                  |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| START DOWN               |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AT DEPTH                 |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AT SURFACE               |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| PAR S/N                  |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| FLUOR S/N                |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CLEANED AIR BLEED VALVE  |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| MAX. DEPTH = m           |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| REMARKS                  |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| DATA LOCATION            |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Tape/Diskette ID         |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| File Name/Header         |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SAMPLE BOTTLE DATA       |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SAMPLE BOTTLE NUMBER     |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SALINITY                 |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SAL                      |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| NUTR.                    |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CHL.                     |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| WHIT'S NUTR.             |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| PRESSURE                 |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| PRI. TEMP.               |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SEC. TEMP.               |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SALINITY                 |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SAL                      |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| NUTR.                    |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CHL.                     |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| WHIT'S NUTR.             |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| TRIP DEPTH               |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| POS.                     |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1                        |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2                        |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 3                        |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 4                        |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 5                        |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6                        |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 7                        |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 8                        |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 9                        |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10                       |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 11                       |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 12                       |    |                          |    |           |   |                     |    |            |    |          |   |          |   |          |   |           |   |            |   |            |   |           |   |             |   |         |   |              |   |              |   |   |   |   |   |   |   |   |   |   |   |   |   |

125

| VESSEL<br>R/V Kilo Moana |  |  |  |  |  |  |  |  |  | PROJECT & LEG<br>KM0305b     |  |  |  |  |  |  |  |  |  | DSD8 I.D.          |  |  |  |  |  |  |  |  |  | STATION DESIGNATION  |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
|--------------------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|--------------------|--|--|--|--|--|--|--|--|--|----------------------|--|--|--|--|--|--|--|--|--|---------------|--|--|--|--|--|--|--|--|--|----------|--|--|--|--|--|--|--|--|--|-----------|--|--|--|--|--|--|--|--|--|------------|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|-------------|--|--|--|--|--|--|--|--|--|---------|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|
| 26.58                    |  |  |  |  |  |  |  |  |  | 19.92                        |  |  |  |  |  |  |  |  |  | 0312               |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| LATITUDE                 |  |  |  |  |  |  |  |  |  | LONGITUDE                    |  |  |  |  |  |  |  |  |  | DATE JD-           |  |  |  |  |  |  |  |  |  | TIME (GMT)           |  |  |  |  |  |  |  |  |  | WET BULB      |  |  |  |  |  |  |  |  |  | PRESSURE |  |  |  |  |  |  |  |  |  | SEA STATE |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD.    |  |  |  |  |  |  |  |  |  | CLOUD (amt) |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  | STA. NAME/ID |  |  |  |  |  |  |  |  |  |
