

# DAILY LOG BOOK

MISSION  
NUMBER

2008-15

DATE:

From: OCT 7 / 08 to: NOV 11 / 08

VESSEL:

W.E. RICHER

PROJECT:

HIGH SEAS SALMON - TRUDEL

1 OF 2

INSTITUTE OF OCEAN SCIENCES  
OCEAN SCIENCES AND PRODUCTIVITY DIVISION  
SIDNEY, BC, CANADA

Captain: SCOTT DOAM First Officer: SEAN POTTER  
Second Officer: \_\_\_\_\_ Third Officer: Jodi HESKE

Mission Participants / Agencies: PBS / 105 / 050

**Scientific Personnel:**

Party Chief: MARC TRUDEL

| Name        | Watch | Cabin | Name | Watch | Cabin |
|-------------|-------|-------|------|-------|-------|
| JOHN MORRIS |       |       |      |       |       |

TYLER ZUBKOWSKI

LIANE STENHOUSE

JOHANN JUNG

WYLLIE EVANS

HUG4 MACLEAN

## Second leg of Mission:

Party Chief:

| Name | Watch | Cabin |
|------|-------|-------|
| Name | Watch | Cabin |

**Data logging computer:**

**Data acquisition program:** SCASAVE V 7

CTD deck unit make: SBC model: 111 serial number: 11918377-0471

## Primary CTD

Make: Subaru model: Impreza serial number: 3506

Primary temperature serial number: \_\_\_\_\_

Primary conductivity serial number: ~~XXXXXX~~

Secondary temperature serial number: 2968

Secondary conductivity serial number: 3039

Transmissometer: SCAPOINT Model: SCAPOINT

Fluorometer: Model SEAPOINT Cable gain: 10 X 0.15

Oxygen sensor: \_\_\_\_\_  
Oxygen sensor: SBC  
Cable gmm.: \_\_\_\_\_  
Cable gmm.: 00013 s/l.  
Model: 43 s/n: 0047  
P S or NO pump: P  
S or NO pump: S

PAR sensor: \_\_\_\_\_ s/n: \_\_\_\_\_ S or NO pump: \_\_\_\_\_  
Model: \_\_\_\_\_ s/n: \_\_\_\_\_

Other sensors: \_\_\_\_\_ s/m. \_\_\_\_\_ s/m. \_\_\_\_\_ s/n. \_\_\_\_\_ p/s or NO

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump? \_\_\_\_\_  
 \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump? \_\_\_\_\_

Other sensors: \_\_\_\_\_  
 S/n: \_\_\_\_\_  
 P, S or NO pump? \_\_\_\_\_  
 S/n: \_\_\_\_\_  
 P, S or NO pump? \_\_\_\_\_

Other sensors:

s/n: \_\_\_\_\_

P, S or NO pump? \_\_\_\_\_

s/n: \_\_\_\_\_

P, S or NO pump? \_\_\_\_\_

## Secondary CTD

Make: \_\_\_\_\_ model: \_\_\_\_\_ serial number: \_\_\_\_\_

Primary temperature serial number: \_\_\_\_\_ model: \_\_\_\_\_

Primary conductivity serial number:

Secondary temperature serial number:

Secondary conductivity serial number:

Transmissometer: \_\_\_\_\_  
Model: \_\_\_\_\_

Fluorometer: Model \_\_\_\_\_ Cable gain: \_\_\_\_\_

Oxygen sensor: \_\_\_\_\_  
 Model: \_\_\_\_\_ s/n: \_\_\_\_\_  
 Serial number: \_\_\_\_\_ s/n: \_\_\_\_\_  
 I, Sol NO pump! \_\_\_\_\_ P S or NO numm?

PAR sensor: \_\_\_\_\_ s/n: \_\_\_\_\_  
 Model: \_\_\_\_\_ s/n: \_\_\_\_\_  
 I, S or NO pump: \_\_\_\_\_ s/n: \_\_\_\_\_

Other sensors: \_\_\_\_\_ S/n: \_\_\_\_\_ P S or NO numm? \_\_\_\_\_

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_  
\_\_\_\_\_ i, s or NO pump? \_\_\_\_\_ P S or NO numm? \_\_\_\_\_

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_  
 \_\_\_\_\_ s/n: \_\_\_\_\_  
 \_\_\_\_\_ s/n: \_\_\_\_\_

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_  
\_\_\_\_\_ s/n: \_\_\_\_\_  
\_\_\_\_\_ i, s or NO pump? \_\_\_\_\_ P, S or NO numm? \_\_\_\_\_

CTD calibration bottle location (height above CTD in metres):

## DAILY LOG

## Ocean Sciences and Productivity Division

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[illegible]

Cast type:

BOT = bottle cast, no CTD  
CTD = CTD without Rosette  
ROS = Rosette plus CTD

USW = sea water loop  
MOR = mooring  
NET = net haul  
DRF = drifter

**bottle firing method:**  
 US = up/stop  
 UN = up/no stop  
 DN = down/no stop

Time Code

BE = beginning time of cast  
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DE = deployment time  
MR = messenger release time  
RE = recover mooring time

**Transmissometer to be cleaned for each cast, do not use Ammonia products**

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\* NMEA LONGITUDE WRONG - STATION DATA IN .CON FILE (NOT .HEX)

\* NMEA LONG FLASHES IN AND OUT ON SCREEN - LOOKS OK IN FILE

# DAILY LOG

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| Month OCT |              |            | Year 2008 |           |               |              | Ship W.E. RICKER |             |              |           | Cruise ID 2008-15 |             |               |                |                        |
|-----------|--------------|------------|-----------|-----------|---------------|--------------|------------------|-------------|--------------|-----------|-------------------|-------------|---------------|----------------|------------------------|
| Day       | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position         |             | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|           |              |            |           |           |               |              | Latitude         | Longitude   |              |           |                   |             |               |                |                        |
| 9         | H 02         | 1618       | Be        | CTD       |               | 010          | 52° 16. 16       | 129° 26. 12 | 168          |           |                   | 1           | H.M.          |                | T: 11.52 S: 31.52      |
|           |              | 1623       | Bo        |           |               |              | 52° 16. 20       | 129° 26. 13 |              | 155       |                   |             |               |                | BOT@10m - SAL/CHL/NUTS |
|           |              | 1628       | EN        |           |               |              | 52° 16. 20       | 129° 26. 12 |              |           |                   |             |               |                |                        |
|           |              | 1635       | Be        | NET       |               | 011          | 52° 16. 20       | 129° 26. 13 |              | 150       |                   |             |               |                | BONGO                  |
|           |              | 1656       | Be        | TRAWL     |               | 012          | 52 16 31         | 129 27 30.  |              |           |                   |             |               |                | TRAWL                  |
| 9         | H 03         | 1824       | Be        | CTD       |               | 013          | 52° 18. 90       | 129° 41. 70 | 204          |           |                   | 1           |               |                | T: 11.79 S: 31.52      |
|           |              | 1828       | Bo        |           |               |              | 52° 18. 88       | 129° 41. 73 |              | 195       |                   |             |               |                | BOT@10m - SAL/CHL/NUTS |
|           |              | 1834       | EN        |           |               |              | 52° 18. 86       | 129° 41. 76 |              |           |                   |             |               |                |                        |
|           |              | 1838       | Be        | NET       |               | 014          | 52° 18. 84       | 129° 41. 79 |              | 150       |                   |             |               |                | BONGO                  |
|           |              | 19:00      | Be        | TRAWL     |               | 015          | 52 19 07         | 129 42 91   |              |           |                   |             |               |                | TRAWL                  |
| 9         | H 04         | 2034       | Be        | CTD       |               | 016          | 52° 22. 41       | 129° 57. 73 | 208          |           |                   | 1           |               |                | T: 11.76 S: 31.58      |
|           |              | 2039       | Bo        |           |               |              | 52° 22. 35       | 129° 57. 79 |              | 195       |                   |             |               |                | BOT@10m - SAL/CHL/NUTS |
|           |              | 2043       | EN        |           |               |              | 52° 22. 30       | 129° 57. 85 |              |           |                   |             |               |                |                        |
|           |              | 2045       | Be        | NET       |               | 017          | 52° 22. 21       | 129° 57. 80 |              | 150       |                   |             |               |                | BONGO                  |
|           |              | 21:07      | Be        | TRAWL     |               | 018          | 52 22 19         | 129 58 84   |              |           |                   |             |               |                | TRAWL                  |
|           |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                        |
|           |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                        |

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|---------------|--------------|------------|-----------|-----------|---------------|--------------|-------------------|------------|--------------|-----------|-------------------|-------------|---------------|----------------|-------------------------|--|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position          |            | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments                |  |
|               |              |            |           |           |               |              | Latitude          | Longitude  |              |           |                   |             |               |                |                         |  |
| 9             | H 05         | 2239       | BE        | CTD       |               | 019          | 52° 25.57         | 130° 13.19 | 314          |           |                   | 1           | H.M.          |                | T: 11.62 S: 31.62       |  |
|               |              | 2245       | BO        |           |               |              | 52° 25.54         | 130° 13.28 |              | 250       |                   |             |               |                | BOT@10m - SAL/CHL/NOTES |  |
|               |              | 2251       | EN        |           |               |              | 52° 25.50         | 130° 13.37 |              |           |                   |             |               |                |                         |  |
|               |              | 2253       | BE        | NET       |               | 020          | 52° 25.49         | 130° 13.41 |              | 150       |                   |             |               |                | BONGO                   |  |
|               |              | 2316       | BE        | TRAWL     |               | 021          | 52 25 65          | 130 14 92  |              |           |                   |             |               |                | TRAWL                   |  |
|               |              |            |           |           |               |              |                   |            |              |           |                   |             |               |                |                         |  |
| 10            | H 06         | 0045       | BE        | CTD       |               | 022          | 52° 28.83         | 130° 29.06 | 167          |           |                   | 1           |               |                | T: 11.63 S: 31.43       |  |
|               |              | 0048       | BO        |           |               |              | 52° 28.82         | 130° 29.09 |              | 155       |                   |             |               |                | BOT@10m - SAL/CHL/NOTES |  |
|               |              | 0051       | EN        |           |               |              | 52° 28.81         | 130° 29.15 |              |           |                   |             |               |                |                         |  |
|               |              | 0053       | BE        | NET       |               | 023          | 52° 28.81         | 130° 29.17 |              | 150       |                   |             |               |                | BONGO                   |  |
|               |              | 0114       | BE        | TRAWL     |               | 024          | 52 29 07          | 130 30 50  |              |           |                   |             |               |                | TRAWL                   |  |
|               |              |            |           |           |               |              |                   |            |              |           |                   |             |               |                |                         |  |
| 10            | DE 01        | 1423       | BE        | CTD       |               | 025          | 54° 15.69         | 131° 39.73 | 120          |           |                   | 1           |               |                | T: 10.15 S: 31.63       |  |
|               |              | 1425       | BO        |           |               |              | 54° 15.70         | 131° 39.73 |              | 110       |                   |             |               |                | BOT@10m - SAL/CHL/NOTES |  |
|               |              | 1429       | EN        |           |               |              | 54° 15.71         | 131° 39.73 |              |           |                   |             |               |                |                         |  |
|               |              | 1432       | BE        | NET       |               | 026          | 54° 15.71         | 131° 39.72 |              | 110       |                   |             |               |                | BONGO                   |  |
|               |              | 1454       | BE        | TRAWL     |               | 027          | 54 15 13          | 131 41 27  |              |           |                   |             |               |                | TRAWL                   |  |
|               |              |            |           |           |               |              |                   |            |              |           |                   |             |               |                |                         |  |
|               |              |            |           |           |               |              |                   |            |              |           |                   |             |               |                |                         |  |

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Cruise ID 2008-15

| Month OCTOBER |              |            |           | Year 2008 |               |              | Ship W.E. RICKER |             |              |           | Cruise ID 2008-15 |             |               |                |                        |
|---------------|--------------|------------|-----------|-----------|---------------|--------------|------------------|-------------|--------------|-----------|-------------------|-------------|---------------|----------------|------------------------|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position         |             | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|               |              |            |           |           |               |              | Latitude         | Longitude   |              |           |                   |             |               |                |                        |
| 10            | DE 02        | 1633       | BE        | CTD       |               | 028          | 54° 08 60        | 131° 57. 45 | 49           |           |                   | 1           | H.M.          |                | T: 10.17 S: 31.40      |
|               |              | 1634       | BO        |           |               |              | 54° 08. 62       | 131° 57. 44 |              | 40        |                   |             |               |                | BOT@10m - SAL/CHL/NUTS |
|               |              | 1637       | EN        |           |               |              | 54° 08. 64       | 131° 57. 41 |              |           |                   |             |               |                |                        |
|               |              | 1640       | BE        | NET       |               | 029          | 54° 08. 68       | 131° 57. 40 |              | 40        |                   |             |               |                | BONGO                  |
|               |              | 1650       | BE        | TRAWL     |               | 030          | 54 8 93          | 131 58. 3   |              |           |                   |             |               |                | TRAWL                  |
| 10            | DE 03        | 1815       | BE        | CTD       |               | 031          | 54° 08 46        | 132° 11. 50 | 45           |           |                   | 1           |               |                | T: 10.69 S: 31.70      |
|               |              | 1816       | BO        |           |               |              | 54° 08 46        | 132° 11. 50 |              | 35        |                   |             |               |                | BOT@10m - SAL/CHL/NUTS |
|               |              | 1818       | EN        |           |               |              | 54° 08 46        | 132° 11. 49 |              |           |                   |             |               |                |                        |
|               |              | 1821       | BE        | NET       |               | 032          | 54° 08 44        | 132° 11 43  |              | 35        |                   |             |               |                | BONGO                  |
|               |              | 1836       | BE        | TRAWL     |               | 033          | 54 9. 0          | 132 12. 3   |              |           |                   |             |               |                | TRAWL                  |
| 10            | DE 04        | 2000       | BE        | CTD       |               | 034          | 54° 07. 90       | 132° 28. 33 | 51           |           |                   | 1           |               |                | T: 10.16 S: 31.10      |
|               |              | 2001       | BO        |           |               |              | 54° 07 90        | 132° 28. 33 |              | 40        |                   |             |               |                | BOT@10m - SAL/CHL/NUTS |
|               |              | 2003       | EN        |           |               |              | 54° 07 91        | 132° 28. 34 |              |           |                   |             |               |                |                        |
|               |              | 2007       | BE        | NET       |               | 035          | 54° 07 93        | 132° 28. 36 |              |           |                   |             |               |                | BONGO                  |
|               |              | 2021       | BE        | TRAWL     |               | 036          | 54 08 32         | 132 29. 7   |              |           |                   |             |               |                | TRAWL                  |

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|---------------|--------------|------------|-----------|-----------|---------------|--------------|------------------|------------|--------------|-------------------|----------------|-------------|---------------|----------------|------------------------|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position         |            | Bottom Depth | Max Depth         | Sample Numbers | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|               |              |            |           |           |               |              | Latitude         | Longitude  |              |                   |                |             |               |                |                        |
| 10            | DE 05        | 2142       | BE        | CTD       |               | 037          | 54° 10.71        | 132° 45.64 | 58           |                   |                | 1           | H.M.          |                | T: 10.075: 31.10       |
|               |              | 2144       | BO        |           |               |              | 54° 10.70        | 132° 45.66 |              | 48                |                |             |               |                | BOT@10m - SAL/CHL/NUTS |
|               |              | 2145       | EN        |           |               |              | 54° 10.70        | 132° 45.68 |              |                   |                |             |               |                |                        |
|               |              | 2149       | BE        | NET       |               | 038          | 54° 10.69        | 132° 45.73 |              | 47                |                |             |               |                | BONGO                  |
|               |              | 2104       | BE        | TRAWL     |               | 039          | 54 10 27         | 132 45.00  |              |                   |                |             |               |                | TRAWL                  |
| 10            | DE 06        | 2310       | BE        | CTD       |               | 040          | 54° 14.68        | 132° 55.45 | 207          |                   |                | 1           |               |                | T: 10.15 S: 31.03      |
|               |              | 2314       | BO        |           |               |              | 54° 14.76        | 132° 55.53 |              | 195               |                |             |               |                | BOT@10m - SAL/CHL/NUTS |
|               |              | 2318       | EN        |           |               |              | 54° 14.81        | 132° 55.64 |              |                   |                |             |               |                |                        |
|               |              | 2323       | BE        | NET       |               | 041          | 54° 14.87        | 132° 55.60 |              | 150               |                |             |               |                | BONGO                  |
|               |              | 2339       | BE        | TRAWL     |               | 042          | 54 15.34         | 132 56.80  |              |                   |                |             |               |                | TRAWL                  |
| 11            | ISEA 01      | 1406       | BE        | CTD       |               | 043          | 55° 28.26        | 132° 03.99 | 425          |                   |                | 1           |               |                | T: 9.92 S: 29.56       |
|               |              | 1411       | BO        |           |               |              | 55° 28.30        | 132° 03.93 |              | 250               |                |             |               |                | BOT@10m - SAL/NUTS/CHL |
|               |              | 1417       | EN        |           |               |              | 55° 28.39        | 132° 03.93 |              |                   |                |             |               |                |                        |
|               |              | 1423       | BE        | NET       |               | 044          | 55° 28.40        | 132° 03.98 |              | 150               |                |             |               |                | BONGO                  |
|               |              | 1445       | BE        | TRAWL     |               | 045          | 55 29 16         | 132 5.61   |              |                   |                |             |               |                | TRAWL                  |

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| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position         |            | Bottom Depth | Max Depth | Sample Numbers   | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|               |              |            |           |           |               |              | Latitude         | Longitude  |              |           |                  |             |               |                |                        |
| 11            | ISCA 02      | 1545       | BC        | CTD       |               | 046          | 55° 33.05        | 132° 10.98 | 395          |           |                  | 1           | H.M.          |                | T: 9.98 S: 29.05       |
|               |              | 1549       | BO        |           |               |              | 55° 33.09        | 132° 10.99 |              | 250       |                  |             |               |                | BOT@10m - SAL/CHL/NUIS |
|               |              | 1556       | CH        |           |               |              | 55° 33.15        | 132° 11.06 |              |           |                  |             |               |                |                        |
|               |              | 1600       | BC        | NET       |               | 047          | 55° 33.16        | 132° 11.08 |              | 150       |                  |             |               |                | BONGO                  |
|               |              | 1620       | BC        | TRAWL     |               | 048          | 55 34 02         | 132 12 29  |              |           |                  |             |               |                | TRAWL                  |
| 11            | ISCA 03      | 1716       | BC        | CTD       |               | 049          | 55° 38.61        | 132° 19.06 | 643          |           |                  | 1           |               |                | T: 9.41 S: 29.55       |
|               |              | 1721       | BO        |           |               |              | 55° 38.70        | 132° 19.06 |              | 250       |                  |             |               |                | BOT@10m - SAL/CHL/NUIS |
|               |              | 1728       | CH        |           |               |              | 55° 38.81        | 132° 19.00 |              |           |                  |             |               |                |                        |
|               |              | 1734       | BC        | NET       |               | 050          | 55° 38.87        | 132° 18.99 |              | 150       |                  |             |               |                | BONGO                  |
|               |              | 1752       | BC        | TRAWL     |               | 051          | 55 40 09         | 132 19 57  |              |           |                  |             |               |                | TRAWL                  |
| 11            | ISCA 04      | 1906       | BC        | CTD       |               | 052          | 55° 45.14        | 132° 21.07 | 567          |           |                  | 1           |               |                | T: 9.42 S: 29.42       |
|               |              | 1912       | BO        |           |               |              | 55° 45.27        | 132° 21.06 |              | 250       |                  |             |               |                | BOT@10m - SAL/CHL/NUIS |
|               |              | 1917       | CH        |           |               |              | 55° 45.38        | 132° 21.04 |              |           |                  |             |               |                |                        |
|               |              | 1925       | BC        | NET       |               | 053          | 55° 45.57        | 132° 21.00 |              | 150       |                  |             |               |                | BONGO                  |
|               |              | 1949       | BC        | TRAWL     |               | 054          | 55 47 21         | 132 21 70  |              |           |                  |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |            |              |           |                  |             |               |                |                        |
|               |              |            |           |           |               |              |                  |            |              |           |                  |             |               |                |                        |