| DEG MIN                  |  |  |  |  |  |  |  |  |  | DEG MIN                      |  |  |  |  |  |  |  |  |  | DAY MONTH YEAR     |  |  |  |  |  |  |  |  |  | HR MIN               |  |  |  |  |  |  |  |  |  | (°C)          |  |  |  |  |  |  |  |  |  | (mb)     |  |  |  |  |  |  |  |  |  | *         |  |  |  |  |  |  |  |  |  | TYPE       |  |  |  |  |  |  |  |  |  | * *          |  |  |  |  |  |  |  |  |  | (m)         |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 26 58 26.4               |  |  |  |  |  |  |  |  |  | 15 12 48.4                   |  |  |  |  |  |  |  |  |  | 18 MAY 03          |  |  |  |  |  |  |  |  |  | 03 24                |  |  |  |  |  |  |  |  |  | 3.5           |  |  |  |  |  |  |  |  |  | 28.3     |  |  |  |  |  |  |  |  |  | 7         |  |  |  |  |  |  |  |  |  | 49         |  |  |  |  |  |  |  |  |  | 11           |  |  |  |  |  |  |  |  |  | 48          |  |  |  |  |  |  |  |  |  | 6       |  |  |  |  |  |  |  |  |  | 128          |  |  |  |  |  |  |  |  |  | APR 3        |  |  |  |  |  |  |  |  |  |
| SBE 9+                   |  |  |  |  |  |  |  |  |  | TIMES                        |  |  |  |  |  |  |  |  |  | JD/TIME            |  |  |  |  |  |  |  |  |  | Tape/Diskette ID     |  |  |  |  |  |  |  |  |  | DATA LOCATION |  |  |  |  |  |  |  |  |  | REMARKS  |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| PRESS SN                 |  |  |  |  |  |  |  |  |  | DATA ON                      |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  | File Name/Header     |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN              |  |  |  |  |  |  |  |  |  | START DOWN                   |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN              |  |  |  |  |  |  |  |  |  | AT DEPTH                     |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| PRI COND SN              |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| SEC COND SN              |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | PAR S/N            |  |  |  |  |  |  |  |  |  | FLUOR S/N            |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| POS. TRIP DEPTH          |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | SAMPLE BOTTLE DATA |  |  |  |  |  |  |  |  |  | SAMPLE BOTTLE NUMBER |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 1 Bot                    |  |  |  |  |  |  |  |  |  | PRESSURE                     |  |  |  |  |  |  |  |  |  | PRI TEMP.          |  |  |  |  |  |  |  |  |  | SEC. TEMP            |  |  |  |  |  |  |  |  |  | SALINITY      |  |  |  |  |  |  |  |  |  | SAL.     |  |  |  |  |  |  |  |  |  | NUTR.     |  |  |  |  |  |  |  |  |  | CHL.       |  |  |  |  |  |  |  |  |  | WHIT'S NUTR. |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 2 100                    |  |  |  |  |  |  |  |  |  | 6                            |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  | 6        |  |  |  |  |  |  |  |  |  | 77        |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 3 75                     |  |  |  |  |  |  |  |  |  | 7                            |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  | 7        |  |  |  |  |  |  |  |  |  | 78        |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 4 50                     |  |  |  |  |  |  |  |  |  | 8                            |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  | 8        |  |  |  |  |  |  |  |  |  | 79        |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 5 30                     |  |  |  |  |  |  |  |  |  | 9                            |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  | 9        |  |  |  |  |  |  |  |  |  | 84        |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 6 20                     |  |  |  |  |  |  |  |  |  | 10                           |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  | 10       |  |  |  |  |  |  |  |  |  | 81        |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 7 10                     |  |  |  |  |  |  |  |  |  | 11                           |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  | 11       |  |  |  |  |  |  |  |  |  | 82        |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 8 0                      |  |  |  |  |  |  |  |  |  | 19                           |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  | 19       |  |  |  |  |  |  |  |  |  | 83        |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  | 24                           |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  | 20       |  |  |  |  |  |  |  |  |  | 84        |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |          |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |