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## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <i>OCTOBER</i> |              |            | Year <i>2008</i> |           |               | Ship <i>W.E. RICKER</i> |           |            | Cruise ID <i>2008-15</i> |           |                |             |               |                |                        |
|----------------------|--------------|------------|------------------|-----------|---------------|-------------------------|-----------|------------|--------------------------|-----------|----------------|-------------|---------------|----------------|------------------------|
| Day                  | Station Name | Time (UTC) | Time Code        | Cast Type | Firing Method | Event Number            | Position  |            | Bottom Depth             | Max Depth | Sample Numbers | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|                      |              |            |                  |           |               |                         | Latitude  | Longitude  |                          |           |                |             |               |                |                        |
| 11                   | ISCA 05      | 2110       | BE               | CTD       |               | 055                     | 55° 49.07 | 132° 17.44 | 237                      |           |                | 1           | H.M.          |                | T: 9.91 S: 27.60       |
|                      |              | 2115       | BO               |           |               |                         | 55° 49.10 | 132° 17.38 | 270-200                  | 190       |                |             |               |                | BOT@10m - SAL/CAL/NUTS |
|                      |              | 2119       | EN               |           |               |                         | 55° 49.13 | 132° 17.32 |                          |           |                |             |               |                |                        |
|                      |              | 2123       | BE               | NET       |               | 056                     | 55° 49.14 | 132° 17.27 |                          | 150       |                |             |               |                | BONGO                  |
|                      |              | 2140       | BE               | TRAWL     |               | 057                     | 55° 49.62 | 132° 16.16 |                          |           |                |             |               |                | TRAWL                  |
| 11                   | ISCA 06      | 2226       | BE               | CTD       |               | 058                     | 55° 51.11 | 132° 11.82 | 313                      |           |                |             |               |                | T: 9.91 S: 27.96       |
|                      |              | 2231       | BO               |           |               |                         | 55° 51.15 | 132° 11.75 |                          | 250       |                |             |               |                | BOT@10m - SAL/CAL/NUTS |
|                      |              | 2236       | EN               |           |               |                         | 55° 51.18 | 132° 11.72 |                          |           |                |             |               |                |                        |
|                      |              | 2246       | BE               | NET       |               | 059                     | 55° 51.22 | 132° 11.65 |                          |           |                |             |               |                | BONGO                  |
|                      |              | 2306       | BE               | TRAWL     |               | 060                     | 55° 51.83 | 132° 10.7  |                          |           |                |             |               |                | TRAWL                  |
| 12                   | ISCA 07      | 0032       | BE               | CTD       |               | 061                     | 55° 54.37 | 132° 04.79 | 213                      |           |                | 1           |               |                | T: 9.28 S: 25.47       |
|                      |              | 0036       | BO               |           |               |                         | 55° 54.42 | 132° 04.70 |                          | 200       |                |             |               |                | BOT@10m - SAL/CAL/NUTS |
|                      |              | 0041       | EN               |           |               |                         | 55° 54.43 | 132° 04.67 |                          |           |                |             |               |                |                        |
|                      |              | 0044       | BE               | NET       |               | 062                     | 55° 54.44 | 132° 04.66 |                          | 150       |                |             |               |                | BONGO                  |
|                      |              | 0100       | BE               | TRAWL     |               | 063                     | 55° 54.92 | 132° 4.9   |                          |           |                |             |               |                | TRAWL                  |
|                      |              |            |                  |           |               |                         |           |            |                          |           |                |             |               |                |                        |
|                      |              |            |                  |           |               |                         |           |            |                          |           |                |             |               |                |                        |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month OCTOBER |              |            |           | Year 2008 |               |              | Ship W.E. RICKER |             |              |           | Cruise ID 2008-15 |             |               |                |                         |
|---------------|--------------|------------|-----------|-----------|---------------|--------------|------------------|-------------|--------------|-----------|-------------------|-------------|---------------|----------------|-------------------------|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position         |             | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments                |
|               |              |            |           |           |               |              | Latitude         | Longitude   |              |           |                   |             |               |                |                         |
| 12            | 15EA08       | 1359       | BE        | CTD       |               | 064          | 56° 24. 63       | 132° 35. 87 | 244          |           |                   | 1           | H.M.          |                | T: 9.67 S: 28.45        |
|               |              | 1404       | BO        |           |               |              | 56° 24. 66       | 132° 35. 92 |              | 230       |                   |             |               |                | BOT @ 10m. SAL/CAL/NUIS |
|               |              | 1409       | EN        |           |               |              | 56° 24. 66       | 132° 35. 96 |              |           |                   |             |               |                |                         |
|               |              | 1413       | BE        | NET       |               | 065          | 56° 24. 60       | 132° 35. 91 |              | 150       |                   |             |               |                | BONGO                   |
|               |              | 1439       | BE        | TRAWL     |               | 066          | 56 24 65         | 132 35. 29  |              |           |                   |             |               |                | TRAWL                   |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                         |
| 12            | 15EA 09      | 1605       | BE        | CTD       |               | 067          | 56° 29. 81       | 132° 40. 57 | 113          |           |                   | 1           |               |                | T: 8.86 S: 25.34        |
|               |              | 1608       | BO        |           |               |              | 56° 29. 81       | 132° 40. 58 |              | 100       |                   |             |               |                | BOT @ 10m. SAL/CAL/NUIS |
|               |              | 1611       | EN        |           |               |              | 56° 29. 82       | 132° 40. 57 |              |           |                   |             |               |                |                         |
|               |              | 1615       | BE        | NET       |               | 068          | 56° 29. 83       | 132° 40. 56 |              | 100       |                   |             |               |                | BONGO                   |
|               |              | 1636       | BE        | TRAWL     |               | 069          | 56 29 51         | 132 42 39   |              |           |                   |             |               |                | TRAWL                   |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                         |
| 12            | 15EA 10      | 1747       | BE        | CTD       |               | 070          | 56° 29. 24       | 132° 54. 25 | 116          |           |                   | 1           |               |                | T: 8.76 S: 25.37        |
|               |              | 1749       | BO        |           |               |              | 56° 29. 27       | 132° 54. 25 |              | 105       |                   |             |               |                | BOT @ 10m. SAL/CAL/NUIS |
|               |              | 1753       | EN        |           |               |              | 56° 29. 31       | 132° 54. 21 |              |           |                   |             |               |                |                         |
|               |              | 1758       | BE        | NET       |               | 071          | 56° 29. 35       | 132° 54. 11 |              |           |                   |             |               |                | BONGO                   |
|               |              | 18:13      | BE        | TRAWL     |               | 072          | 56 29 17         | 132 55 35   |              |           |                   |             |               |                | TRAWL                   |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                         |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                         |

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## DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month OCTOBER |              |            |           | Year 2008 |               |              | Ship W.E. RICKER |            |              |           | Cruise ID 2008-15 |             |               |                |                        |
|---------------|--------------|------------|-----------|-----------|---------------|--------------|------------------|------------|--------------|-----------|-------------------|-------------|---------------|----------------|------------------------|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position         |            | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|               |              |            |           |           |               |              | Latitude         | Longitude  |              |           |                   |             |               |                |                        |
| 12            | ISCA 11      | 2003       | BE        | CTD       |               | 073          | 56° 22.25        | 133° 15.89 | 242          |           |                   | 1           | H.M.          |                | T: 8.28 S: 30.37       |
|               |              | 2008       | BO        |           |               |              | 56° 22.29        | 133° 15.86 |              | 230       |                   |             |               |                | BOT@10m - SAL/CHL/NUIS |
|               |              | 2013       | EN        |           |               |              | 56° 22.33        | 133° 15.83 |              |           |                   |             |               |                |                        |
|               |              | 2016       | BE        | NET       |               | 074          | 56° 22.31        | 133° 15.82 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 2033       | BE        | TRAWL     |               | 075          | 56 22 13         | 133 17 17  |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |            |              |           |                   |             |               |                |                        |
| 12            | ISCA 12      | 2202       | BE        | CTD       |               | 076          | 56° 22.48        | 133° 33.60 | 337          |           |                   | 1           |               |                | T: 8.35 S: 30.00       |
|               |              | 2207       | BO        |           |               |              | 56° 22.50        | 133° 33.68 |              | 250       |                   |             |               |                | BOT@10m - SAL/CHL/NUIS |
|               |              | 2212       | EN        |           |               |              | 56° 22.50        | 133° 33.80 |              |           |                   |             |               |                |                        |
|               |              | 2216       | BE        | NET       |               | 077          | 56° 22.53        | 133° 33.78 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 2233       | BE        | TRAWL     |               | 078          | 56 22 67         | 133 35 02  |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |            |              |           |                   |             |               |                |                        |
| 13            | ISCA 13      | 0035       | BE        | CTD       |               | 079          | 56° 13.98        | 133° 46.32 | 310          |           |                   | 1           |               |                | T: 8.80 S: 29.63       |
|               |              | 0040       | BO        |           |               |              | 56° 13.94        | 133° 46.31 |              | 250       |                   |             |               |                | BOT@10m - SAL/CHL/NUIS |
|               |              | 0045       | EN        |           |               |              | 56° 13.92        | 133° 46.25 |              |           |                   |             |               |                |                        |
|               |              | 0048       | BE        | NET       |               | 080          | 56° 13.93        | 133° 46.23 |              |           |                   |             |               |                | BONGO                  |
|               |              | 0106       | BE        | TRAWL     |               | 081          | 56 13 01         | 133 46 15  |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |            |              |           |                   |             |               |                |                        |
|               |              |            |           |           |               |              |                  |            |              |           |                   |             |               |                |                        |

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| Month OCTOBER |              |            |           | Year 2008 |               |              | Ship W.G. RICKER |             |              |           | Cruise ID 2008-15 |             |               |                |                        |
|---------------|--------------|------------|-----------|-----------|---------------|--------------|------------------|-------------|--------------|-----------|-------------------|-------------|---------------|----------------|------------------------|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position         |             | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|               |              |            |           |           |               |              | Latitude         | Longitude   |              |           |                   |             |               |                |                        |
| 13            | FI 08        | 1403       | BE        | CTD       |               | 082          | 54° 42. 24       | 133° 58. 57 | 199          |           |                   | 1           | 14.M.         |                | T: 10.64 S: 31.96      |
|               |              | 1407       | BO        |           |               |              | 54° 42. 21       | 133° 58. 63 |              | 190       |                   |             |               |                | BOT@10m - SAL/CAL/NUTS |
|               |              | 1412       | EN        |           |               |              | 54° 42. 20       | 133° 58. 68 |              |           |                   |             |               |                | NO BONGO               |
|               |              | 1424       | BE        | TRAWL     |               | 083          | 54 42 26         | 133 58 63   |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                        |
| 13            | FI 07        | 1524       | BE        | CTD       |               | 084          | 54° 42. 96       | 133° 50. 48 | 219          |           |                   | 1           |               |                | T: 10.77 S: 31.99      |
|               |              | 1529       | BO        |           |               |              | 54° 42. 93       | 133° 50. 47 |              | 210       |                   |             |               |                | BOT@10m - SAL/CAL/NUTS |
|               |              | 1534       | EN        |           |               |              | 54° 42. 91       | 133° 50. 50 |              |           |                   |             |               |                | NO BONGO               |
|               |              | 1545       | BE        | TRAWL     |               | 085          | 54 43 04         | 133 49 46   |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                        |
| 13            | FI 06        | 1640       | BE        | CTD       |               | 086          | 54° 43. 48       | 133° 42. 61 | 210          |           |                   | 1           |               |                | T: 10.79 S: 32.04      |
|               |              | 1644       | BO        |           |               |              | 54° 43. 46       | 133° 42. 59 |              | 200       |                   |             |               |                | BOT@10m - SAL/CAL/NUTS |
|               |              | 1649       | EN        |           |               |              | 54° 43. 42       | 133° 42. 56 |              |           |                   |             |               |                |                        |
|               |              | 1653       | BE        | NET       |               | 087          | 54° 43. 41       | 133° 42. 59 |              |           |                   |             |               |                | * BONGO                |
|               |              | 1714       | BE        | TRAWL     |               | 088          | 54 43 41         | 133 41 42   |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                        |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                        |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                        |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                        |

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## INSTITUTE OF OCEAN SCIENCES

| Month <u>OCTOBER</u> |              |            | Year <u>2008</u> |           |                 | Ship <u>W.E. RICKER</u> |            |            | Cruise ID <u>2008-15</u> |           |                |             |               |                |                           |
|----------------------|--------------|------------|------------------|-----------|-----------------|-------------------------|------------|------------|--------------------------|-----------|----------------|-------------|---------------|----------------|---------------------------|
| Day                  | Station Name | Time (UTC) | Time Code        | Cast Type | Firing Method   | Event Number            | Position   |            | Bottom Depth             | Max Depth | Sample Numbers | #of Bottles | Watch Keepers | Trans. Cleaned | Comments                  |
|                      |              |            |                  |           |                 |                         | Latitude   | Longitude  |                          |           |                |             |               |                |                           |
| 13                   | F1 05        | 1923       | BE               | CTD       | 2 <sup>nd</sup> | 089                     | 54° 43.81  | 133° 35.59 | 198                      |           |                | 1           | Hrs.          |                | T: 10.87 S: 32.03         |
|                      |              | 1927       | BO               |           |                 |                         | 54° 43.76  | 133° 35.51 |                          | 185       |                |             |               |                | Bottle 10m - SAL/CAL/NUTS |
|                      |              | 1931       | GN               |           |                 |                         | 54° 43.72  | 133° 35.45 |                          |           |                |             |               |                |                           |
|                      |              | 1935       | BE               | NET       | 3 <sup>rd</sup> | 090                     | 54° 43.69  | 133° 35.35 |                          | 150       |                |             |               |                | BONGO                     |
|                      |              | 1810       | BE               | TRAWL     | 1 <sup>st</sup> | 091                     | 54° 43.67  | 133° 35.77 |                          |           |                |             |               |                | TRAWL                     |
| 13                   | F1 04        | 2033       | BE               | CTD       |                 | 092                     | 54° 45.25  | 133° 26.49 | 139                      |           |                | 1           |               |                | T: 10.88 S: 32.07         |
|                      |              | 2035       | BO               |           |                 |                         | 54° 45.25  | 133° 26.50 |                          | 125       |                |             |               |                | Bottle 10m - SAL/CAL/NUTS |
|                      |              | 2038       | GN               |           |                 |                         | 54° 45.25  | 133° 26.51 |                          |           |                |             |               |                |                           |
|                      |              | 2041       | BE               | NET       |                 | 093                     | 54° 45.23  | 133° 26.51 |                          | 130       |                |             |               |                | BONGO                     |
|                      |              | 2059       | BE               | TRAWL     |                 | 094                     | 54° 45.32  | 133° 25.60 |                          |           |                |             |               |                | TRAWL                     |
| 13                   | F1 03        | 2150       | BE               | CTD       |                 | 095                     | 54° 45.87  | 133° 18.93 | 111                      |           |                | 1           |               |                | T: 10.91 S: 31.93         |
|                      |              | 2153       | BO               |           |                 |                         | 54° 45.84  | 133° 18.92 |                          | 100       |                |             |               |                | Bottle 10m - SAL/CAL/NUTS |
|                      |              | 2155       | GN               |           |                 |                         | 54° 45.80  | 133° 18.97 |                          |           |                |             |               |                |                           |
|                      |              |            | BE               | NET       |                 |                         | 54° 45.    | 133° 18.   |                          |           |                |             |               |                | <del>BONGO</del> NO BONGO |
|                      |              | 2206       | BE               | TRAWL     |                 | 096                     | 54° 45.906 | 133° 17.82 |                          |           |                |             |               |                | TRAWL                     |
|                      |              |            |                  |           |                 |                         |            |            |                          |           |                |             |               |                |                           |
|                      |              |            |                  |           |                 |                         |            |            |                          |           |                |             |               |                |                           |

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| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position         |           | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|               |              |            |           |           |               |              | Latitude         | Longitude |              |           |                   |             |               |                |                        |
| 14            | ISCA 15      | 1553       | BE        | CTD       |               | 106          | 56°30.02         | 134°33.48 | 510          |           |                   | 1           | H.M.          |                | T: 7.86 S: 30.85       |
|               |              | 1559       | BO        |           |               |              | 56°30.06         | 134°33.37 |              | 250       |                   |             |               |                | BOT@10m - SAL/CHL/NUIS |
|               |              | 1605       | EN        |           |               |              | 56°30.06         | 134°33.33 |              |           |                   |             |               |                |                        |
|               |              | 1608       | BE        | NET       |               | 107          | 56°30.02         | 134°33.32 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 1630       | BE        | TRAWL     |               | 108          | 56°30.8          | 134°33.13 |              |           |                   |             |               |                | TRAWL                  |
| 14            | ISCA 16      | 1741       | BE        | CTD       |               | 109          | 56°36.04         | 134°26.29 | 500          |           |                   | 1           |               |                | T: 8.54 S: 30.67       |
|               |              | 1746       | BO        |           |               |              | 56°36.03         | 134°26.24 |              | 250       |                   |             |               |                | BOT@10m - SAL/CHL/NUIS |
|               |              | 1752       | EN        |           |               |              | 56°36.04         | 134°26.21 |              |           |                   |             |               |                |                        |
|               |              | 1756       | BE        | NET       |               | 110          | 56°36.02         | 134°26.21 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 1813       | BE        | TRAWL     |               | 111          | 56°36.74         | 134°26.14 |              |           |                   |             |               |                | TRAWL                  |
| 14            | ISCA 17      | 1925       | BE        |           |               | 112          | 56°43.43         | 134°33.58 | 682          |           |                   | 1           |               |                | T: 8.17 S: 30.56       |
|               |              | 1930       | BO        |           |               |              | 56°43.45         | 134°33.60 |              | 250       |                   |             |               |                | BOT@10m - SAL/CHL/NUIS |
|               |              | 1935       | EN        |           |               |              | 56°43.46         | 134°33.59 |              |           |                   |             |               |                |                        |
|               |              | 1938       | BE        |           |               | 113          | 56°43.47         | 134°33.58 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 1957       | BE        |           |               | 114          | 56°44.65         | 134°33.93 |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |           |              |           |                   |             |               |                |                        |
|               |              |            |           |           |               |              |                  |           |              |           |                   |             |               |                |                        |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <i>OCTOBER</i> |              |            | Year <i>2008</i> |           |               | Ship <i>W.G. Ricker</i> |            |             | Cruise ID <i>2008-15</i> |           |                |             |               |                |                        |
|----------------------|--------------|------------|------------------|-----------|---------------|-------------------------|------------|-------------|--------------------------|-----------|----------------|-------------|---------------|----------------|------------------------|
| Day                  | Station Name | Time (UTC) | Time Code        | Cast Type | Firing Method | Event Number            | Position   |             | Bottom Depth             | Max Depth | Sample Numbers | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|                      |              |            |                  |           |               |                         | Latitude   | Longitude   |                          |           |                |             |               |                |                        |
| 14                   | 15CA 18      | 2109       | BC               | CTD       |               | 115                     | 56° 50. 68 | 134° 27. 94 | 295                      |           |                | 1           | H.M.          |                | T: 8.39 S: 30.57       |
|                      |              | 21 14      | BO               |           |               |                         | 56° 50. 73 | 134° 27. 84 |                          | 250       |                |             |               |                | BOT@10m - SAL/CAL/NOTS |
|                      |              | 21 19      | EN               |           |               |                         | 56° 50. 78 | 134° 27. 77 |                          |           |                |             |               |                |                        |
|                      |              | 21 23      | BC               | NET       |               | 116                     | 56° 50. 84 | 134° 27. 68 |                          | 150       |                |             |               |                | BONGO                  |
|                      |              | 21 40      | BE               | TRAWL     |               | 117                     | 56 51 92   | 134 27 23   |                          |           |                |             |               |                | TRAWL                  |
|                      |              |            |                  |           |               |                         |            |             |                          |           |                |             |               |                |                        |
| 14                   | 15CA 19      | 2303       | BC               | CTD       |               | 118                     | 56° 55. 63 | 134° 37. 69 | 606                      |           |                | 1           |               |                | T: 7.55 S: 30.77       |
|                      |              | 23 08      | BO               |           |               |                         | 56° 55. 59 | 134° 37. 73 |                          | 250       |                |             |               |                | BOT@10m - SAL/CAL/NOTS |
|                      |              | 23 13      | EN               |           |               |                         | 56° 55. 55 | 134° 37. 69 |                          |           |                |             |               |                |                        |
|                      |              | 23 17      | BC               | NET       |               | 119                     | 56° 55. 56 | 134° 37. 66 |                          | 150       |                |             |               |                | BONGO                  |
|                      |              | 23 34      | BE               | TRAWL     |               | 120                     | 56 56 21   | 134 38 09.  |                          |           |                |             |               |                | TRAWL                  |
|                      |              |            |                  |           |               |                         |            |             |                          |           |                |             |               |                |                        |
| 15                   | 15CA 20      | 0049       | BC               | CTD       |               | 121                     | 57° 02. 14 | 134° 37. 95 | 230                      |           |                |             |               |                | T: 7.51 S: 30.36       |
|                      |              | 00 54      | BO               |           |               |                         | 57° 02. 11 | 134° 37. 85 |                          | 220       |                |             |               |                | BOT@10m - SAL/CAL/NOTS |
|                      |              | 00 58      | EN               |           |               |                         | 57° 02. 09 | 134° 37. 80 |                          |           |                |             |               |                |                        |
|                      |              | 01 09      | BC               |           |               | 122                     | 57° 02. 24 | 134° 38. 43 |                          | 150       |                |             |               |                | BONGO                  |
|                      |              | 01 25      | BE               |           |               | 123                     | 57 02 83   | 134 38 43.  |                          |           |                |             |               |                | TRAWL                  |
|                      |              |            |                  |           |               |                         |            |             |                          |           |                |             |               |                |                        |
|                      |              |            |                  |           |               |                         |            |             |                          |           |                |             |               |                |                        |

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## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <i>OCTOBER</i> |              |            |           | Year <i>2008</i> |               |              | Ship <i>W.E. RICKER</i> |            |              |           | Cruise ID <i>2008-15</i> |             |               |                |                        |
|----------------------|--------------|------------|-----------|------------------|---------------|--------------|-------------------------|------------|--------------|-----------|--------------------------|-------------|---------------|----------------|------------------------|
| Day                  | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position                |            | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|                      |              |            |           |                  |               |              | Latitude                | Longitude  |              |           |                          |             |               |                |                        |
| 15                   | ISGA 21      | 1407       | BC        | CTD              |               | 124          | 56° 56.15               | 132° 56.39 | 115          |           |                          | 1           | H.M.          |                | T: 6.86 S: 28.90       |
|                      |              | 1410       | BO        |                  |               |              | 56° 56.15               | 132° 56.37 |              | 105       |                          |             |               |                | BOT@10m - SAL/CHL/NUTS |
|                      |              | 1413       | EN        |                  |               |              | 56° 56.14               | 132° 56.41 |              |           |                          |             |               |                |                        |
|                      |              | 1417       | BE        | NET              |               | 125          | 56° 56.09               | 132° 56.45 |              | 105       |                          |             |               |                | BONGO                  |
|                      |              | 1437       | BE        | TRAWL            |               | 126          | 56 56 80                | 132 57 49  |              |           |                          |             |               |                | TRAWL                  |
| 15                   | ISGA 22      | 1538       | BC        | CTD              |               | 127          | 57° 02.18               | 133° 04.95 | 143          |           |                          |             |               |                | T: 6.79 S: 28.83       |
|                      |              | 1541       | BO        |                  |               |              | 57° 02.20               | 133° 04.97 |              | 130       |                          |             |               |                | BOT@10m - SAL/CHL/NUTS |
|                      |              | 1544       | EN        |                  |               |              | 57° 02.24               | 133° 04.96 |              |           |                          |             |               |                |                        |
|                      |              | 1550       | BC        | NET              |               | 128          | 57° 02.23               | 133° 04.95 |              |           |                          |             |               |                | BONGO                  |
|                      |              | 1608       | BE        | TRAWL            |               | 129          | 57 02 62                | 133 06 41  |              |           |                          |             |               |                | TRAWL                  |
| 15                   | ISGA 23      | 1716       | BC        | CTD              |               | 130          | 57° 05.04               | 133° 18.94 | 152          |           |                          | 1           |               |                | T: 7.13 S: 30.00       |
|                      |              | 1719       | BO        |                  |               |              | 57° 05.03               | 133° 18.94 |              | 147       |                          |             |               |                | BOT@10m - SAL/CHL/NUTS |
|                      |              | 1723       | EN        |                  |               |              | 57° 05.03               | 133° 18.94 |              |           |                          |             |               |                |                        |
|                      |              | 1726       | BE        | NET              |               | 131          | 57° 05.04               | 133° 18.94 |              | 140       |                          |             |               |                | BONGO                  |
|                      |              | 1748       | BE        | TRAWL            |               | 132          | 57 05.35                | 133 20.67  |              |           |                          |             |               |                | TRAWL                  |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                        |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                        |

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| Month OCTOBER |              |            |           | Year 2008 |               |              | Ship W. E. RICKER |            |              |           | Cruise ID 2008-15 |             |               |                |                        |
|---------------|--------------|------------|-----------|-----------|---------------|--------------|-------------------|------------|--------------|-----------|-------------------|-------------|---------------|----------------|------------------------|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position          |            | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|               |              |            |           |           |               |              | Latitude          | Longitude  |              |           |                   |             |               |                |                        |
| 15            | ISEA 24      | 1903       | BG        | CTD       |               | 133          | 57° 08.10         | 133° 30.83 | 135          |           |                   | 1           | H.M.          |                | T: 7.12 S: 29.68       |
|               |              | 1906       | BO        |           |               |              | 57° 08.09         | 133° 30.85 |              | 125       |                   |             |               |                | BOT 10m - SAL/CAL/NUTS |
|               |              | 1909       | EN        |           |               |              | 57° 08.10         | 133° 30.84 |              |           |                   |             |               |                |                        |
|               |              | 1913       | BG        | NET       |               | 134          | 57° 08.11         | 133° 30.83 |              | 135       |                   |             |               |                | BONGO                  |
|               |              | 1931       | BG        | TRAWL     |               | 135          | 57° 08.382        | 133° 32.64 |              |           |                   |             |               |                | TRAWL                  |
| 15            | ISEA 25      | 2045       | BG        | CTD       |               | 136          | 57° 08.81         | 133° 45.88 | 229          |           |                   | 1           |               |                | T: 7.50 S: 29.99       |
|               |              | 2049       | BO        |           |               |              | 57° 08.81         | 133° 45.84 |              | 220       |                   |             |               |                | BOT 10m - SAL/CAL/NUTS |
|               |              | 2054       | EN        |           |               |              | 57° 08.80         | 133° 45.75 |              |           |                   |             |               |                |                        |
|               |              | 2057       | BG        | NET       |               | 137          | 57° 08.81         | 133° 45.72 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 2113       | BG        | TRAWL     |               | 138          | 57° 09.078        | 133° 46.74 |              |           |                   |             |               |                | TRAWL                  |
| 15            | ISEA 26      | 2235       | BG        | CTD       |               | 139          | 57° 07.90         | 134° 01.54 | 307          |           |                   | 1           |               |                | T: 7.66 S: 30.07       |
|               |              | 2240       | BO        |           |               |              | 57° 07.93         | 134° 01.46 |              | 250       |                   |             |               |                | BOT 10m - SAL/CAL/NUTS |
|               |              | 2246       | EN        |           |               |              | 57° 07.94         | 134° 01.44 |              |           |                   |             |               |                |                        |
|               |              | 2250       | BG        | NET       |               | 140          | 57° 07.96         | 134° 01.52 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 2306       | BG        | TRAWL     |               | 141          | 57° 07.62         | 134° 02.74 |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                   |            |              |           |                   |             |               |                |                        |
|               |              |            |           |           |               |              |                   |            |              |           |                   |             |               |                |                        |

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| Month <u>OCTOBER</u>                                        |              |            |           | Year <u>2008</u> |               |              | Ship <u>W.G. RICKER</u> |            |              |           | Cruise ID <u>2008-15</u> |             |               |                |                        |
|-------------------------------------------------------------|--------------|------------|-----------|------------------|---------------|--------------|-------------------------|------------|--------------|-----------|--------------------------|-------------|---------------|----------------|------------------------|
| Day                                                         | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position                |            | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|                                                             |              |            |           |                  |               |              | Latitude                | Longitude  |              |           |                          |             |               |                |                        |
| 16                                                          | 15CA 27      | 00 29      | BC        | CTD              |               | 142          | 57° 00.30               | 134° 12.54 | 325          |           |                          | 1           | H.M.          |                | T: 8.00 S: 30.46       |
|                                                             |              | 00 35      | BO        |                  |               |              | 57° 00.32               | 134° 12.57 |              | 250       |                          |             |               |                | BOT@10m - SAL/CAL/NUTS |
|                                                             |              | 00 40      | EN        |                  |               |              | 57° 00.31               | 134° 12.59 |              |           |                          |             |               |                |                        |
|                                                             |              | 00 43      | BE        | NET              |               | 143          | 57° 00.29               | 134° 12.61 |              | 150       |                          |             |               |                | BONGO                  |
|                                                             |              | 01 00      | BE        | TRAWL            |               | 144          | 56 59 86                | 134 13.88  |              |           |                          |             |               |                | TRAWL                  |
| <del>16 15CA 27 01 00 BE TRAWL 144 56 59 86 134 13.88</del> |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                        |
| 16                                                          | 15CA 28      | 14 03      | BC        | CTD              |               | 145          | 58° 15.55               | 135° 32.79 | 155          |           |                          | 1           |               |                | T: 7.41 S: 29.35       |
|                                                             |              | 14 06      | BO        |                  |               |              | 58° 15.54               | 135° 32.78 |              | 145       |                          |             |               |                | BOT@10m - SAL/CAL/NUTS |
|                                                             |              | 14 10      | EN        |                  |               |              | 58° 15.55               | 135° 32.80 |              |           |                          |             |               |                |                        |
|                                                             |              | 14 14      | BC        | NET              |               | 146          | 58.15 57                | 135° 32.82 |              | 148       |                          |             |               |                | BONGO                  |
|                                                             |              | 14 35      | BC        | TRAWL            |               | 147          | 58 15 36                | 135 32 81  |              |           |                          |             |               |                | TRAWL                  |
| 16                                                          | 15CA 29      | 15 48      | BE        | CTD              |               | 148          | 58° 13.39               | 135° 19.58 | 264          |           |                          | 1           |               |                | T: 7.81 S: 28.82       |
|                                                             |              | 15 53      | BO        |                  |               |              | 58° 13.43               | 135° 19.57 |              | 250       |                          |             |               |                | BOT@10m - SAL/CAL/NUTS |
|                                                             |              | 15 59      | EN        |                  |               |              | 58° 13.43               | 135° 19.51 |              |           |                          |             |               |                |                        |
|                                                             |              | 16 02      | BE        | NET              |               | 149          | 58° 13.42               | 135° 19.51 |              |           |                          |             |               |                | BONGO                  |
|                                                             |              | 16 22      | BE        | TRAWL            |               | 150          | 58 13 28                | 135 18 20  |              | 150       |                          |             |               |                | TRAWL                  |
|                                                             |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                        |
|                                                             |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                        |

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## INSTITUTE OF OCEAN SCIENCES

| Month <i>OCTOBER</i> |              |            |           | Year <i>2008</i> |               |              | Ship <i>W.E. RICKER</i> |            |              |           | Cruise ID <i>2008-15</i> |             |               |                |                       |
|----------------------|--------------|------------|-----------|------------------|---------------|--------------|-------------------------|------------|--------------|-----------|--------------------------|-------------|---------------|----------------|-----------------------|
| Day                  | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position                |            | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments              |
|                      |              |            |           |                  |               |              | Latitude                | Longitude  |              |           |                          |             |               |                |                       |
| 16                   | ISCA 30      | 1744       | BE        | CTD              |               | 151          | 58° 09.74               | 135° 03.23 | 197          |           |                          | 1           | W.M.          |                | T: 7.68 S: 26.89      |
|                      |              | 1748       | BO        |                  |               |              | 58° 09.75               | 135° 03.22 |              | 190       |                          |             |               |                | BOT@10m. SAL/CHL/NUTS |
|                      |              | 1752       | EN        |                  |               |              | 58° 09.74               | 135° 03.20 |              |           |                          |             |               |                |                       |
|                      |              | 1756       | BE        | NET              |               | 152          | 58° 09.74               | 135° 03.19 |              | 150       |                          |             |               |                | BONGO                 |
|                      |              | 1815       | BE        | TRAWL            |               | 153          | 58° 09.50               | 135° 02.01 |              |           |                          |             |               |                | TRAWL                 |
| 16                   | ISCA 31      | 1938       | BE        | CTD              |               | 154          | 58° 03.84               | 134° 50.69 | 380          |           |                          | 1           |               |                | T: 7.75 S: 29.17      |
|                      |              | 1943       | BO        |                  |               |              | 58° 03.90               | 134° 50.74 |              | 250       |                          |             |               |                | BOT@10m. SAL/CHL/NUTS |
|                      |              | 1949       | EN        |                  |               |              | 58° 03.99               | 134° 50.80 |              |           |                          |             |               |                |                       |
|                      |              | 1952       | BE        | NET              |               | 155          | 58° 04.02               | 134° 50.92 |              | 150       |                          |             |               |                | BONGO                 |
|                      |              | 2008       | BE        | TRAWL            |               | 156          | 58° 03.47               | 134° 50.63 |              |           |                          |             |               |                | TRAWL                 |
| 16                   | ISCA 32      | 2141       | BE        | CTD              |               | 157          | 57° 53.23               | 134° 47.22 | 488          |           |                          | 1           |               |                | T: 7.72 S: 29.54      |
|                      |              | 2146       | BO        |                  |               |              | 57° 53.22               | 134° 47.17 |              | 250       |                          |             |               |                | BOT@10m. SAL/CHL/NUTS |
|                      |              | 2151       | EN        |                  |               |              | 57° 53.31               | 134° 47.10 |              |           |                          |             |               |                |                       |
|                      |              | 2154       | BE        | NET              |               | 158          | 57° 53.31               | 134° 47.05 |              | 150       |                          |             |               |                | BONGO                 |
|                      |              | 2209       | BE        | TRAWL            |               | 159          | 57° 52.83               | 134° 46.68 |              |           |                          |             |               |                | TRAWL                 |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                       |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                       |

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|----------------------------------------------------------------|--------------|------------|-----------|-----------|---------------|--------------|------------------|------------|--------------|-----------|-------------------|--------------|---------------|----------------|----------------------|
| Day                                                            | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position         |            | Bottom Depth | Max Depth | Sample Numbers    | # of Bottles | Watch Keepers | Trans. Cleaned | Comments             |
|                                                                |              |            |           |           |               |              | Latitude         | Longitude  |              |           |                   |              |               |                |                      |
| 17                                                             | 15EA33       | 0036       | BC        | CTD       |               | 160          | 57° 33.08        | 134° 42.95 | 614          |           |                   | 1            | H.M.          |                | T: 7.63 S: 29.76     |
|                                                                |              | 0041       | BO        |           |               |              | 57° 33.05        | 134° 42.90 |              | 250       |                   |              |               |                | BOTOM - SAL/CAL/NUTS |
|                                                                |              | 0047       | CM        |           |               |              | 57° 33.00        | 134° 42.87 |              |           |                   |              |               |                |                      |
|                                                                |              | 0049       | BC        | NET       |               | 161          | 57° 32.98        | 134° 42.87 |              | 150       |                   |              |               |                | BONGO                |
|                                                                |              | 0109       | BC        | TRAWL     |               | 162          | 57° 31.93        | 134° 42.47 |              |           |                   |              |               |                | TRAWL                |
| <del>17 BOB- 1404 BC CTD 163 55° 58.40 135° 40.07 1240 1</del> |              |            |           |           |               |              |                  |            |              |           |                   |              |               |                |                      |
| 17                                                             | BOB-         | 1404       | BC        | CTD       |               | 163          | 55° 58.40        | 135° 40.07 | 1240         |           |                   | 1            |               |                | T: 10.63 S: 32.20    |
|                                                                |              | 1409       | BO        |           |               |              | 55° 58.36        | 135° 40.05 |              | 250       |                   |              |               | *              | BOTOM - SAL/CAL/NUTS |
|                                                                |              | 1414       | CM        |           |               |              | 55° 58.31        | 135° 40.04 |              |           |                   |              |               |                |                      |
|                                                                |              | 1418       | BC        | NET       |               | 164          | 55° 58.27        | 135° 40.03 |              | 150       |                   |              |               |                | BONGO                |
|                                                                |              | 1440       | BC        | TRAWL     |               | 165          | 55° 58.15        | 135° 39.2  |              |           |                   |              |               |                | TRAWL                |
| 17                                                             | B 07         | 1530       | BC        | CTD       |               | 166          | 56° 00.95        | 135° 36.26 | 906          |           |                   | 1            |               |                | T: 10.72 S: 32.01    |
|                                                                |              | 1535       | BO        |           |               |              | 56° 00.92        | 135° 36.29 |              | 250       |                   |              |               |                | BOTOM - SAL/CAL/NUTS |
|                                                                |              | 1541       | CM        |           |               |              | 56° 00.89        | 135° 36.32 |              |           |                   |              |               |                |                      |
|                                                                |              | 1544       | BC        | NET       |               | 167          | 56° 00.87        | 135° 36.34 |              | 150       |                   |              |               |                | BONGO                |
|                                                                |              | 1603       | BC        | TRAWL     |               | 168          | 56° 01.26        | 135° 36.07 |              |           |                   |              |               |                | TRAWL                |
|                                                                |              |            |           |           |               |              |                  |            |              |           |                   |              |               |                |                      |
|                                                                |              |            |           |           |               |              |                  |            |              |           |                   |              |               |                |                      |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <i>OCTOBER</i> |              |            |           | Year <i>2008</i> |               |              | Ship <i>W.E. RICHCE</i> |             |              |           | Cruise ID <i>2008-15</i> |             |               |                |                        |
|----------------------|--------------|------------|-----------|------------------|---------------|--------------|-------------------------|-------------|--------------|-----------|--------------------------|-------------|---------------|----------------|------------------------|
| Day                  | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position                |             | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|                      |              |            |           |                  |               |              | Latitude                | Longitude   |              |           |                          |             |               |                |                        |
| 17                   | B 06         | 1704       | BE        | CTD              |               | 169          | 56° 03.58               | 135° 28.49  | 306          |           |                          | 1           | H.M.          |                | T: 10.51 S: 31.85      |
|                      |              | 1709       | BO        |                  |               |              | 56° 03.59               | 135° 28.54  |              | 250       |                          |             |               |                | BOT@10m - SAL/CAL/NUTS |
|                      |              | 1714       | EN        |                  |               |              | 56° 03.58               | 135° 28.55  |              |           |                          |             |               |                |                        |
|                      |              | 1718       | BE        | NET              |               | 170          | 56° 03.59               | 135° 28.59  |              | 150       |                          |             |               |                | BONGO                  |
|                      |              | 1730       | BE        | TRAWL            |               | 171          | 56° 04.21               | 135° 28.33  |              |           |                          |             |               |                | TRAWL                  |
|                      |              |            |           |                  |               |              |                         |             |              |           |                          |             |               |                |                        |
| 17                   | B05          | 1852       | BE        | CTD              |               | 172          | 56° 07.17               | 135° 21.70  | 301          |           |                          | 1           |               |                | T: 10.54 S: 31.81      |
|                      |              | 1857       | BO        |                  |               |              | 56° 07.18               | 135° 21.71  |              | 250       |                          |             |               |                | BOT@10m - SAL/CAL/NUTS |
|                      |              | 1902       | EN        |                  |               |              | 56° 07.18               | 135° 21.71  |              |           |                          |             |               |                |                        |
|                      |              | 1906       | BE        | NET              |               | 173          | 56° 07.19               | 135° 21.68  |              | 150       |                          |             |               |                | BONGO                  |
|                      |              | 1915       | BE        | TRAWL            |               | 174          | 56° 07.91               | 135° 20.755 |              |           |                          |             |               |                | TRAWL                  |
|                      |              |            |           |                  |               |              |                         |             |              |           |                          |             |               |                |                        |
| 17                   | B04          | 2002       | BE        | CTD              |               | 175          | 56° 09.59               | 135° 15.47  | 287          |           |                          | 1           |               |                | T: 10.58 S: 31.89      |
|                      |              | 2007       | BO        |                  |               |              | 56° 09.58               | 135° 15.43  |              | 250       |                          |             |               |                | BOT@10m - SAL/CAL/NUTS |
|                      |              | 2013       | EN        |                  |               |              | 56° 09.57               | 135° 15.40  |              |           |                          |             |               |                |                        |
|                      |              | 2016       | BE        | NET              |               | 176          | 56° 09.56               | 135° 15.39  |              | 150       |                          |             |               |                | BONGO                  |
|                      |              | 2034       | BE        | TRAWL            |               | 177          | 56° 10.88               | 135° 13.64  |              |           |                          |             |               |                | TRAWL                  |
|                      |              |            |           |                  |               |              |                         |             |              |           |                          |             |               |                |                        |
|                      |              |            |           |                  |               |              |                         |             |              |           |                          |             |               |                |                        |

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## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month OCTOBER |              |            |           | Year 2008 |               |              | Ship W.E. RICKER |             |              |           | Cruise ID 2008-15 |             |               |                |                        |
|---------------|--------------|------------|-----------|-----------|---------------|--------------|------------------|-------------|--------------|-----------|-------------------|-------------|---------------|----------------|------------------------|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position         |             | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|               |              |            |           |           |               |              | Latitude         | Longitude   |              |           |                   |             |               |                |                        |
| 17            | B03          | 2120       | BC        | CTD       |               | 178          | 56° 12. 20       | 135° 09. 48 | 193          |           |                   | 1           | H.M.          |                | T: 10.50 S: 31.88      |
|               |              | 2123       | BO        |           |               |              | 56° 12. 20       | 135° 09. 46 |              | 180       |                   |             |               |                | BOT@10m - SAL/CHL/NUTS |
|               |              | 2130       | EN        |           |               |              | 56° 12. 19       | 135° 09. 40 |              |           |                   |             |               |                |                        |
|               |              | 21         | BC        | NET       |               | 179          | 56° 12.          | 135° 09.    |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 2147       | BC        | TRAWL     |               | 180          | 56 12. 69        | 135 8. 18   |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                        |
| 17            | B02          | 2237       | BC        | CTD       |               | 181          | 56° 14. 59       | 135° 03. 10 | 131          |           |                   | 1           |               |                | T: 9.52 S: 31.60       |
|               |              | 2240       | BO        |           |               |              | 56° 14. 57       | 135° 03. 08 |              | 120       |                   |             |               |                | BOT@10m - SAL/CHL/NUTS |
|               |              | 2245       | EN        |           |               |              | 56° 14. 55       | 135° 03. 08 |              |           |                   |             |               |                |                        |
|               |              | 22         | BC        | NET       |               | 182          | 56° 14. 54       | 135° 03. 08 |              | 125       |                   |             |               |                | BONGO                  |
|               |              | 2300       | BC        | TRAWL     |               | 183          | 56 14 83         | 135 02. 13  |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                        |
| 18            | B01          | 0036       | BC        | CTD       |               | 184          | 56° 17. 38       | 134° 56. 16 | 142          |           |                   | 1           |               |                | T: 9.44 S: 31.40       |
|               |              | 0039       | BO        |           |               |              | 56° 17. 36       | 134° 56. 16 |              | 130       |                   |             |               |                | BOT@10m - SAL/CHL/NUTS |
|               |              | 0042       | EN        |           |               |              | 56° 17. 34       | 134° 56. 17 |              |           |                   |             |               |                |                        |
|               |              | 0045       | BC        | NET       |               | 185          | 56° 17. 31       | 134° 56. 15 |              | 130       |                   |             |               |                | BONGO                  |
|               |              | 0102       | BC        | TRAWL     |               | 186          | 56 16 61         | 134 56. 00  |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                        |
|               |              |            |           |           |               |              |                  |             |              |           |                   |             |               |                |                        |