☐ Cleaned air bleed valve

MAX. DEPTH = m

163

|                          |  |  |  |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
|--------------------------|--|--|--|--|--|--|--|--|--|--------------------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|------------|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|------------|--|--|--|--|--|--|--|--|--|-----------|--|--|--|--|--|--|--|--|--|---------|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|
| VESSEL<br>R/V Kilo Moana |  |  |  |  |  |  |  |  |  | PROJECT & LEG<br>KM0305b |  |  |  |  |  |  |  |  |  | DSD8 I.D.                    |  |  |  |  |  |  |  |  |  | STATION DESIGNATION          |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| CONSC CAST #             |  |  |  |  |  |  |  |  |  | 25.76                    |  |  |  |  |  |  |  |  |  | 31.72                        |  |  |  |  |  |  |  |  |  | 423                          |  |  |  |  |  |  |  |  |  | 167        |  |  |  |  |  |  |  |  |  | STA. NAME/ID |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |
| DEG MIN                  |  |  |  |  |  |  |  |  |  | 25.59 N                  |  |  |  |  |  |  |  |  |  | LONGITUDE                    |  |  |  |  |  |  |  |  |  | DEG MIN                      |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| 26 65 8                  |  |  |  |  |  |  |  |  |  | 25.59 N                  |  |  |  |  |  |  |  |  |  | 151 31.87 W                  |  |  |  |  |  |  |  |  |  | 151 31.87 W                  |  |  |  |  |  |  |  |  |  | 04 47      |  |  |  |  |  |  |  |  |  | 5.9          |  |  |  |  |  |  |  |  |  | 097        |  |  |  |  |  |  |  |  |  | 21        |  |  |  |  |  |  |  |  |  | 81      |  |  |  |  |  |  |  |  |  | 167          |  |  |  |  |  |  |  |  |  |
| SBE 9+                   |  |  |  |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |  |  | DATE JD=                     |  |  |  |  |  |  |  |  |  | DATE JD=                     |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| PRESS SN                 |  |  |  |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |  |  | DATA ON                      |  |  |  |  |  |  |  |  |  | DATA ON                      |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| PRI TEMP SN              |  |  |  |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |  |  | START DOWN                   |  |  |  |  |  |  |  |  |  | START DOWN                   |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| SEC TEMP SN              |  |  |  |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |  |  | AT DEPTH                     |  |  |  |  |  |  |  |  |  | AT DEPTH                     |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| PRI COND SN              |  |  |  |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  | AT SURFACE                   |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| SEC COND SN              |  |  |  |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |  |  | PAR S/N                      |  |  |  |  |  |  |  |  |  | PAR S/N                      |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| FLUOR S/N                |  |  |  |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |  |  | FLUOR S/N                    |  |  |  |  |  |  |  |  |  | FLUOR S/N                    |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| TRIP DEPTH               |  |  |  |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | CTD CONVERTED MONITOR VALUES |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| POS.                     |  |  |  |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |  |  | PRESSURE                     |  |  |  |  |  |  |  |  |  | PRESSURE                     |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| 1                        |  |  |  |  |  |  |  |  |  | bottom                   |  |  |  |  |  |  |  |  |  | 6                            |  |  |  |  |  |  |  |  |  | 6                            |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| 2                        |  |  |  |  |  |  |  |  |  | 156                      |  |  |  |  |  |  |  |  |  | 7                            |  |  |  |  |  |  |  |  |  | 7                            |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| 3                        |  |  |  |  |  |  |  |  |  | 125                      |  |  |  |  |  |  |  |  |  | 8                            |  |  |  |  |  |  |  |  |  | 8                            |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| 4                        |  |  |  |  |  |  |  |  |  | 106                      |  |  |  |  |  |  |  |  |  | 9                            |  |  |  |  |  |  |  |  |  | 9                            |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| 5                        |  |  |  |  |  |  |  |  |  | 75                       |  |  |  |  |  |  |  |  |  | 10                           |  |  |  |  |  |  |  |  |  | 10                           |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| 6                        |  |  |  |  |  |  |  |  |  | 50                       |  |  |  |  |  |  |  |  |  | 11                           |  |  |  |  |  |  |  |  |  | 11                           |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| 7                        |  |  |  |  |  |  |  |  |  | 30                       |  |  |  |  |  |  |  |  |  | 19                           |  |  |  |  |  |  |  |  |  | 19                           |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| 8                        |  |  |  |  |  |  |  |  |  | 20                       |  |  |  |  |  |  |  |  |  | 20                           |  |  |  |  |  |  |  |  |  | 20                           |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| 9                        |  |  |  |  |  |  |  |  |  | 10                       |  |  |  |  |  |  |  |  |  | 21                           |  |  |  |  |  |  |  |  |  | 21                           |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| 10                       |  |  |  |  |  |  |  |  |  | 0                        |  |  |  |  |  |  |  |  |  | 22                           |  |  |  |  |  |  |  |  |  | 22                           |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| 11                       |  |  |  |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |
| 12                       |  |  |  |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  | TIME (GMT) |  |  |  |  |  |  |  |  |  | WET BULB     |  |  |  |  |  |  |  |  |  | WIND DIRN. |  |  |  |  |  |  |  |  |  | WIND SPD. |  |  |  |  |  |  |  |  |  | WEATHER |  |  |  |  |  |  |  |  |  | BOTTOM DEPTH |  |  |  |  |  |  |  |  |  |

[illegible]