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|---------------|--------------|------------|-----------|-----------|---------------|--------------|------------------|------------|--------------|-----------|-------------------|-------------|---------------|----------------|------------------------|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position         |            | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|               |              |            |           |           |               |              | Latitude         | Longitude  |              |           |                   |             |               |                |                        |
| 18            | 15GA 34      | 1851       | BE        | CTD       |               | 187          | 55° 27.60        | 131° 58.44 | 432          |           |                   | 1           | H.M.          |                | T: 9.41 S: 27.22       |
|               |              | 1855       | BO        |           |               |              | 55° 27.59        | 131° 58.48 |              | 250       |                   |             |               |                | BOT@10m - SAL/CHL/NOTS |
|               |              | 1901       | EN        |           |               |              | 55° 27.57        | 131° 58.50 |              |           |                   |             |               |                |                        |
|               |              | 1905       | BE        | NET       |               | 188          | 55° 27.55        | 131° 58.55 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 1925       | BE        | TRAWL     |               | 189          | 55 26.637        | 131 58.603 |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |            |              |           |                   |             |               |                |                        |
| 18            | 15GA 35      | 2040       | BE        | CTD       |               | 190          | 55° 20.16        | 131° 55.07 | 469          |           |                   | 1           |               |                | T: 9.40 S: 29.93       |
|               |              | 2046       | BO        |           |               |              | 55° 20.20        | 131° 54.96 |              | 250       |                   |             |               |                | BOT@10m - SAL/CHL/NOTS |
|               |              | 2051       | EN        |           |               |              | 55° 20.22        | 131° 54.91 |              |           |                   |             |               |                |                        |
|               |              | 2054       | BE        | NET       |               | 191          | 55° 20.23        | 131° 54.86 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 2110       | BE        | TRAWL     |               | 192          | 55 19.82         | 131 54.60  |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |            |              |           |                   |             |               |                |                        |
| 18            | 15GA 36      | 2230       | BE        | CTD       |               | 193          | 55° 12.47        | 131° 52.30 | 425          |           |                   | 1           |               |                | T: 9.33 S: 29.91       |
|               |              | 2235       | BO        |           |               |              | 55° 12.53        | 131° 52.25 |              | 250       |                   |             |               |                | BOT@10m - SAL/CHL/NOTS |
|               |              | 2240       | EN        |           |               |              | 55° 12.57        | 131° 52.18 |              |           |                   |             |               |                |                        |
|               |              | 2243       | BE        | NET       |               | 194          | 55° 12.60        | 131° 52.14 |              | 150       |                   |             |               |                | BONGO                  |
| 19            |              | 00.00      | BE        | TRAWL     |               | 195          | 55 12.184        | 131 51.854 |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |            |              |           |                   |             |               |                |                        |
|               |              |            |           |           |               |              |                  |            |              |           |                   |             |               |                |                        |

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|--------------------------------------------------------------------------------------------------------------|--------------|------------|------------------|-----------|---------------|--------------|--------------------------|-----------|--------------|-----------|--------------------------|-------------|---------------|----------------|---------------------|
| Day                                                                                                          | Station Name | Time (UTC) | Time Code        | Cast Type | Firing Method | Event Number | Position                 |           | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments            |
|                                                                                                              |              |            |                  |           |               |              | Latitude                 | Longitude |              |           |                          |             |               |                |                     |
| 19                                                                                                           | 1560 37      | 0032       | BC               | CTD       |               | 196          | 55°05.93                 | 131°47.79 | 495          |           |                          | 1           | U.M.          |                | T: 9.65 S: 30.13    |
|                                                                                                              |              | 0038       | BO               |           |               |              | 55°05.93                 | 131°47.78 |              | 250       |                          |             |               |                | BOTOM. SAL/CHL/NUIS |
|                                                                                                              |              | 0043       | EN               |           |               |              | 55°05.91                 | 131°47.78 |              |           |                          |             |               |                |                     |
|                                                                                                              |              | 0047       | BC               | NET       |               | 197          | 55°05.87                 | 131°47.85 |              | 150       |                          |             |               |                | BONGO               |
|                                                                                                              |              | 0107       | BC               | TRAWL     |               | 198          | 55°05.30                 | 131°48.16 |              |           |                          |             |               |                | TRAWL               |
| <del>19 1560 37 0032 BC CTD 196 55°05.93 131°47.79 495 250 1 U.M. T: 9.65 S: 30.13 BOTOM. SAL/CHL/NUIS</del> |              |            |                  |           |               |              |                          |           |              |           |                          |             |               |                |                     |
| 19                                                                                                           | 1560 03      | 1408       | BC               | CTD       |               | 199          | 55°07.17                 | 129°56.97 | 414          |           |                          | 1           |               |                | T: 7.83 S: 25.79    |
|                                                                                                              |              | 1413       | BO               |           |               |              | 55°07.18                 | 129°56.97 |              | 250       |                          |             |               |                | BOTOM. SAL/CHL/NUIS |
|                                                                                                              |              | 1418       | EN               |           |               |              | 55°07.17                 | 129°56.97 |              |           |                          |             |               |                |                     |
|                                                                                                              |              | 1422       | BC               | NET       |               | 200          | 55°07.15                 | 129°56.98 |              |           |                          |             |               |                | BONGO               |
|                                                                                                              |              | 1441       | BC               | TRAWL     |               | 201          | 55°06.39                 | 129°57.64 |              |           |                          |             |               |                | TRAWL               |
| <del>19 1560 03 1408 BC CTD 199 55°07.17 129°56.97 414 250 1 T: 7.83 S: 25.79 BOTOM. SAL/CHL/NUIS</del>      |              |            |                  |           |               |              |                          |           |              |           |                          |             |               |                |                     |
| 19                                                                                                           | 1560 04      | 1548       | BC               | CTD       |               | 202          | 54°59.70                 | 130°02.98 | 192          |           |                          | 1           |               |                | T: 8.12 S: 27.00    |
|                                                                                                              |              | 1551       | BO               |           |               |              | 54°59.69                 | 130°02.99 |              | 180       |                          |             |               |                | BOTOM. SAL/CHL/NUIS |
|                                                                                                              |              | 1556       | EN               |           |               |              | 54°59.65                 | 130°03.08 |              |           |                          |             |               |                |                     |
|                                                                                                              |              | 1559       | BC               | NET       |               | 203          | 54°59.68                 | 130°03.10 |              | 150       |                          |             |               |                | BONGO               |
|                                                                                                              |              | 1618       | BC               | TRAWL     |               | 204          | 54°58.92                 | 130°04.04 |              |           |                          |             |               |                | TRAWL               |
| <del>19 1560 04 1548 BC CTD 202 54°59.70 130°02.98 192 180 1 T: 8.12 S: 27.00 BOTOM. SAL/CHL/NUIS</del>      |              |            |                  |           |               |              |                          |           |              |           |                          |             |               |                |                     |
|                                                                                                              |              |            |                  |           |               |              |                          |           |              |           |                          |             |               |                |                     |
|                                                                                                              |              |            |                  |           |               |              |                          |           |              |           |                          |             |               |                |                     |

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|----------------------|--------------|------------|-----------|------------------|---------------|--------------|-------------------------|------------|--------------|-----------|--------------------------|-------------|---------------|----------------|------------------------|
| Day                  | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position                |            | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|                      |              |            |           |                  |               |              | Latitude                | Longitude  |              |           |                          |             |               |                |                        |
| 19                   | IBC 05       | 1729       | BE        | CTD              |               | 205          | 54° 51.92               | 130° 12.21 | 363          |           |                          | 1           | H.M.          |                | T: 8.54 S: 27.28       |
|                      |              | 1734       | BO        |                  |               |              | 54° 51.95               | 130° 12.21 |              | 250       |                          |             |               |                | BOT@10m - SAL/CHL/NUTS |
|                      |              | 1740       | CH        |                  |               |              | 54° 51.99               | 130° 12.20 |              |           |                          |             |               |                |                        |
|                      |              | 1743       | BE        | NET              |               | 206          | 54° 52.00               | 130° 12.18 |              | 150       |                          |             |               |                | BONGO                  |
|                      |              | 1800       | BE        | TRAWL            |               | 207          | 54 51 44                | 130 12 68  |              |           |                          |             |               |                | TRAWL                  |
| 19                   | IBC 06       | 1903       | BE        | CTD              |               | 208          | 54° 47.76               | 130° 17.85 | 418          |           |                          | 1           |               |                | T: 8.61 S: 26.81       |
|                      |              | 1908       | BO        |                  |               |              | 54° 47.73               | 130° 17.81 |              | 250       |                          |             |               |                | BOT@10m - SAL/CHL/NUTS |
|                      |              | 1913       | CH        |                  |               |              | 54° 47.74               | 130° 17.79 |              |           |                          |             |               |                |                        |
|                      |              | 1916       | BE        | NET              |               | 209          | 54° 47.75               | 130° 17.79 |              | 150       |                          |             |               |                | BONGO                  |
|                      |              | 1932       | BE        | TRAWL            |               | 210          | 54 47 14                | 130 18.73  |              |           |                          |             |               |                | TRAWL                  |
| 19                   | IBC 07       | 2026       | BE        | CTD              |               | 211          | 54° 44.06               | 130° 24.57 | 529          |           |                          | 1           |               |                | T: 8.30 S: 26.37       |
|                      |              | 2031       | BO        |                  |               |              | 54° 44.08               | 130° 24.55 |              | 250       |                          |             |               |                | BOT@10m - SAL/CHL/NUTS |
|                      |              | 2036       | CH        |                  |               |              | 54° 44.08               | 130° 24.53 |              |           |                          |             |               |                |                        |
|                      |              | 2039       | BE        | NET              |               | 212          | 54° 44.09               | 130° 24.46 |              |           |                          |             |               |                | BONGO                  |
|                      |              | 2054       | BE        | TRAWL            |               | 213          | 54 43 44                | 130 25.14  |              |           |                          |             |               |                | TRAWL                  |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                        |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                        |

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|----------------------------------------------------------------------------------|--------------|------------|-----------|-----------|---------------|------------------|-----------|------------|-------------------|-----------|----------------|-------------|---------------|----------------|-------------------------|
| Day                                                                              | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number     | Position  |            | Bottom Depth      | Max Depth | Sample Numbers | #of Bottles | Watch Keepers | Trans. Cleaned | Comments                |
|                                                                                  |              |            |           |           |               |                  | Latitude  | Longitude  |                   |           |                |             |               |                |                         |
| 19                                                                               | IBC 08       | 2218       | BE        | CTD       |               | 214              | 54° 36.88 | 130° 33.89 | 377               |           |                | 1           | H.M.          |                | T: 9.42 S: 29.15        |
|                                                                                  |              | 2223       | BO        |           |               |                  | 54° 36.89 | 130° 33.91 |                   | 250       |                |             |               |                | BOT@ 10m - SAL/CAL/NUTS |
|                                                                                  |              | 2229       | EN        |           |               |                  | 54° 36.91 | 130° 33.88 |                   |           |                |             |               |                |                         |
|                                                                                  |              | 2232       | BE        | NET       |               | 215              | 54° 36.97 | 130° 33.89 |                   | 150       |                |             |               |                | BONGO                   |
|                                                                                  |              | 2247       | BE        | TRAWL     |               | 216              | 54° 36.63 | 130° 34.15 |                   |           |                |             |               |                | TRAWL                   |
| 20                                                                               | IBC 09       | 0037       | BE        | CTD       |               | 217              | 54° 26.66 | 130° 33.93 | 110               |           |                | 1           |               |                | T: 9.56 S: 29.95        |
|                                                                                  |              | 0039       | BO        |           |               |                  | 54° 26.70 | 130° 33.95 |                   | 100       |                |             |               |                | BOT@ 10m - SAL/CAL/NUTS |
|                                                                                  |              | 0042       | EN        |           |               |                  | 54° 26.72 | 130° 33.95 |                   |           |                |             |               |                |                         |
|                                                                                  |              | 0045       | BE        | NET       |               | 218              | 54° 26.75 | 130° 33.93 |                   | 100       |                |             |               |                | BONGO                   |
|                                                                                  |              | 0059       | BE        | TRAWL     |               | 219              | 54° 26.45 | 130° 34.10 |                   |           |                |             |               |                | TRAWL                   |
| <del>20 IBC 10 1406 BE CTD 220 53° 21.09 129° 12.54 454 1 T: 7.96 S: 24.61</del> |              |            |           |           |               |                  |           |            |                   |           |                |             |               |                |                         |
| 20                                                                               | IBC 10       | 1406       | BE        | CTD       |               | 220              | 53° 21.09 | 129° 12.54 | 454               |           |                | 1           |               |                | T: 7.96 S: 24.61        |
|                                                                                  |              | 1411       | BO        |           |               |                  | 53° 21.12 | 129° 12.54 |                   | 250       |                |             |               |                | BOT@ 10m - SAL/CAL/NUTS |
|                                                                                  |              | 1416       | EN        |           |               |                  | 53° 21.12 | 129° 12.55 |                   |           |                |             |               |                |                         |
|                                                                                  |              | 1421       | BE        | NET       |               | 221              | 53° 21.12 | 129° 12.56 |                   |           |                |             |               |                | BONGO                   |
|                                                                                  |              | 1440       | BE        | TRAWL     |               | 222              | 53° 21.5  | 129° 12.3  |                   |           |                |             |               |                | TRAWL                   |
|                                                                                  |              |            |           |           |               |                  |           |            |                   |           |                |             |               |                |                         |
|                                                                                  |              |            |           |           |               |                  |           |            |                   |           |                |             |               |                |                         |

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## DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month OCTOBER |              |            |           | Year 2008 |               |              | Ship W.E. RICKER |            |              |           | Cruise ID 2008-15 |             |               |                |                        |
|---------------|--------------|------------|-----------|-----------|---------------|--------------|------------------|------------|--------------|-----------|-------------------|-------------|---------------|----------------|------------------------|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position         |            | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|               |              |            |           |           |               |              | Latitude         | Longitude  |              |           |                   |             |               |                |                        |
| 20            | IBC 11       | 1608       | BE        | CTD       |               | 223          | 53° 30.53        | 129° 12.34 | 352          |           |                   | 1           | H.M.          |                | T: 7.85 S: 24.17       |
|               |              | 1613       | BO        |           |               |              | 53° 30.50        | 129° 12.33 |              | 250       |                   |             |               |                | BOT@10m - SAL/NUTS     |
|               |              | 1618       | EN        |           |               |              | 53° 30.47        | 129° 12.37 |              |           |                   |             |               |                | NO CHL                 |
|               |              | 1623       | BE        | NET       |               | 224          | 53° 30.46        | 129° 12.39 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 1640       | BE        | TRAWL     |               | 225          | 53 30 99         | 129 12.08  |              |           |                   |             |               |                | TRAWL                  |
| 20            | IBC 12       | 1756       | BE        | CTD       |               | 226          | 53° 38.27        | 129° 11.02 | 364          |           |                   | 1           |               |                | T: 8.05 S: 23.81       |
|               |              | 1801       | BO        |           |               |              | 53° 38.29        | 129° 11.05 |              | 250       |                   |             |               |                | BOT@10m - SAL/CHL/NUTS |
|               |              | 1806       | EN        |           |               |              | 53° 38.33        | 129° 11.07 |              |           |                   |             |               |                |                        |
|               |              | 1810       | BE        | NET       |               | 227          | 53° 38.34        | 129° 11.08 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 1828       | BE        | TRAWL     |               | 228          | 53 38.90         | 129 10.25  |              |           |                   |             |               |                | TRAWL                  |
| 20            | IBC 13       | 1952       | BE        | CTD       |               | 229          | 53° 44.67        | 128° 59.01 | 287          |           |                   | 1           |               |                | T: 8.06 S: 23.99       |
|               |              | 1957       | BO        |           |               |              | 53° 44.68        | 128° 59.02 |              | 250       |                   |             |               |                | BOT@10m - SAL/NUTS     |
|               |              | 2003       | EN        |           |               |              | 53° 44.70        | 128° 59.04 |              |           |                   |             |               |                | NO CHL                 |
|               |              | 2006       | BE        | NET       |               | 230          | 53° 44.71        | 128° 59.05 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 2020       | BE        | TRAWL     |               | 231          | 53 45 13         | 128 58 29  |              |           |                   |             |               |                | TRAWL                  |
|               |              |            |           |           |               |              |                  |            |              |           |                   |             |               |                |                        |
|               |              |            |           |           |               |              |                  |            |              |           |                   |             |               |                |                        |

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## DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <u>OCTOBER</u> |              |            |           | Year <u>2008</u> |               |              | Ship <u>W.E. RICKER</u> |            |              |           | Cruise ID <u>2008-15</u> |             |               |                |                      |
|----------------------|--------------|------------|-----------|------------------|---------------|--------------|-------------------------|------------|--------------|-----------|--------------------------|-------------|---------------|----------------|----------------------|
| Day                  | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position                |            | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments             |
|                      |              |            |           |                  |               |              | Latitude                | Longitude  |              |           |                          |             |               |                |                      |
| 20                   | IBC 14       | 2134       | BC        | CTD              |               | 232          | 53° 49.97               | 128° 47.92 | 314          |           |                          | 1           | H.M.          |                | T: 8.07 S: 22.44     |
|                      |              | 2139       | BO        |                  |               |              | 53° 49.95               | 128° 47.91 |              | 250       |                          |             |               |                | BOT@10m SAL/CHL/NUTS |
|                      |              | 2144       | EN        |                  |               |              | 53° 49.94               | 128° 47.88 |              |           |                          |             |               |                |                      |
|                      |              | 2147       | BC        | NET              |               | 233          | 53° 49.93               | 128° 47.87 |              | 150       |                          |             |               |                | BONGO                |
|                      |              | 2202       | BC        | TRAWL            |               | 234          | 53 50 52                | 128 47.51  |              |           |                          |             |               |                | TRAWL                |
| 21                   | IBC 15       | 1438       | BC        | CTD              |               | 235          | 53° 57.80               | 128° 40.75 | 170          |           |                          | 1           |               |                | T: 7.42 S: 21.31     |
|                      |              | 1441       | BO        |                  |               |              | 53° 57.80               | 128° 40.72 |              | 160       |                          |             |               |                | BOT@10m SAL/CHL/NUTS |
|                      |              | 1445       | EN        |                  |               |              | 53° 57.79               | 128° 40.68 |              |           |                          |             |               |                |                      |
|                      |              | 1447       | BC        | NET              |               | 236          | 53° 57.77               | 128° 40.67 |              | 150       |                          |             |               |                | BONGO                |
|                      |              | 1505       | BC        | TRAWL            |               | 237          | 53 57 17                | 128 41.14  |              |           |                          |             |               |                | TRAWL                |
| 21                   | IBC 16       | 1624       | BC        | CTD              |               | 238          | 53° 49.31               | 128° 43.68 | 235          |           |                          | 1           |               |                | T: 8.12 S: 20.19     |
|                      |              | 1628       | BO        |                  |               |              | 53° 49.28               | 128° 43.73 |              | 225       |                          |             |               |                | BOT@10m SAL/NUTS     |
|                      |              | 1634       | EN        |                  |               |              | 53° 49.26               | 128° 43.80 |              |           |                          |             |               |                | NO CHL               |
|                      |              | 1637       | BC        | NET              |               | 239          | 53° 49.26               | 128° 43.82 |              | 150       |                          |             |               |                | BONGO                |
|                      |              | 1654       | BC        | TRAWL            |               | 240          | 53 48 82                | 128 44.77  |              |           |                          |             |               |                | TRAWL                |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                      |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                      |

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## INSTITUTE OF OCEAN SCIENCES

| Month <i>OCTOBER</i> |              |            |           | Year <i>2008</i> |               |              | Ship <i>W.E. RICKER</i> |            |              |           | Cruise ID <i>2008-15</i> |             |               |                |                        |
|----------------------|--------------|------------|-----------|------------------|---------------|--------------|-------------------------|------------|--------------|-----------|--------------------------|-------------|---------------|----------------|------------------------|
| Day                  | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position                |            | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|                      |              |            |           |                  |               |              | Latitude                | Longitude  |              |           |                          |             |               |                |                        |
| 21                   | IBC 17       | 1816       | BG        | CTD              |               | 241          | 53°41.53                | 128°48.75  | 289          |           |                          | 1           | 4.m.          |                | T: 7.45 S: 21.52       |
|                      |              | 1821       | BO        |                  |               |              | 53°41.51                | 128°48.74  |              | 250       |                          |             |               |                | BOT@10m - SAL/CHL/NUTS |
|                      |              | 1826       | EN        |                  |               |              | 53°41.52                | 128°48.74  |              |           |                          |             |               |                |                        |
|                      |              | 1830       | BG        | NET              |               | 242          | 53°41.53                | 128°48.74  |              | 150       |                          |             |               |                | BONGO                  |
|                      |              | 1849       | BG        | TRAWL            |               | 243          | 53°41.22                | 128°49.373 |              |           |                          |             |               |                | TRAWL                  |
| 21                   | IBC 18       | 2013       | BG        | CTD              |               | 244          | 53°34.40                | 128°48.08  | 170          |           |                          | 1           |               |                | T: 7.67 S: 20.61       |
|                      |              | 2016       | BO        |                  |               |              | 53°34.40                | 128°48.08  |              | 160       |                          |             |               |                | BOT@10m - SAL/CHL/NUTS |
|                      |              | 2020       | EN        |                  |               |              | 53°34.40                | 128°48.07  |              |           |                          |             |               |                | NO CHL                 |
|                      |              | 2023       | BG        | NET              |               | 245          | 53°34.40                | 128°48.05  |              | 150       |                          |             |               |                | BONGO                  |
|                      |              | 2038       | BG        | TRAWL            |               | 246          | 53°33.99                | 128°47.65  |              |           |                          |             |               |                | TRAWL                  |
| 21                   | IBC 19       | 2200       | BG        | CTD              |               | 247          | 53°33.20                | 128°51.45  | 167          |           |                          | 1           |               |                | T: 7.76 S: 26.90       |
|                      |              | 2203       | BO        |                  |               |              | 53°33.19                | 128°51.45  |              | 155       |                          |             |               |                | BOT@10m - SAL/CHL/NUTS |
|                      |              | 2207       | EN        |                  |               |              | 53°33.18                | 128°51.42  |              |           |                          |             |               |                |                        |
|                      |              | 2210       | BG        | NET              |               | 248          | 53°33.19                | 128°51.40  |              | 150       |                          |             |               |                | BONGO                  |
|                      |              | 2225       | BG        | TRAWL            |               | 249          | 53°32.90                | 128°52.374 |              |           |                          |             |               |                | TRAWL                  |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                        |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                        |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <u>OCTOBER</u>                                                                                                                                                                                                   |              |            |           | Year <u>2008</u> |               |              | Ship <u>W.E. RICHARDS</u> |             |              |           | Cruise ID <u>2008-15</u> |             |               |                |                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|-----------|------------------|---------------|--------------|---------------------------|-------------|--------------|-----------|--------------------------|-------------|---------------|----------------|------------------------|
| Day                                                                                                                                                                                                                    | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position                  |             | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|                                                                                                                                                                                                                        |              |            |           |                  |               |              | Latitude                  | Longitude   |              |           |                          |             |               |                |                        |
| 22                                                                                                                                                                                                                     | IBC 20       | 00 26      | BC        | CTD              |               | 250          | 53° 28. 20                | 128° 58. 27 | 108          |           |                          | 1           | H.M.          |                | T: 8.14 S: 27.85       |
|                                                                                                                                                                                                                        |              | 00 29      | BO        |                  |               |              | 53° 28. 20                | 128° 58. 28 |              | 100       |                          |             |               |                | BOT 10m - SAL/NUTS     |
|                                                                                                                                                                                                                        |              | 00 31      | CM        |                  |               |              | 53° 28. 21                | 128° 58. 31 |              |           |                          |             |               |                | <u>NO CAL</u>          |
|                                                                                                                                                                                                                        |              | 00 35      | BE        | NET              |               | 251          | 53° 29. 24                | 128° 58. 36 |              |           |                          |             |               |                | BONGO                  |
|                                                                                                                                                                                                                        |              | 00 49      | BE        | TRAWL            |               | 252          | 53 27 71                  | 128 57 74   |              |           |                          |             |               |                | TRAWL                  |
| <del>22 IBC 21 14 05 BE CTD 253 52° 04. 82 127° 54 30 201 190 14 09 BO 52° 04. 77 127° 54. 28 14 14 CM 52° 04. 76 127° 54. 35 14 17 BE NET 254 52° 04. 74 127° 54. 37 150 14 32 BE TRAWL 255 52 05. 24 127 54. 3</del> |              |            |           |                  |               |              |                           |             |              |           |                          |             |               |                |                        |
| 22                                                                                                                                                                                                                     | IBC 21       | 14 05      | BE        | CTD              |               | 253          | 52° 04. 82                | 127° 54 30  | 201          |           |                          | 1           |               |                | T: 8.98 S: 26.59       |
|                                                                                                                                                                                                                        |              | 14 09      | BO        |                  |               |              | 52° 04. 77                | 127° 54. 28 |              | 190       |                          |             |               |                | BOT 10m - SAL/CAL/NUTS |
|                                                                                                                                                                                                                        |              | 14 14      | CM        |                  |               |              | 52° 04. 76                | 127° 54. 35 |              |           |                          |             |               |                |                        |
|                                                                                                                                                                                                                        |              | 14 17      | BE        | NET              |               | 254          | 52° 04. 74                | 127° 54. 37 |              | 150       |                          |             |               |                | BONGO                  |
|                                                                                                                                                                                                                        |              | 14 32      | BE        | TRAWL            |               | 255          | 52 05. 24                 | 127 54. 3   |              |           |                          |             |               |                | TRAWL                  |
| 22                                                                                                                                                                                                                     | IBC 22       | 16 01      | BC        | CTD              |               | 256          | 52° 14. 33                | 127° 47. 59 | 506          |           |                          | 1           |               |                | T: 8.85 S: 21.38       |
|                                                                                                                                                                                                                        |              | 16 06      | BO        |                  |               |              | 52° 14. 32                | 127° 47. 61 |              | 250       |                          |             |               |                | BOT 10m - SAL/NUTS     |
|                                                                                                                                                                                                                        |              | 16 12      | CM        |                  |               |              | 52° 14. 32                | 127° 47. 62 |              |           |                          |             |               |                | <u>NO CAL</u>          |
|                                                                                                                                                                                                                        |              | 16 16      | BE        | NET              |               | 257          | 52° 14. 30                | 127° 47. 60 |              | 150       |                          |             |               |                | BONGO                  |
|                                                                                                                                                                                                                        |              | 16 33      | BE        | TRAWL            |               | 258          | 52 14 82                  | 127 46 83   |              |           |                          |             |               |                | TRAWL                  |

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## INSTITUTE OF OCEAN SCIENCES

| Month <u>OCTOBER</u> |              |            |           | Year <u>2008</u> |               |              | Ship <u>W. E. RICKER</u> |            |              |           | Cruise ID <u>2008-5</u> |             |               |                |                        |
|----------------------|--------------|------------|-----------|------------------|---------------|--------------|--------------------------|------------|--------------|-----------|-------------------------|-------------|---------------|----------------|------------------------|
| Day                  | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position                 |            | Bottom Depth | Max Depth | Sample Numbers          | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|                      |              |            |           |                  |               |              | Latitude                 | Longitude  |              |           |                         |             |               |                |                        |
| 22                   | IBC 23       | 1801       | BC        | CTD              |               | 259          | 52° 19.07                | 127° 31.58 | 267          |           |                         | 1           | H.M.          |                | T: 8.44 S: 15.91       |
|                      |              | 1807       | BO        |                  |               |              | 52° 19.08                | 127° 31.64 |              | 250       |                         |             |               |                | BOT@10m - SAL/CHL/NUTS |
|                      |              | 1812       | EN        |                  |               |              | 52° 19.07                | 127° 31.77 |              |           |                         |             |               |                |                        |
|                      |              | 1816       | BE        | NET              |               | 260          | 52° 19.07                | 127° 31.80 |              | 150       |                         |             |               |                | BONGO                  |
|                      |              | 1833       | BE        | TRAWL            |               | 261          | 52° 19.29                | 127° 30.98 |              |           |                         |             |               |                | TRAWL                  |
| 22                   | IBC 24       | 2023       | BC        | CTD              |               | 262          | 52° 26.86                | 127° 15.59 | 528          |           |                         | 1           |               |                | T: 8.61 S: 19.69       |
|                      |              | 2029       | BO        |                  |               |              | 52° 26.84                | 127° 15.61 |              | 250       |                         |             |               |                | BOT@10m - SAL/CHL/NUTS |
|                      |              | 2035       | EN        |                  |               |              | 52° 26.83                | 127° 15.65 |              |           |                         |             |               |                | NO CHL                 |
|                      |              | 2038       | BC        | NET              |               | 263          | 52° 26.84                | 127° 15.68 |              | 150       |                         |             |               |                | BONGO                  |
|                      |              | 2052       | BC        | TRAWL            |               | 264          | 52° 26.71                | 127° 15.12 |              |           |                         |             |               |                | TRAWL                  |
| 22                   | IBC 25       | 2208       | BC        | CTD              |               | 265          | 52° 20.16                | 127° 10.75 | 550          |           |                         | 1           |               |                | T: 8.59 S: 19.65       |
|                      |              | 2214       | BO        |                  |               |              | 52° 20.10                | 127° 10.73 |              | 250       |                         |             |               |                | BOT@10m - SAL/CHL/NUTS |
|                      |              | 2219       | EN        |                  |               |              | 52° 20.07                | 127° 10.72 |              |           |                         |             |               |                |                        |
|                      |              | 2221       | BC        | NET              |               | 266          | 52° 20.05                | 127° 10.71 |              | 150       |                         |             |               |                | BONGO                  |
|                      |              | 2340       | BC        | TRAWL            |               | 267          | 52° 19.44                | 127° 11.47 |              |           |                         |             |               |                | TRAWL                  |

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|----------------------|--------------|------------|-----------|------------------|---------------|--------------|-------------------------|------------|--------------|-----------|--------------------------|-------------|---------------|----------------|------------------------|
| Day                  | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position                |            | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|                      |              |            |           |                  |               |              | Latitude                | Longitude  |              |           |                          |             |               |                |                        |
| 23                   | IBC 26       | 0040       | BE        | CTD              |               | 268          | 52° 11.08               | 127° 29.63 | 565          |           |                          | 1           | H.M.          |                | T: 7.98 S: 20.71       |
|                      |              | 0045       | BO        |                  |               |              | 52° 11.09               | 127° 29.61 |              | 250       |                          |             |               |                | BOT@10m - SAL/NUTS     |
|                      |              | 0050       | EN        |                  |               |              | 52° 11.12               | 127° 29.91 |              |           |                          |             |               |                | NO CHL                 |
|                      |              | 0053       | BE        | NET              |               | 269          | 52° 11.23               | 127° 29.90 |              | 150       |                          |             |               |                | BONGO                  |
|                      |              | 0109       | BE        | TRAWL            |               | 270          | 52 10.08                | 127 29 64  |              |           |                          |             |               |                | TRAWL                  |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                        |
| 23                   | QCST 01      | 1402       | BE        | CTD              |               | 271          | 50° 48.14               | 127° 25.57 | 170          |           |                          | 1           |               |                | T: 8.45 S: 31.31       |
|                      |              | 1405       | BO        |                  |               |              | 50° 48.15               | 127° 25.56 |              | 160       |                          |             |               |                | BOT@10m - SAL/CHL/NUTS |
|                      |              | 1409       | EN        |                  |               |              | 50° 48.14               | 127° 25.74 |              |           |                          |             |               |                |                        |
|                      |              | 1412       | BE        | NET              |               | 272          | 50° 48.11               | 127° 25.70 |              | 150       |                          |             |               |                | BONGO                  |
|                      |              | 1435       | BE        | TRAWL            |               | 273          | 50 47.8                 | 127 23.8   |              |           |                          |             |               |                | TRAWL                  |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                        |
| 23                   | QCST 02      | 1549       | BE        | CTD              |               | 274          | 50° 48.38               | 127° 11.60 | 147          |           |                          | 1           |               |                | T: 8.23 S: 30.52       |
|                      |              | 1552       | BO        |                  |               |              | 50° 48.38               | 127° 11.56 |              | 135       |                          |             |               |                | BOT@10m - SAL/NUTS     |
|                      |              | 1555       | EN        |                  |               |              | 50° 48.38               | 127° 11.80 |              |           |                          |             |               |                | NO CHL                 |
|                      |              | 1558       | BE        | NET              |               | 275          | 50° 48.39               | 127° 11.79 |              | 140       |                          |             |               |                | BONGO                  |
|                      |              | 1618       | BE        | TRAWL            |               | 276          | 50 48.03                | 127 10.61  |              |           |                          |             |               |                | TRAWL                  |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                        |
|                      |              |            |           |                  |               |              |                         |            |              |           |                          |             |               |                |                        |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month OCTOBER |              |            |           | Year 2008 |               |              | Ship W. E. RICKER |            |              |           | Cruise ID 2008-15 |             |               |                |                       |
|---------------|--------------|------------|-----------|-----------|---------------|--------------|-------------------|------------|--------------|-----------|-------------------|-------------|---------------|----------------|-----------------------|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position          |            | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments              |
|               |              |            |           |           |               |              | Latitude          | Longitude  |              |           |                   |             |               |                |                       |
| 23            | QCST 03      | 1737       | BE        | CTD       |               | 277          | 50° 46.26         | 126° 58.63 | 174          |           |                   | 1           | H.M.          |                | T: 8.34 S: 31.17      |
|               |              | 1741       | BO        |           |               |              | 50° 46.25         | 126° 58.60 |              | 165       |                   |             |               |                | BOTOM - SAL/CAL/NOTES |
|               |              | 1745       | CH        |           |               |              | 50° 46.24         | 126° 58.61 |              |           |                   |             |               |                |                       |
|               |              | 1748       | BG        | NET       |               | 278          | 50° 46.02         | 126° 58.57 |              | 150       |                   |             |               |                | BONGO                 |
|               |              | 1804       | BE        | TRAWL     |               | 279          | 50° 45.63         | 126° 57.82 |              |           |                   |             |               |                | TRAWL                 |
| 23            | QCST 04      | 1924       | BG        | CTD       |               | 280          | 50° 40.85         | 126° 49.92 | 176          |           |                   | 1           |               |                | T: 8.47 S: 31.05      |
|               |              | 1928       | BO        |           |               |              | 50° 40.77         | 126° 49.87 |              | 165       |                   |             |               |                | BOTOM - SAL/NOTES     |
|               |              | 1932       | CH        |           |               |              | 50° 40.69         | 126° 49.81 |              |           |                   |             |               |                | NO CHL                |
|               |              | 1936       | BE        | NET       |               | 281          | 50° 40.60         | 126° 49.70 |              | 150       |                   |             |               |                | BONGO                 |
|               |              | 1951       | BE        | TRAWL     |               | 282          | 50° 40.71         | 126° 49.96 |              |           |                   |             |               |                | TRAWL                 |
| 23            | JS 01        | 2135       | BG        | CTD       |               | 283          | 50° 32.22         | 126° 40.34 | 321          |           |                   | 1           |               |                | T: 9.19 S: 31.01      |
|               |              | 2140       | BO        |           |               |              | 50° 32.25         | 126° 40.43 |              | 250       |                   |             |               |                | BOTOM - SAL/CAL/NOTES |
|               |              | 2145       | CH        |           |               |              | 50° 32.31         | 126° 40.60 |              |           |                   |             |               |                |                       |
|               |              | 2148       | BG        | NET       |               | 284          | 50° 32.34         | 126° 40.69 |              | 150       |                   |             |               |                | BONGO                 |
|               |              | 2202       | BE        | TRAWL     |               | 285          | 50° 32.15         | 126° 40.30 |              |           |                   |             |               |                | TRAWL                 |

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|---------------|--------------|------------|-----------|-----------|---------------|--------------|------------------|-------------|--------------|-----------|-------------------|-------------|---------------|----------------|------------------------|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position         |             | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|               |              |            |           |           |               |              | Latitude         | Longitude   |              |           |                   |             |               |                |                        |
| 23            | JS 02        | 2315       | BE        | CTD       |               | 286          | 50° 30. 61       | 126° 30. 86 | 355          |           |                   | 1           | H.M.          |                | T: 9.03 S: 30.79       |
|               |              | 23 20      | BO        |           |               |              | 50° 30. 60       | 126° 30. 95 |              | 250       |                   |             |               |                | BOT@10m - SAL/CHL/NOTS |
|               |              | 23 28      | EN        |           |               |              | 50° 30. 61       | 126° 31. 03 |              |           |                   |             |               |                | NO CHL                 |
|               |              | 23         | BE        | NET       |               | 287          | 50° 30. 62       | 126° 31. 10 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 23 42      | BE        | TRAWL     |               | 288          | 50 30 53         | 126 30 53   |              |           |                   |             |               |                | TRAWL                  |
| 24            | JS 03        | 0054       | BE        | CTD       |               | 289          | 50° 30. 43       | 126° 20. 97 | 290          |           |                   | 1           |               |                | T: 9.07 S: 30.73       |
|               |              | 0059       | BO        |           |               |              | 50° 30. 45       | 126° 20. 97 |              | 250       |                   |             |               |                | BOT@10m - SAL/CHL/NOTS |
|               |              | 01 04      | EN        |           |               |              | 50° 30. 45       | 126° 20. 98 |              |           |                   |             |               |                |                        |
|               |              | 01 07      | BE        | NET       |               | 290          | 50° 30. 46       | 126° 20. 98 |              | 150       |                   |             |               |                | BONGO                  |
|               |              | 01 23      | BE        | TRAWL     |               | 291          | 50 30. 47        | 126 20. 26  |              |           |                   |             |               |                | TRAWL                  |
| 24            | GS 01        | 1414       | BE        | CTD       |               | 292          | 49° 26. 16       | 124° 20. 51 | 322          |           |                   | 1           |               |                | T: 10.53 S: 28.27      |
|               |              | 14 19      | BO        |           |               |              | 49° 26. 19       | 124° 20. 48 |              | 250       |                   |             |               |                | BOT@10m - SAL/CHL/NOTS |
|               |              | 14 24      | EN        |           |               |              | 49° 26. 21       | 124° 20. 47 |              |           |                   |             |               |                |                        |
|               |              | 14 27      | BE        | NET       |               | 293          | 49° 26. 19       | 124° 20. 47 |              |           |                   |             |               |                | BONGO                  |
|               |              | 14 32      | BE        | TRAWL     |               | 294          | 19 26. 20        | 124 21 6    |              |           |                   |             |               |                | TRAWL                  |

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|----------------------|--------------|------------|-----------|------------------|---------------|--------------|------------|-------------------------|--------------|-----------|----------------|--------------------------|---------------|----------------|-----------------------|
| Day                  | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position   |                         | Bottom Depth | Max Depth | Sample Numbers | #of Bottles              | Watch Keepers | Trans. Cleaned | Comments              |
|                      |              |            |           |                  |               |              | Latitude   | Longitude               |              |           |                |                          |               |                |                       |
| 24                   | GS 02        | 1548       | BE        | CTD              |               | 295          | 49° 26. 75 | 124° 31. 24             | 255          |           |                | 1                        | 14.m.         |                | T: 10.35 S: 28.75     |
|                      |              | 1553       | BO        |                  |               |              | 49° 26. 79 | 124° 31. 28             |              | 245       |                |                          |               |                | BOT@10m. SAL/NUTS     |
|                      |              | 1558       | EN        |                  |               |              | 49° 26. 79 | 124° 31. 27             |              |           |                |                          |               |                | NO CHL                |
|                      |              | 1601       | BE        | NET              |               | 296          | 49° 26. 80 | 124° 31. 28             |              | 150       |                |                          |               |                | BONGO                 |
|                      |              | 1619       | BE        | TRAWL            |               | 297          | 49° 27. 52 | 124° 31. 03             |              |           |                |                          |               |                | TRAWL                 |
| 24                   | GS 03        | 1722       | BE        |                  |               | 298          | 49° 33. 23 | 124° 26. 75             | 138          |           |                |                          |               |                | T: 10.44 S: 28.57     |
|                      |              | 1724       | BO        |                  |               |              | 49° 33. 24 | 124° 26. 73             |              | 125       |                |                          |               |                | BOT@10m. SAL/CHL/NUTS |
|                      |              | 1728       | EN        |                  |               |              | 49° 33. 25 | 124° 26. 71             |              |           |                |                          |               |                |                       |
|                      |              | 1731       | BE        |                  |               | 299          | 49° 33. 27 | 124° 26. 65             |              | 130       |                |                          |               |                | BONGO                 |
|                      |              | 1746       | BE        |                  |               | 300          | 49° 33. 24 | 124° 27. 21             |              |           |                |                          |               |                | TRAWL                 |
| 24                   | GS 04        | 1908       | BE        |                  |               | 301          | 49° 38. 47 | 124° 32. 45             | 279          |           |                | 1                        |               |                | T: 10.45 S: 28.66     |
|                      |              | 1913       | BO        |                  |               |              | 49° 38. 57 | 124° 32. 45             |              | 250       |                |                          |               |                | BOT@10m. SAL/NUTS     |
|                      |              | 1918       | EN        |                  |               |              | 49° 38. 53 | 124° 32. 44             |              |           |                |                          |               |                | NO CHL                |
|                      |              | 1921       | BE        |                  |               | 302          | 49° 38. 53 | 124° 32. 45             |              | 150       |                |                          |               |                | BONGO                 |
|                      |              | 1937       | BE        |                  |               | 303          | 49° 38. 37 | 124° 33. 98             |              |           |                |                          |               |                | TRAWL                 |

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|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | P | O | M | P | O | F | F | O | N | D | O | W | N | C | A | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month OCTOBER |              |            |           | Year 2008 |               |              | Ship W. E. RICKER |             |              |           |                | Cruise ID 2008-15 |               |                |                        |  |
|---------------|--------------|------------|-----------|-----------|---------------|--------------|-------------------|-------------|--------------|-----------|----------------|-------------------|---------------|----------------|------------------------|--|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position          |             | Bottom Depth | Max Depth | Sample Numbers | #of Bottles       | Watch Keepers | Trans. Cleaned | Comments               |  |
|               |              |            |           |           |               |              | Latitude          | Longitude   |              |           |                |                   |               |                |                        |  |
| 24            | GS 05        | 2041       | BE        | CTD       |               | 304          | 49° 36. 37        | 124° 42. 20 | 122          |           |                | 1                 | 14.m.         |                | T: 10.21 S: 28.98      |  |
|               |              | 20 44      | BO        |           |               |              | 49° 36. 37        | 124° 42. 19 |              | 110       |                |                   |               |                | BOT@10m - SAL/CAL/NOTS |  |
|               |              | 20 47      | EN        |           |               |              | 49° 36. 38        | 124° 42. 15 |              |           |                |                   |               |                |                        |  |
|               |              | 20 49      | BE        | NET       |               | 305          | 49° 36. 42        | 124° 42. 12 |              |           |                |                   |               |                | BONGO                  |  |
|               |              | 21 03      | BE        | TRAWL     |               | 306          | 49 37 139         | 124 41 85   |              |           |                |                   |               |                | TRAWL                  |  |
|               |              |            |           |           |               |              |                   |             |              |           |                |                   |               |                |                        |  |
| 24            | GS 06        | 2205       | BE        | CTD       |               | 307          | 49° 42. 96        | 124° 40. 43 | 328          |           |                | 1                 |               |                | T: 10.64 S: 28.62      |  |
|               |              | 2210       | BO        |           |               |              | 49° 42. 96        | 124° 40. 45 |              | 250       |                |                   |               |                | BOT@10m - SAL/NOTS     |  |
|               |              | 2215       | EN        |           |               |              | 49° 42. 95        | 124° 40. 42 |              |           |                |                   |               |                | (NO CAL)               |  |
|               |              | 2217       | BE        | NET       |               | 308          | 49° 42. 95        | 124° 40. 43 |              |           |                |                   |               |                | BONGO                  |  |
|               |              | 2233       | BE        | TRAWL     |               | 309          | 49 43 06          | 124 41 71   |              |           |                |                   |               |                | TRAWL                  |  |
|               |              |            |           |           |               |              |                   |             |              |           |                |                   |               |                |                        |  |
| 25            | GS 07        | 0026       | BE        | CTD       |               | 310          | 49 44. 32         | 124 49. 17  | 145          |           |                | 1                 |               |                | T: 10.53 S: 28.72      |  |
|               |              | 0029       | BO        |           |               |              | 49° 44. 31        | 124° 49. 18 |              | 135       |                |                   |               |                | BOT@10m - SAL/CAL/NOTS |  |
|               |              | 0032       | EN        |           |               |              | 49° 44. 31        | 124° 49. 20 |              |           |                |                   |               |                |                        |  |
|               |              | 0035       | BE        | NET       |               | 311          | 49° 44. 31        | 124° 49. 20 |              | 1         |                |                   |               |                | BONGO                  |  |
|               |              | 0049       | BE        | TRAWL     |               | 312          | 49 44. 92         | 124 49. 57  |              |           |                |                   |               |                | TRAWL                  |  |
|               |              |            |           |           |               |              |                   |             |              |           |                |                   |               |                |                        |  |
|               |              |            |           |           |               |              |                   |             |              |           |                |                   |               |                |                        |  |

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## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

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|----------------------|--------------|------------|------------------|-----------|---------------|-------------------------|-----------|------------|--------------------------|-----------|----------------|-------------|---------------|----------------|------------------------|
| Day                  | Station Name | Time (UTC) | Time Code        | Cast Type | Firing Method | Event Number            | Position  |            | Bottom Depth             | Max Depth | Sample Numbers | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|                      |              |            |                  |           |               |                         | Latitude  | Longitude  |                          |           |                |             |               |                |                        |
| 25                   | GS 08        | 0151       | BE               | CTD       |               | 313                     | 49° 50.38 | 124° 52.75 | 322                      |           |                | 1           | H.M.          |                | T:10.40 S:28.84        |
|                      |              | 0157       | BO               |           |               |                         | 49° 50.45 | 124° 52.73 |                          | 250       |                |             |               |                | BOT@10m - SAL/NOTS     |
|                      |              | 0202       | EN               |           |               |                         | 49° 50.50 | 124° 52.66 |                          |           |                |             |               |                | NO CHL NO TRAWL        |
|                      |              | 0206       | BE               | NET       |               | 314                     | 49° 50.55 | 124° 52.63 |                          | 150       |                |             |               |                | BONGO                  |
| 25                   | GS 09        | 0304       | BE               | CTD       |               | 315                     | 49° 47.33 | 124° 43.17 | 213                      |           |                | 1           |               |                | T:10.62 S:28.34        |
|                      |              | 0309       | BO               |           |               |                         | 49° 47.32 | 124° 43.14 |                          | 200       |                |             |               |                | BOT@10m - SAL/CHL/NOTS |
|                      |              | 0313       | EN               |           |               |                         | 49° 47.33 | 124° 43.11 |                          |           |                |             |               |                | NO TRAWL               |
|                      |              | 0321       | BE               | NET       |               | 316                     | 49° 47.33 | 124° 43.06 |                          | 150       |                |             |               |                | BONGO                  |
| 25                   | GS 10        | 0409       | BE               | CTD       |               | 317                     | 49° 49.48 | 124° 35.23 | 281                      |           |                | 1           |               |                | T:10.71 S:28.17        |
|                      |              | 0414       | BO               |           |               |                         | 49° 49.51 | 124° 35.22 |                          | 250       |                |             |               |                | BOT@10m - SAL/NET      |
|                      |              | 0419       | EN               |           |               |                         | 49° 49.53 | 124° 35.20 |                          |           |                |             |               |                | NO CHL NO TRAWL        |
|                      |              | 0421       | BE               | NET       |               | 318                     | 49° 49.56 | 124° 35.17 |                          | 150       |                |             |               |                | BONGO                  |
|                      |              |            |                  |           |               |                         |           |            |                          |           |                |             |               |                |                        |
|                      |              |            |                  |           |               |                         |           |            |                          |           |                |             |               |                |                        |
|                      |              |            |                  |           |               |                         |           |            |                          |           |                |             |               |                |                        |
|                      |              |            |                  |           |               |                         |           |            |                          |           |                |             |               |                |                        |
|                      |              |            |                  |           |               |                         |           |            |                          |           |                |             |               |                |                        |
|                      |              |            |                  |           |               |                         |           |            |                          |           |                |             |               |                |                        |
|                      |              |            |                  |           |               |                         |           |            |                          |           |                |             |               |                |                        |
|                      |              |            |                  |           |               |                         |           |            |                          |           |                |             |               |                |                        |

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|----------------------|--------------|------------|-----------|------------------|---------------|--------------|-------------------------|-------------|--------------|-----------|--------------------------|-------------|---------------|----------------|------------------------|
| Day                  | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position                |             | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments               |
|                      |              |            |           |                  |               |              | Latitude                | Longitude   |              |           |                          |             |               |                |                        |
| 25                   | GS 11        | 1403       | BE        | CTD              |               | 319          | 49° 43. 84              | 124° 24. 15 | 196          |           |                          | 1           | H.T.          |                | T: 10.66 S: 27.40      |
|                      |              | 1407       | BO        |                  |               |              | 49° 43. 84              | 124° 24. 11 |              | 185       |                          |             |               |                | BOT@10m - SAL/CAL/NOTS |
|                      |              | 1411       | EN        |                  |               |              | 49° 43. 84              | 124° 24. 10 |              |           |                          |             |               |                |                        |
|                      |              | 1414       | BE        | NET              |               | 320          | 49° 43. 86              | 124° 24. 14 |              | 150       |                          |             |               |                | BONGO                  |
|                      |              | 1431       | BE        | TRAWL            |               | 321          | 49 43 64                | 124 22 84   |              |           |                          |             |               |                | TRAWL                  |
| 25                   | GS 12        | 1529       | BE        | CTD              |               | 322          | 49° 42. 30              | 124° 14. 91 | 269          |           |                          | 1           |               |                | T: 10.63 S: 25.50      |
|                      |              | 1535       | BO        |                  |               |              | 49° 42. 28              | 124° 15. 01 |              | 250       |                          |             |               |                | BOT@10m - SAL/NOTS     |
|                      |              | 1540       | EN        |                  |               |              | 49° 42. 26              | 124° 15. 08 |              |           |                          |             |               |                | NO CAL                 |
|                      |              | 1543       | BE        | NET              |               | 323          | 49° 42. 26              | 124° 15. 10 |              | 150       |                          |             |               |                | BONGO                  |
|                      |              | 1559       | BE        | TRAWL            |               | 324          | 49 41. 70               | 124 14. 89  |              |           |                          |             |               |                | TRAWL                  |
| 25                   | GS 13        | 1700       | BE        | CTD              |               | 325          | 49° 35. 79              | 124° 12. 32 | 289          |           |                          | 1           |               |                | T: 10.60 S: 27.05      |
|                      |              | 1705       | BO        |                  |               |              | 49° 35. 76              | 124° 12. 35 |              | 250       |                          |             |               |                | BOT@10m - SAL/CAL/NOTS |
|                      |              | 1710       | EN        |                  |               |              | 49° 35. 77              | 124° 12. 38 |              |           |                          |             |               |                |                        |
|                      |              | 1713       | BE        | NET              |               | 326          | 49° 35. 76              | 124° 12. 40 |              | 150       |                          |             |               |                | BONGO                  |
|                      |              | 1730       | BE        | TRAWL            |               | 327          | 49 35 44                | 124 11. 48  |              |           |                          |             |               |                | TRAWL                  |

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## DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <u>OCTOBER</u>      |              |            |           | Year <u>2008</u> |               |              | Ship <u>W.E. RICKER</u> |              |              |           | Cruise ID <u>2008-15</u> |             |               |                |                                                                           |
|---------------------------|--------------|------------|-----------|------------------|---------------|--------------|-------------------------|--------------|--------------|-----------|--------------------------|-------------|---------------|----------------|---------------------------------------------------------------------------|
| Day                       | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position                |              | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments                                                                  |
|                           |              |            |           |                  |               |              | Latitude                | Longitude    |              |           |                          |             |               |                |                                                                           |
| 25                        | GS 14        | 1825       | BE        | CTD              |               | 328          | 49° 33. 53              | 124° 04. 63  | 149          |           |                          | 1           | H.M.          |                | T: 10.51 S: 27.21                                                         |
|                           |              | 1828       | BO        |                  |               |              | 49° 33. 53              | 124° 04. 68  |              | 140       |                          |             |               |                | BOT@ 10m - SAL/NOT                                                        |
|                           |              | 1832       | EN        |                  |               |              | 49° 33. 55              | 124° 04. 75  |              |           |                          |             |               |                | NO CHL NO TRAWL                                                           |
|                           |              | 1835       | BE        | NET              |               | 329          | 49° 33. 56              | 124° 04. 79  |              |           |                          |             |               |                | BONGO                                                                     |
| End of Leg 1 of 2008-15   |              |            |           |                  |               |              |                         |              |              |           |                          |             |               |                |                                                                           |
| November 2008             |              |            |           |                  |               |              |                         |              |              |           |                          |             |               |                |                                                                           |
| Start of Leg 2 of 2008-15 |              |            |           |                  |               |              |                         |              |              |           |                          |             |               |                |                                                                           |
| 05                        | GS 15        | 1626       | BE        | CTD              |               | 330          | 49° 12.3914             | 123° 41.0694 | 343          | 260       |                          | 1           | W.E.          |                | slow start - was in wrong seawater var at 1st, fluorometer trace no bloom |
|                           |              | 1633       | BO        |                  |               |              |                         |              |              |           |                          |             |               |                |                                                                           |
|                           |              | 1639       | EN        |                  |               |              |                         |              |              |           |                          |             |               |                |                                                                           |
|                           |              | 1641       | BE        | NET              |               | 331          | 49° 12.382              | 123° 41.4320 |              | 150       |                          |             |               |                |                                                                           |
|                           |              | 17:09      | BE        | Trawl            |               | 332          | 49 12.38                | 123 40.13    |              |           |                          |             |               |                |                                                                           |
|                           | GS 16        | 1819       | BE        | CTD              |               | 333          | 49° 12.3788             | 123° 28.9163 | 303          | 250       |                          | 1           |               |                | T = 9.59 S = 26.40 (got at end of cast)                                   |
|                           |              | 1824       | BO        |                  |               |              | 49° 12.4417             | 123° 28.8711 |              |           |                          |             |               |                |                                                                           |
|                           |              | 1830       | EN        |                  |               |              | 49° 12.5265             | 123° 28.9154 |              |           |                          |             |               |                |                                                                           |
|                           |              | 1832       | BE        | NET              |               | 334          | 49° 12.5804             | 123° 28.9241 |              | 150       |                          |             |               |                | * was recording time from computer will use NMEA string from now on.      |
|                           |              | 18:54      | BE        | Trawl            |               | 335          | 49 12.53                | 123 27.84    |              |           |                          |             |               |                |                                                                           |

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Additional comments

Salinity difference = 67 ! Salinity sensor # 2 not working ? Changed display to salinity # 1

# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month November |              |            |           | Year 2008 |               |                | Ship R. L. K. R. |               |              |           | Cruise ID 2008-15 |             |               |                |                                                                   |
|----------------|--------------|------------|-----------|-----------|---------------|----------------|------------------|---------------|--------------|-----------|-------------------|-------------|---------------|----------------|-------------------------------------------------------------------|
| Day            | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number   | Position         |               | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments                                                          |
|                |              |            |           |           |               |                | Latitude         | Longitude     |              |           |                   |             |               |                |                                                                   |
| 05             | G517         | 1956       | BE        | CTD       |               | 336            | 49° 13.0052      | 123° 20.41585 | 188          | 170       |                   | 1           | WE            |                | T = 9.56 S = 24.06<br>(got at end of cast)                        |
|                |              | 2000       | BO        |           |               | <del>336</del> | 49°              | 123°          |              | 170       |                   | ↓           | ↓             |                | star not functioning?                                             |
|                |              | 2005       | EN        |           |               |                | 49° 13.0162      | 123° 20.4161  |              |           |                   | ↓           | ↓             |                |                                                                   |
|                |              | 2006       | BE        | NET       |               | 337            | 49° 13.0100      | 123° 20.4428  |              | 150       |                   |             |               |                | * going back to computer time - easier since NMEA goes on end off |
|                |              | 2032       | BE        | trawl     |               | 338            | 49° 11.942       | 123° 20.455   |              |           |                   |             |               |                |                                                                   |
|                |              |            |           |           |               |                |                  |               |              |           |                   |             |               |                |                                                                   |
|                | G518         | 2126       | BE        | CTD       |               | 339            | 49° 07.2337      | 123° 21.6150  | 155          |           |                   |             |               |                | T = 9.29, S = 20.9                                                |
|                |              | 2130       | BO        |           |               |                | 49° 07.2190      | 123° 21.6073  |              | 140       |                   |             |               |                |                                                                   |
|                |              | 2134       | EN        |           |               |                | 49° 07.1920      | 123° 21.6281  |              |           |                   |             |               |                |                                                                   |
|                |              | 2138       | BE        | NET       |               | 340            | 49° 07.1823      | 123° 21.6479  |              | 150       |                   |             |               |                |                                                                   |
|                |              | 2159       | BE        | trawl     |               | 341            | 49° 07.17        | 123° 22.85    |              |           |                   |             |               |                |                                                                   |
|                |              |            |           |           |               |                |                  |               |              |           |                   |             |               |                |                                                                   |
|                | G519         | 2244       | BE        | CTD       |               | 342            | 49° 06.8863      | 123° 27.5326  | 304          |           |                   |             |               |                | T = , S =<br>(from end of cast)                                   |
|                |              | 2250       | BO        |           |               |                | 49° 06.8893      | 123° 27.5191  |              | 250       |                   |             |               |                |                                                                   |
|                |              | 2255       | EN        |           |               |                | 49° 06.8993      | 123° 27.5066  |              |           |                   |             |               |                |                                                                   |
|                |              | 2258       | BE        | NET       |               | 343            | 49° 06.8917      | 123° 27.5054  |              | 150       |                   |             |               |                |                                                                   |
|                |              | 2312       | BE        | trawl     |               | 344            | 49° 06.91        | 123° 29.13    |              |           |                   |             |               |                |                                                                   |
|                |              |            |           |           |               |                |                  |               |              |           |                   |             |               |                |                                                                   |
|                |              |            |           |           |               |                |                  |               |              |           |                   |             |               |                |                                                                   |

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## DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month Nov |              |            |           | Year 2008 |               |              | Ship R/V    |              |              |           | Cruise ID 2008-15 |             |               |                |                   |
|-----------|--------------|------------|-----------|-----------|---------------|--------------|-------------|--------------|--------------|-----------|-------------------|-------------|---------------|----------------|-------------------|
| Day       | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position    |              | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments          |
|           |              |            |           |           |               |              | Latitude    | Longitude    |              |           |                   |             |               |                |                   |
| 06        | 6520         | 0020       | BE        | CTD       |               | 345          | 49° 07.0882 | 123° 37.5516 | 113          |           |                   | 1           | WE            |                | T=9.84 S=28.06    |
|           |              | 0022       | BO        |           |               |              | 49° 07.0855 | 123° 37.5486 |              | 100       |                   | ↓           | ↓             |                | (gob on way back) |
|           |              | 0026       | EN        |           |               |              | 49° 07.1164 | 123° 37.5815 |              |           |                   |             |               |                |                   |
|           |              | 0028       | BE        | NET       |               | 346          | 49° 07.1427 | 123° 37.6026 |              | 138       |                   |             |               |                |                   |
|           |              | 0052       | BE        | Trawl     |               | 347          | 49 06.58    | 123 37.00    |              |           |                   |             |               |                |                   |
|           |              |            |           |           |               |              |             |              |              |           |                   |             |               |                |                   |
|           | JF01         | 1401       | BE        | CTD       |               | 348          | 48° 17.3655 | 123° 34.4346 | 159          | 158       |                   |             |               |                | T=8.95, S=31.53   |
|           |              | 1405       | BO        |           |               |              | 48° 17.4183 | 123° 34.4327 |              | 140       | 440               |             |               |                | noisy chl signal  |
|           |              | 1408       | EN        |           |               |              | 48° 17.3948 | 123° 34.3818 |              |           |                   |             |               |                |                   |
|           |              | 1419       | BE        | NET       |               | 349          | 48° 17.4520 | 123° 34.3879 |              | 145       |                   |             |               |                |                   |
|           |              | 1443       | BE        | trawl     |               | 350          | 48 17.43    | 123 35.71    |              |           |                   |             |               |                |                   |
|           |              |            |           |           |               |              |             |              |              |           |                   |             |               |                |                   |
|           | JF02         | 1526       | BE        | CTD       |               | 351          | 48° 17.3096 | 123° 39.0240 | 157          |           |                   |             |               |                | T=8.89, S=31.78   |
|           |              | 1530       | BO        |           |               |              | 48° 17.2733 | 123° 38.8225 |              | 140       |                   |             |               |                |                   |
|           |              | 1533       | EN        |           |               |              | 48° 17.2922 | 123° 38.6924 |              |           |                   |             |               |                |                   |
|           |              | 1537       | BE        | NET       |               | 352          | 48° 17.3178 | 123° 38.6154 |              | 150       |                   |             |               |                |                   |
|           |              | 1558       | BE        | Trawl     |               | 353          | 48 17.34    | 123 39.42    |              |           |                   |             |               |                |                   |
|           |              |            |           |           |               |              |             |              |              |           |                   |             |               |                |                   |
|           |              |            |           |           |               |              |             |              |              |           |                   |             |               |                |                   |

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## DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <i>Nov</i> |              |             |           | Year <i>2008</i> |               |              | Ship <i>R/V</i>                                          |                     |              |            | Cruise ID <i>2008-15</i> |             |               |                |                                 |
|------------------|--------------|-------------|-----------|------------------|---------------|--------------|----------------------------------------------------------|---------------------|--------------|------------|--------------------------|-------------|---------------|----------------|---------------------------------|
| Day              | Station Name | Time (UTC)  | Time Code | Cast Type        | Firing Method | Event Number | Position                                                 |                     | Bottom Depth | Max Depth  | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments                        |
|                  |              |             |           |                  |               |              | Latitude                                                 | Longitude           |              |            |                          |             |               |                |                                 |
| <i>06</i>        | <i>JF03</i>  | <i>1732</i> | <i>BE</i> | <i>CTD</i>       |               | <i>354</i>   | <i>48° 20.2740</i>                                       | <i>123° 51.1475</i> | <i>129</i>   | <i>129</i> |                          | <i>1</i>    | <i>WE</i>     |                | <i>T = 9.36, S = 31.96</i>      |
|                  |              | <i>1734</i> | <i>BO</i> |                  |               |              | <i>48° 20.3003</i>                                       | <i>123° 51.0600</i> |              | <i>120</i> |                          | <i>↓</i>    | <i>↓</i>      |                |                                 |
|                  |              | <i>1738</i> | <i>EN</i> |                  |               |              | <i>48° 20.3257</i>                                       | <i>123° 50.9840</i> |              |            |                          |             |               |                | <i>trans voltage = (volt 2)</i> |
|                  |              | <i>1743</i> | <i>BE</i> | <i>NET</i>       |               | <i>355</i>   | <i>48° 20.3107</i>                                       | <i>123° 50.9275</i> |              | <i>119</i> |                          |             |               |                | <i>~ 0.01 for entire cast</i>   |
|                  |              | <i>1803</i> |           | <i>trawl</i>     |               | <i>356</i>   | <i>48 20.52</i>                                          | <i>123 51.83</i>    |              |            |                          |             |               |                |                                 |
|                  |              |             |           |                  |               |              | <i>** mis-numbered the events (went from 357 to 359)</i> |                     |              |            |                          |             |               |                |                                 |
|                  | <i>JF04</i>  | <i>1912</i> | <i>BE</i> | <i>CTD</i>       |               | <i>359</i>   | <i>48° 23.2442</i>                                       | <i>124° 01.5840</i> | <i>46</i>    |            |                          |             |               |                | <i>T = 9.16, S = 31.61</i>      |
|                  |              | <i>1913</i> | <i>BO</i> |                  |               |              | <i>48° 23.2489</i>                                       | <i>124° 01.5563</i> |              | <i>40</i>  |                          |             |               |                |                                 |
|                  |              | <i>1915</i> | <i>EN</i> |                  |               |              | <i>48° 23.2547</i>                                       | <i>124° 01.5499</i> |              |            |                          |             |               |                |                                 |
|                  |              | <i>1930</i> | <i>BE</i> | <i>NET</i>       |               | <i>360</i>   | <i>48° 23.2649</i>                                       | <i>124° 01.5372</i> |              | <i>29</i>  |                          |             |               |                |                                 |
|                  |              | <i>1930</i> | <i>BE</i> | <i>trawl</i>     |               | <i>361</i>   | <i>48 23.44</i>                                          | <i>124 03.04</i>    |              |            |                          |             |               |                |                                 |
|                  | <i>JF05</i>  | <i>2031</i> | <i>BE</i> | <i>CTD</i>       |               | <i>362</i>   | <i>48° 25.3928</i>                                       | <i>124° 10.4188</i> | <i>83</i>    |            |                          |             |               |                | <i>T = 9.05, S = 31.84</i>      |
|                  |              | <i>2033</i> | <i>BO</i> |                  |               |              | <i>48° 25.4239</i>                                       | <i>124° 10.4834</i> |              | <i>70</i>  |                          |             |               |                |                                 |
|                  |              | <i>2036</i> | <i>EN</i> |                  |               |              | <i>48° 25.4598</i>                                       | <i>124° 10.5188</i> |              |            |                          |             |               |                |                                 |
|                  |              | <i>2038</i> | <i>BE</i> | <i>Net</i>       |               | <i>363</i>   | <i>48° 25.4787</i>                                       | <i>124° 10.5529</i> |              | <i>70</i>  |                          |             |               |                |                                 |
|                  |              | <i>2114</i> | <i>BE</i> | <i>trawl</i>     |               | <i>364</i>   | <i>48 25 94</i>                                          | <i>124 11.28</i>    |              |            |                          |             |               |                |                                 |
|                  |              |             |           |                  |               |              |                                                          |                     |              |            |                          |             |               |                |                                 |
|                  |              |             |           |                  |               |              |                                                          |                     |              |            |                          |             |               |                |                                 |

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## DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <u>NOV</u> |              |            |           | Year <u>2008</u> |               |                        | Ship <u>Rizker</u> |              |              | Cruise ID <u>2008-15</u> |                |             |               |                |                      |
|------------------|--------------|------------|-----------|------------------|---------------|------------------------|--------------------|--------------|--------------|--------------------------|----------------|-------------|---------------|----------------|----------------------|
| Day              | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number           | Position           |              | Bottom Depth | Max Depth                | Sample Numbers | #of Bottles | Watch Keepers | Trans. Cleaned | Comments             |
|                  |              |            |           |                  |               |                        | Latitude           | Longitude    |              |                          |                |             |               |                |                      |
| 06               | JF06         | 2210       | BE        | CTD              |               | 365                    | 48° 27.7753        | 124° 19.4053 | 85           |                          |                | 1           | WE            |                | T = 8.88, S = 31.68  |
|                  |              | 2212       | BO        |                  |               |                        | 48° 27.7891        | 124° 19.3932 |              | 75                       |                | ↓           | ↓             |                |                      |
|                  |              | 2216       | EN        |                  |               |                        | 48° 27.8013        | 124° 19.3913 |              |                          |                |             |               |                |                      |
|                  |              | 2218       | BE        | NET              |               | 366                    | 48° 27.8039        | 124° 19.3818 |              | 74                       |                |             |               |                |                      |
|                  |              | 2236       | BE        | trawl            |               | 367                    | 48 28 21           | 124 20.43    |              |                          |                |             |               |                |                      |
|                  |              |            |           |                  |               |                        |                    |              |              |                          |                |             |               |                | T = 10.03, S = 31.63 |
|                  | JF07         | 2340       | BE        | CTD              |               | 368                    | 48° 30.5436        | 124° 28.5905 | 113          |                          |                |             |               |                | T = 10.03, S = 31.63 |
|                  |              | 2342       | BO        |                  |               |                        | 48° 30.5253        | 124° 28.5593 |              | 100                      |                |             |               |                |                      |
|                  |              | 2347       | EN        |                  |               |                        | 48° 30.5471        | 124° 28.6088 |              |                          |                |             |               |                |                      |
|                  |              | 2349       | BE        | NET              |               | <del>369</del><br>1257 | 48° 30.5674        | 124° 28.6352 |              |                          |                |             |               |                |                      |
| 07               |              | 00.08      | BE        | trawl            |               | 370                    | 48 30.855          | 124 29.84    |              |                          |                |             |               |                |                      |
|                  |              |            |           |                  |               |                        |                    |              |              |                          |                |             |               |                |                      |
| 07               | IV101        | 1409       | BE        | CTD              |               | 371                    | 48° 57.0297        | 125° 08.2134 | 28           |                          |                |             |               |                | T = 10.04, S = 28.72 |
|                  |              | 1411       | BO        |                  |               |                        | 48° 57.0474        | 125° 08.1853 |              | 70                       |                |             |               |                |                      |
|                  |              | 1414       | EN        |                  |               |                        | 48° 57.0084        | 125° 08.2147 |              |                          |                |             |               |                |                      |
|                  |              | 1418       | BE        | NET              |               | 372                    | 48° 56.9924        | 125° 08.2796 |              | 64                       |                |             |               |                |                      |
|                  |              | 1441       | BE        | trawl            |               | 373                    | 48 56.83           | 125 8.25.    |              |                          |                |             |               |                |                      |
|                  |              |            |           |                  |               |                        |                    |              |              |                          |                |             |               |                |                      |
|                  |              |            |           |                  |               |                        |                    |              |              |                          |                |             |               |                |                      |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month Nov |              |            |           | Year 2008 |               |              | Ship R. L. K. 1 |              |              |           | Cruise ID 2008-15 |             |               |                |                      |
|-----------|--------------|------------|-----------|-----------|---------------|--------------|-----------------|--------------|--------------|-----------|-------------------|-------------|---------------|----------------|----------------------|
| Day       | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position        |              | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments             |
|           |              |            |           |           |               |              | Latitude        | Longitude    |              |           |                   |             |               |                |                      |
| 07        | IVIO2        | 1529       | BE        | CTD       |               | 374          | 48° 55.0722     | 125° 11.8804 | 95           |           |                   | 1           | WE            |                | T = 9.77 S = 30.83   |
|           |              | 1531       | BO        |           |               |              | 48° 55.0823     | 125° 11.8905 |              | 85        |                   | ↓           | ↓             |                |                      |
|           |              | 1534       | EN        |           |               |              | 48° 55.1274     | 125° 11.8924 |              |           |                   | ↓           | ↓             |                |                      |
|           |              | 1537       | BE        | NET       |               | 375          | 48° 55.0816     | 125° 11.8500 |              | 86        |                   |             |               |                |                      |
|           |              | 1550       | BE        | trawl     |               | 376          | 48° 54.430      | 125° 12.529  |              |           |                   |             |               |                |                      |
| 07        | IVIO3        | 1648       | BE        | CTD       |               | 377          | 48° 50.4321     | 125° 15.8460 | 97           |           |                   |             |               |                | T = 10.44, S = 31.90 |
|           |              | 1651       | BO        |           |               |              | 48° 50.4575     | 125° 15.8219 |              | 90        |                   |             |               |                |                      |
|           |              | 1654       | EN        |           |               |              | 48° 50.4914     | 125° 15.7764 |              |           |                   |             |               |                |                      |
|           |              | 1658       | BE        | NET       |               | 378          | 48° 50.4607     | 125° 15.7417 |              | 88        |                   |             |               |                |                      |
|           |              | 1719       | BE        | trawl     |               | 379          | 48° 49.945      | 125° 16.166  |              |           |                   |             |               |                |                      |
| 07        | VI01         | 1823       | BE        | CTD       |               | 380          | 48° 47.8960     | 125° 21.7924 | 85           |           |                   |             |               |                | T = 10.29, 32.08     |
|           |              | 1825       | BO        |           |               |              | 48° 47.9123     | 125° 21.7339 |              | 75        |                   |             |               |                |                      |
|           |              | 1828       | EN        |           |               |              | 48° 47.9819     | 125° 21.7564 |              |           |                   |             |               |                |                      |
|           |              | 1831       | BE        | NET       |               | 381          | 48° 47.0624     | 125° 21.7865 |              | 74        |                   |             |               |                |                      |
|           |              | 1853       | BE        | trawl     |               | 382          | 48° 47.776      | 125° 23.118  |              |           |                   |             |               |                |                      |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <i>Nov</i> |              |            |           | Year <i>2008</i> |               |              | Ship <i>Rickov</i> |             |              |           | Cruise ID <i>2008-15</i> |             |               |                |                  |  |
|------------------|--------------|------------|-----------|------------------|---------------|--------------|--------------------|-------------|--------------|-----------|--------------------------|-------------|---------------|----------------|------------------|--|
| Day              | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position           |             | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments         |  |
|                  |              |            |           |                  |               |              | Latitude           | Longitude   |              |           |                          |             |               |                |                  |  |
| 07               | VI02         | 2030       | BE        | CTD              |               | 383          | 48°40.8872         | 125°35.6379 | 140          |           |                          | 1           | WE            |                | T=10.31, S=32.43 |  |
|                  |              | 2036       | BO        |                  |               |              | 48°40.9642         | 125°35.6686 |              | 130       |                          | ↓           | ↓             |                |                  |  |
|                  |              | 2041       | EN        |                  |               |              | 48°40.9853         | 125°35.6839 |              |           |                          |             |               |                |                  |  |
|                  |              | 2044       | BE        | Net              |               | 384          | 48°40.9830         | 125°35.8393 |              | 128       |                          |             |               |                |                  |  |
|                  |              | 2110       | BE        | trawl            |               | 385          | 48°40.544          | 125°37.001  |              |           |                          |             |               |                |                  |  |
| 07               | VI03         | 2221       | BE        | CTD              |               | 386          | 48°35.6433         | 125°42.9304 | 60           |           |                          |             |               |                | T=9.84, S=32.36  |  |
|                  |              | 2222       | BO        |                  |               |              | 48°35.6617         | 125°42.9293 |              | 50        |                          |             |               |                |                  |  |
|                  |              | 2226       | EN        |                  |               |              | 48°35.6698         | 125°42.9334 |              |           |                          |             |               |                |                  |  |
|                  |              | 2230       | BE        | NET              |               | 387          | 48°35.8063         | 125°42.9146 |              | 48        |                          |             |               |                |                  |  |
|                  |              | 2250       | BE        | trawl            |               | 388          | 48°35.593          | 125°44.26   |              |           |                          |             |               |                |                  |  |
| 08               | VI04         | 0011       | BE        | CTD              |               | 389          | 48°29.9195         | 125°50.7968 | 100          |           |                          |             |               |                | T=9.83, S=32.38  |  |
|                  |              | 0015       | BO        |                  |               |              | 48°29.9634         | 125°50.7343 |              | 90        |                          |             |               |                |                  |  |
|                  |              | 0019       | EN        |                  |               |              | 48°29.9707         | 125°50.7419 |              |           |                          |             |               |                |                  |  |
|                  |              | 0020       | BE        | Net              |               | 390          | 48°29.9833         | 125°50.6464 |              | 87        |                          |             |               |                |                  |  |
|                  |              | 0042       | BE        | trawl            |               | 391          | 48°29.83           | 125°51.282  |              |           |                          |             |               |                |                  |  |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <i>Nov</i> |              |            |               | Year <i>2008</i> |               |              | Ship <i>R/V Kew</i> |              |              |           | Cruise ID <i>2008-15</i> |             |               |                |                      |
|------------------|--------------|------------|---------------|------------------|---------------|--------------|---------------------|--------------|--------------|-----------|--------------------------|-------------|---------------|----------------|----------------------|
| Day              | Station Name | Time (UTC) | Time Code     | Cast Type        | Firing Method | Event Number | Position            |              | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments             |
|                  |              |            |               |                  |               |              | Latitude            | Longitude    |              |           |                          |             |               |                |                      |
| 08               | EP07         | 1407       | BE            | CTD              |               | 392          | 49° 08.2707         | 126° 58.9596 | 424          |           |                          |             |               |                | T = 11.15, S = 32.25 |
|                  |              | 1413       | BO            |                  |               |              | 49° 08.5668         | 126° 58.9154 |              | 250       |                          |             |               |                |                      |
|                  |              | 1420       | EN            |                  |               |              | 49° 08.5394         | 126° 58.9773 |              |           |                          |             |               |                |                      |
|                  |              |            | <del>BE</del> | <del>trawl</del> |               | 393          | 49°                 | 126°         |              |           |                          |             |               |                | No Bongo             |
|                  |              | 1442       | BE            | trawl            |               | 394          | 49 08 28            | 126 58.83    |              |           |                          |             |               |                |                      |
|                  |              |            |               |                  |               | 393          |                     |              |              |           |                          |             |               |                |                      |
| 08               | EP06         | 1529       | BE            | CTD              |               | 394          | 49° 10.6452         | 126° 54.2976 | 178          |           |                          |             |               |                | T = 10.82, S = 32.22 |
|                  |              | 1533       | BO            |                  |               |              | 49° 10.7319         | 126° 54.3826 |              | 165       |                          |             |               |                |                      |
|                  |              | 1537       | EN            |                  |               |              | 49° 10.8774         | 126° 54.3446 |              |           |                          |             |               |                |                      |
|                  |              |            | <del>BE</del> | <del>trawl</del> |               |              |                     |              |              |           |                          |             |               |                | no bongo             |
|                  |              | 1551       | BE            | trawl            |               | 395          | 49 11.52            | 126 53.75    |              |           |                          |             |               |                |                      |
|                  |              |            |               |                  |               |              |                     |              |              |           |                          |             |               |                |                      |
| 08               | EP05         | 1653       | BE            | CTD              |               | 396          | 49° 12.3775         | 126° 49.6790 | 140          |           |                          |             |               |                | T = 10.61, S = 32.23 |
|                  |              | 1657       | BO            |                  |               |              | 49° 12.4728         | 126° 49.6504 |              | 130       |                          |             |               |                |                      |
|                  |              | 1701       | EN            |                  |               |              | 49° 12.5843         | 126° 49.6527 |              |           |                          |             |               |                |                      |
|                  |              |            | <del>BE</del> | <del>trawl</del> |               |              |                     |              |              |           |                          |             |               |                | no bony              |
|                  |              | 1714       | BE            | trawl            |               | 397          | 49 13.03            | 126 49.06    |              |           |                          |             |               |                |                      |
|                  |              |            |               |                  |               |              |                     |              |              |           |                          |             |               |                |                      |
|                  |              |            |               |                  |               |              |                     |              |              |           |                          |             |               |                |                      |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <i>Nov</i> |              |            |           | Year <i>2008</i> |               |                | Ship <i>Rickier</i> |              |              |           | Cruise ID <i>2008-15</i> |             |               |                |                             |
|------------------|--------------|------------|-----------|------------------|---------------|----------------|---------------------|--------------|--------------|-----------|--------------------------|-------------|---------------|----------------|-----------------------------|
| Day              | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number   | Position            |              | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments                    |
|                  |              |            |           |                  |               |                | Latitude            | Longitude    |              |           |                          |             |               |                |                             |
| 08               | EP04         | 1806       | BE        | CTD              |               | 398            | 49 14.7334          | 125 45.0948  | 140          |           |                          |             |               |                | T = 9.68, S = 32.17         |
|                  |              | 1810       | BO        |                  |               |                | 49 14.7334          | 125 45.0948  |              | 130       |                          |             |               |                | CTDs in question            |
|                  |              | 1814       | EN        |                  |               |                | 49 14.8481          | 125 45.1731  |              |           |                          |             |               |                | seas rough, wind high       |
|                  |              |            | BE        | <del>net</del>   |               | <del>399</del> |                     |              |              |           |                          |             |               |                | bottomed out                |
|                  |              | 18 27      | BE        | trawl            |               | 399            | 49 15.51            | 126 44.77    |              |           |                          |             |               |                | drifted into 115 m of water |
| 08               | IVI04        | 2308       | BE        | CTD              |               | 400            | 49° 35.8841         | 126° 35.7951 | 110          |           |                          |             |               |                | T = 10.33, S = 20.63        |
|                  |              | 2310       | BO        |                  |               |                | 49° 35.8660         | 126° 35.8037 |              | 100       |                          |             |               |                |                             |
|                  |              | 2315       | EN        |                  |               |                | 49° 35.8492         | 126° 35.7944 |              |           |                          |             |               |                |                             |
|                  |              | 2317       | BE        | <del>net</del>   |               | 401            | 49° 35.8412         | 126 35.7850  |              | 11        |                          |             |               |                |                             |
|                  |              | 23 41      | BE        | trawl            |               | 402            | 49 36 65            | 126 35 92    |              |           |                          |             |               |                |                             |
| 09               | IVI05        | 0032       | BE        | CTD              |               | 403            | 49° 40.5952         | 126° 34.9297 | 173 → 163    |           |                          |             |               |                |                             |
|                  |              | 0036       | BO        |                  |               |                | 49° 40.6001         | 126° 35.0042 |              | 157       |                          |             |               |                |                             |
|                  |              | 0046       | EN        |                  |               |                | 49° 40.6301         | 126° 35.0259 |              |           |                          |             |               |                |                             |
|                  |              | 0042       | BE        | NET              |               | 404            | 49° 40.6342         | 126° 35.0336 |              |           |                          |             |               |                |                             |
|                  |              | 0105       | BE        | trawl            |               | 405            | 49 40.685           | 126 34 46    |              |           |                          |             |               |                |                             |

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## DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <i>Nov</i> |              |            |           | Year <i>2008</i> |               |              | Ship <i>R. Baker</i> |              |              |           | Cruise ID <i>2008-15</i> |             |               |                |                  |
|------------------|--------------|------------|-----------|------------------|---------------|--------------|----------------------|--------------|--------------|-----------|--------------------------|-------------|---------------|----------------|------------------|
| Day              | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position             |              | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments         |
|                  |              |            |           |                  |               |              | Latitude             | Longitude    |              |           |                          |             |               |                |                  |
| 09               | IVI06        | 1403       | BE        | CTD              |               | 406          | 49° 54.2110          | 126° 39.4545 | 134          |           |                          |             |               |                | T=10.32, S=25.89 |
|                  |              | 1406       | BO        |                  |               |              | 49° 54.2012          | 126° 39.4525 |              | 120       |                          |             |               |                |                  |
|                  |              | 1410       | EN        |                  |               |              | 49° 54.2111          | 126° 46.601  |              |           |                          |             |               |                |                  |
|                  |              | 1417       | BE        | NET              |               | 407          | 49° 54.1972          | 126° 39.4366 |              | 133       |                          |             |               |                |                  |
|                  |              | 1439       | BE        | trawl            |               | 408          | 49 53 231            | 126 39.609   |              |           |                          |             |               |                |                  |
| 09               | IVI07        | 1527       | BE        | CTD              |               | 409          | 49° 51.1089          | 126° 39.6713 | 183          |           |                          |             |               |                | T=9.83, S=18.0   |
|                  |              | 1531       | BO        |                  |               |              | 49 51.1263           | 126° 39.6733 |              | 170       |                          |             |               |                |                  |
|                  |              | 1535       | EN        |                  |               |              | 49° 51.1282          | 126° 39.6962 |              |           |                          |             |               |                |                  |
|                  |              | 1538       | BE        | NET              |               | 410          | 49° 51.1907          | 126° 39.7144 |              | 150       |                          |             |               |                |                  |
|                  |              | 1600       | BE        | trawl            |               | 411          | 49 50.382            | 126 39.72    |              |           |                          |             |               |                |                  |
| 09               | IVI08        | 1734       | BE        | CTD              |               | 412          | 49° 51.6541          | 126° 43.7370 | 244          |           |                          |             |               |                | T=10.21, S=25.41 |
|                  |              | 1738       | BO        |                  |               |              | 49° 51.6594          | 126° 44.7471 |              | 230       |                          |             |               |                |                  |
|                  |              | 1743       | EN        |                  |               |              | 49° 51.6722          | 126° 44.7565 |              |           |                          |             |               |                |                  |
|                  |              | 1746       | BE        | NET              |               | 413          | 49° 51.6752          | 126° 44.7587 |              | 150       |                          |             |               |                |                  |
|                  |              | 1814       | BE        | trawl            |               | 414          | 49 52 119            | 126 45 72    |              |           |                          |             |               |                |                  |
|                  |              |            |           |                  |               |              |                      |              |              |           |                          |             |               |                |                  |
|                  |              |            |           |                  |               |              |                      |              |              |           |                          |             |               |                |                  |

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## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month |              |            |           | Year      |               |              |            | Ship        |              |           |                | Cruise ID   |               |                |                      |  |
|-------|--------------|------------|-----------|-----------|---------------|--------------|------------|-------------|--------------|-----------|----------------|-------------|---------------|----------------|----------------------|--|
| Day   | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position   |             | Bottom Depth | Max Depth | Sample Numbers | #of Bottles | Watch Keepers | Trans. Cleaned | Comments             |  |
|       |              |            |           |           |               |              | Latitude   | Longitude   |              |           |                |             |               |                |                      |  |
| 09    | IVI 09       | 1908       | BE        | CTD       |               | 415          | 49°56.6663 | 126°48.5523 | 175          |           |                |             |               |                | T = 10.32, S = 23.96 |  |
|       |              | 1912       | BO        |           |               |              | 49°56.6647 | 126°48.5030 |              | 160       |                |             |               |                |                      |  |
|       |              | 1917       | EN        |           |               |              | 49°56.6647 | 126°48.5256 |              |           |                |             |               |                |                      |  |
|       |              | 1920       | BE        | Net       |               | 416          | 49°56.6321 | 126°48.5728 |              | 150       |                |             |               |                |                      |  |
|       |              | 1940       | BE        | trawl     |               | 417          | 49°55.778  | 126°48.800  |              |           |                |             |               |                |                      |  |
| 09    | IVI 10       | 2032       | BE        | CTD       |               | 418          | 49°52.3679 | 126°49.7034 | 220          |           |                |             |               |                | T = 10.27, S = 26.90 |  |
|       |              | 2036       | BO        |           |               |              | 49°52.3608 | 126°49.6925 |              | 200       |                |             |               |                |                      |  |
|       |              | 2041       | EN        |           |               |              | 49°52.3917 | 126°49.6666 |              |           |                |             |               |                |                      |  |
|       |              | 2043       | BE        | NET       |               | 419          | 49°52.3925 | 126°49.6657 |              | 150       |                |             |               |                |                      |  |
|       |              | 2106       |           | trawl     |               | 420          | 49°52.154  | 126°50.617  |              |           |                |             |               |                |                      |  |
| 09    | IVI 11       | 2220       | BE        | CTD       |               | 421          | 49°55.4754 | 126°55.7273 | 251          |           |                |             |               |                | T = 10.42, S = 29.59 |  |
|       |              | 2223       | BO        |           |               |              | 49°55.4768 | 126°55.7333 |              | 230       |                |             |               |                |                      |  |
|       |              | 2229       | EN        |           |               |              | 49°55.4894 | 126°55.7172 |              |           |                |             |               |                |                      |  |
|       |              | 2231       | BE        | NET       |               | 422          | 49°55.4828 | 126°55.7031 |              | 150       |                |             |               |                |                      |  |
|       |              | 2254       | BE        | trawl     |               | 423          | 49°54.806  | 126°55.652  |              |           |                |             |               |                |                      |  |
|       |              |            |           |           |               |              |            |             |              |           |                |             |               |                |                      |  |
|       |              |            |           |           |               |              |            |             |              |           |                |             |               |                |                      |  |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <i>Nov</i> |              |            |           | Year <i>2002</i> |               |              | Ship <i>R/V</i> |              |              |           | Cruise ID <i>2008-15</i> |             |               |                |                      |
|------------------|--------------|------------|-----------|------------------|---------------|--------------|-----------------|--------------|--------------|-----------|--------------------------|-------------|---------------|----------------|----------------------|
| Day              | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position        |              | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments             |
|                  |              |            |           |                  |               |              | Latitude        | Longitude    |              |           |                          |             |               |                |                      |
| 09               | IVI 12       | 2339       | BE        | CTD              |               | 424          | 49° 51.5845     | 126° 55.0187 | 193          |           |                          |             |               |                | T = 10.19, S = 28.26 |
|                  |              | 2342       | BO        |                  |               |              | 49° 51.5918     | 126° 55.0328 |              | 180       |                          |             |               |                | bottle didn't        |
|                  |              | 2349       | EN        |                  |               |              | 49° 51.5855     | 126° 55.0005 |              |           |                          |             |               |                | trip - sampling back |
|                  |              | 2351       | BE        | NET              |               | 425          | 49° 51.5822     | 126° 54.9805 |              | 150       |                          |             |               |                | for second try       |
| 10               |              | 0012       | BE        | TRAWL            |               | 426          | 49° 51.305      | 126° 55.760  |              |           |                          |             |               |                |                      |
| 10               | IVI 13       | 1402       | BE        | CTD              |               | 427          | 49° 38.2593     | 126° 29.6284 | 139          |           |                          |             |               |                | T = 9.65, S = 13.3   |
|                  |              | 1405       | BO        |                  |               |              | 49° 38.2659     | 126° 29.6388 |              | 120       |                          |             |               |                |                      |
|                  |              | 1408       | EN        |                  |               |              | 49° 38.2701     | 126° 29.6550 |              |           |                          |             |               |                |                      |
|                  |              | 1415       | BE        | NET              |               | 428          | 49° 38.2811     | 126° 26.6618 |              | 130       |                          |             |               |                |                      |
|                  |              | 1433       | BE        | trawl            |               | 429          | 49° 38.702      | 126° 28.871  |              |           |                          |             |               |                |                      |
| 10               | IVI 14       | 1552       | BE        | CTD              |               | 430          | 49° 38.4422     | 126° 20.8219 | 280          |           |                          |             |               |                | T = 9.13, S = 8.35   |
|                  |              | 1557       | BO        |                  |               |              | 49° 38.4390     | 126° 20.8544 |              | 250       |                          |             |               |                |                      |
|                  |              | 1603       | EN        |                  |               |              | 49° 38.4359     | 126° 20.8198 |              |           |                          |             |               |                |                      |
|                  |              | 1605       | BE        | NET              |               | 431          | 49° 38.4340     | 126° 20.8386 |              | 150       |                          |             |               |                |                      |
|                  |              | 1628       | BE        | trawl            |               | 432          | 49° 39.01       | 126° 19.201  |              |           |                          |             |               |                |                      |
|                  |              |            |           |                  |               |              |                 |              |              |           |                          |             |               |                |                      |
|                  |              |            |           |                  |               |              |                 |              |              |           |                          |             |               |                |                      |
|                  |              |            |           |                  |               |              |                 |              |              |           |                          |             |               |                |                      |

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# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month |              |            |           | Year      |               |              | Ship        |              |              |           |                | Cruise ID   |               |                |                     |  |
|-------|--------------|------------|-----------|-----------|---------------|--------------|-------------|--------------|--------------|-----------|----------------|-------------|---------------|----------------|---------------------|--|
| Day   | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position    |              | Bottom Depth | Max Depth | Sample Numbers | #of Bottles | Watch Keepers | Trans. Cleaned | Comments            |  |
|       |              |            |           |           |               |              | Latitude    | Longitude    |              |           |                |             |               |                |                     |  |
| 11    | IVI15        | 1414       | BE        | CTD       |               | 433          | 50° 28.2266 | 127° 57.3677 | 132          |           |                |             |               |                | T = 9.77, S = 28.56 |  |
|       |              | 1418       | BO        |           |               |              | 50° 28.2518 | 127° 57.4363 |              | 120       |                |             |               |                |                     |  |
|       |              | 1421       | EN        |           |               |              | 50° 28.2946 | 127° 57.4401 |              |           |                |             |               |                |                     |  |
|       |              | 1425       | BE        | NET       |               | 434          | 50° 28.2184 | 127° 57.3765 |              | 121       |                |             |               |                |                     |  |
|       |              | 1448       | BE        | trawl     |               | 435          | 50 28.417   | 127 56.00    |              |           |                |             |               |                |                     |  |
| 11    | IVI16        | 1537       | BE        | CTD       |               | 436          | 50° 29.1608 | 127° 50.9447 | 147          |           |                |             |               |                | T = 9.55, S = 26.76 |  |
|       |              | 1540       | BO        |           |               |              | 50° 29.1264 | 127° 50.9649 |              | 130       |                |             |               |                |                     |  |
|       |              | 1544       | EN        |           |               |              | 50° 29.1309 | 127° 50.9730 |              |           |                |             |               |                |                     |  |
|       |              | 1547       | BE        | NET       |               | 437          | 50° 29.1399 | 127° 50.9742 |              | 138       |                |             |               |                |                     |  |
|       |              | 1607       | BE        | trawl     |               | 438          | 50 28.888   | 127 50.033   |              |           |                |             |               |                |                     |  |
| 11    | IVI17        | 1655       | BE        | CTD       |               | 439          | 50° 29.1877 | 127° 45.4132 | 98           |           |                |             |               |                | T = 9.64, S = 27.28 |  |
|       |              | 1657       | BO        |           |               |              | 50° 29.1789 | 127° 45.4010 |              | 90        |                |             |               |                |                     |  |
|       |              | 1700       | EN        |           |               |              | 50° 29.1757 | 127° 45.3961 |              |           |                |             |               |                |                     |  |
|       |              | 1702       | BE        | Net       |               | 440          | 50° 29.1740 | 127° 45.4106 |              | 88        |                |             |               |                |                     |  |
|       |              | 1722       | BE        | trawl     |               | 441          | 50 29 17    | 127 44.47    |              |           |                |             |               |                |                     |  |
|       |              |            |           |           |               |              |             |              |              |           |                |             |               |                |                     |  |
|       |              |            |           |           |               |              |             |              |              |           |                |             |               |                |                     |  |

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# DAILY SCIENCE LOG BOOK

MISSION  
NUMBER

2008-15

DATE:

From: Nov 11 / 08

to:

Nov 13 / 08

VESSEL:

W.E. Ricker

PROJECT(S):

High Seas Salmon - Trudel

2 of 2

Water Properties Group  
Fisheries and Oceans Canada  
Institute of Ocean Sciences  
Ocean Sciences Division  
Sidney, BC, Canada

[WaterProperties.ca](http://WaterProperties.ca)

# DAILY SCIENCE LOG

## Ocean Sciences Division, Institute of Ocean Sciences

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| Month Nov |              |            |           | Year 2008 |               |              |                        | Ship R. L. K. K. |              |           |                | Cruise ID 2008-15 |               |                |                     |
|-----------|--------------|------------|-----------|-----------|---------------|--------------|------------------------|------------------|--------------|-----------|----------------|-------------------|---------------|----------------|---------------------|
| Day       | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Positional Information |                  | Bottom Depth | Max Depth | Sample Numbers | # of Bottles      | Watch Keepers | Trans. Cleaned | Comments            |
|           |              |            |           |           |               |              | Latitude               | Longitude        |              |           |                |                   |               |                |                     |
| 11        | IVE 18       | 1959       | BE        | CTD       |               | 442          | 50° 34.9110            | 127° 28.6460     | 70           |           |                | 1                 | WE            |                | T = 9.80, S = 28.52 |
|           |              | 2000       | BO        |           |               |              | 50° 34.9052            | 127° 28.6127     |              | 60        |                | ↓                 | ↓             |                |                     |
|           |              | 2003       | EN        |           |               |              | 50° 34.9035            | 127° 28.5924     |              |           |                |                   |               |                |                     |
|           |              | 2005       | BE        | NET       |               | 443          | 50° 34.9026            | 127° 28.5778     |              | 60        |                |                   |               |                |                     |
|           |              | 20 23      | BE        | trawl     |               | 444          | 50 34.904              | 127 29 549       |              |           |                |                   |               |                |                     |
| 11        | IVE 19       | 2137       | BE        | CTD       |               | 445          | 50° 35.3590            | 127° 40.6048     | 108          |           |                |                   |               |                | T = 9.18, S = 18.06 |
|           |              | 2139       | BO        |           |               |              | 50° 35.3634            | 127° 40.6094     |              | 100       |                |                   |               |                |                     |
|           |              | 2142       | EN        |           |               |              | 50° 35.3644            | 127° 40.6046     |              |           |                |                   |               |                |                     |
|           |              | 2144       | BE        | NET       |               | 446          | 50° 35.3634            | 127° 40.6014     |              | 98        |                |                   |               |                |                     |
|           |              | 22 03      | BE        | trawl     |               | 447          | 50 35.422              | 127 41 743       |              |           |                |                   |               |                |                     |
| 12        | IVE 20       | 1356       | BE        | CTD       |               | 448          | 50° 23.6950            | 127° 28.9705     | 196          |           |                |                   |               |                | T = 10.01, S = 27.9 |
|           |              | 1359       | BO        |           |               |              | 50° 23.7000            | 127° 28.9426     |              | 80        |                |                   |               |                |                     |
|           |              | 1402       | EN        |           |               |              | 50° 23.7172            | 127° 28.9055     |              |           |                |                   |               |                |                     |
|           |              | 1408       | BE        | NET       |               | 449          | 50° 23.7254            | 127° 28.9452     |              | 78        |                |                   |               |                |                     |
|           |              | 14 40      | BE        | trawl     |               | 450          | 50 24 359              | 127 29 476       |              |           |                |                   |               |                |                     |

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Notes:

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Version: 06 March 2008

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

| Month Nov |                                                                                                |            |           | Year 2008 |               |              | Ship R/V R/V           |             |              |           | Cruise ID 2008-15 |              |               |                |                                     |
|-----------|------------------------------------------------------------------------------------------------|------------|-----------|-----------|---------------|--------------|------------------------|-------------|--------------|-----------|-------------------|--------------|---------------|----------------|-------------------------------------|
| Day       | Station Name                                                                                   | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Positional Information |             | Bottom Depth | Max Depth | Sample Numbers    | # of Bottles | Watch Keepers | Trans. Cleaned | Comments                            |
|           |                                                                                                |            |           |           |               |              | Latitude               | Longitude   |              |           |                   |              |               |                |                                     |
| 17        | IVIZ1                                                                                          | 1524       | BE        | CTD       |               | 451          | 50°27.0120             | 127°31.5300 | 188          |           |                   | 1            | WE            |                | T = 9.90, S = 27.96                 |
|           |                                                                                                | 1528       | BO        |           |               |              | 50°27.0187             | 127°31.5389 |              | 170       |                   | ↓            | ↓             |                |                                     |
|           |                                                                                                |            | EN        |           |               |              |                        |             |              |           |                   |              |               |                | on way back up -                    |
|           |                                                                                                |            | BE        | NET       |               | 452          | 50°27.0312             | 127°31.5834 |              | 150       |                   |              |               |                | lost communication with CTD - @ 80m |
|           |                                                                                                | 1554       | BE        | trawl     |               | 453          | 50 27.72               | 127 32.465  |              |           |                   |              |               |                | alarms on deck box                  |
| 18        | IVIZ2                                                                                          | 1645       | BE        | CTD       |               | 454          | 50°30.3557             | 127°35.8150 | 136          |           |                   |              |               |                | running a test while on deck        |
|           |                                                                                                | 1648       | BO        |           |               |              | 50°30.3150             | 127°35.8359 |              | 110       |                   |              |               |                | 2008-15-test →                      |
|           |                                                                                                |            | EN        |           |               |              |                        |             |              |           |                   |              |               |                | T = 9.81, S = 28.06                 |
|           |                                                                                                |            | BE        | NET       |               | 455          |                        |             |              |           |                   |              |               |                | * Same happened again on way up?    |
|           |                                                                                                | 1715       | BE        | trawl     |               | 456          | 50 30.004              | 127 35 050  |              |           |                   |              |               |                | modular error count is zero         |
|           | * Doing test CTD cont to see if our fix of cable worked. 148 m, going to 130m => 2008-15-test2 |            |           |           |               |              |                        |             |              |           |                   |              |               |                |                                     |
|           |                                                                                                |            |           |           |               |              | 50°30.3450,            | 127°35.7365 |              |           |                   |              |               |                |                                     |
| 18        | VIOS                                                                                           | 2115       | BE        | CTD       |               | 457          | 50°26.5822             | 127°57.0169 | 100          |           |                   |              |               |                | running back up                     |
|           |                                                                                                | 2119       | BO        |           |               |              | 50°26.5371             | 127°57.0196 |              | 80        |                   |              |               |                | CTD                                 |
|           |                                                                                                | 2122       | EN        |           |               |              | 50°26.5144             | 127°56.9942 |              |           |                   |              |               |                |                                     |
|           |                                                                                                |            | BE        | Net       |               | 458          | 50°26.5097             | 127°56.9744 |              | 95        |                   |              |               |                |                                     |
|           |                                                                                                | 2146       | BE        | TRAWL     |               | 459          | 50 26.817              | 127 57.233  |              |           |                   |              |               |                |                                     |

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**Notes:**

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got unit started on deck and  
cleaned terminals, will see  
what happens on next cast  
modular error count was 9

No bottle sample for  
this cast

---

this seems to happen when the CTD  
is at 100 m - CABLE PROBLEM?

- Moved wire to other side of shackle on  
CTD unit and tightened the locking sleeve  
on drum connection.

did get a bottle sample

---

→ Doing another test cast to 50 m to see if this happen again.

142 m , 50° 30.3942 , 127° 35.8422

2008-15-test 3

# DAILY SCIENCE LOG

## Ocean Sciences Division, Institute of Ocean Sciences

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| Month Nov |              |            |           | Year 2008 |               |              | Ship R/V R/V                                                 |              |              |           |                | Cruise ID 2008-15 |               |                |          |
|-----------|--------------|------------|-----------|-----------|---------------|--------------|--------------------------------------------------------------|--------------|--------------|-----------|----------------|-------------------|---------------|----------------|----------|
| Day       | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Positional Information                                       |              | Bottom Depth | Max Depth | Sample Numbers | # of Bottles      | Watch Keepers | Trans. Cleaned | Comments |
|           |              |            |           |           |               |              | Latitude                                                     | Longitude    |              |           |                |                   |               |                |          |
| 12        | VI06         | 2256       | BE        | CTD       |               | 460          | 50° 24.1330                                                  | 128° 06.1206 | 75           |           |                | 1                 | WE            |                |          |
|           |              | 2257       | BO        |           |               |              | 50° 24.1427                                                  | 128° 06.1327 |              | 50        |                | ↓                 | ↓             |                |          |
|           |              | 2259       | EN        |           |               |              | 50° 24.1670                                                  | 128° 06.1588 |              |           |                |                   |               |                |          |
|           |              | 2315       | BE        | trawl     |               | 461          | 50° 24.275                                                   | 128° 07.149  |              |           |                |                   |               |                |          |
| 13        |              | 0426       | fast cast | 4         |               |              | chart reterminated CTD - 15 m cast 50° 26.9160, 128° 01.8386 |              |              |           |                |                   |               |                |          |
|           |              |            |           |           |               |              | didn't even work on deck - Cast aborted                      |              |              |           |                |                   |               |                |          |
| 13        | T05          | 1531       | BE        | CTD       |               | 462          | 50° 59.9511                                                  | 128° 52.0072 | 60           |           |                |                   |               |                |          |
|           |              | 1533       | BO        |           |               |              | 50° 59.9702                                                  | 128° 52.1340 |              | 50        |                |                   |               |                |          |
|           |              | 1536       | EN        |           |               |              | 50° 59.9852                                                  | 128° 52.1575 |              |           |                |                   |               |                |          |
|           |              | 1550       | BE        | trawl     |               | 463          | 50° 59.699                                                   | 128° 51.010  |              |           |                |                   |               |                |          |
| 3         | T04          | 1758       | BE        | CTD       |               | 464          | 51° 04.6556                                                  | 128° 43.6467 | 62           |           |                |                   |               |                |          |
|           |              | 1800       | BO        |           |               |              | 51° 04.6172                                                  | 128° 43.6432 |              | 50        |                |                   |               |                |          |
|           |              | 1803       | EN        |           |               |              | 51° 04.6261                                                  | 128° 43.6620 |              |           |                |                   |               |                |          |
|           |              | 1807       | BE        | NET       |               | 465          | 51° 04.6722                                                  | 128° 43.5158 |              | 53        |                |                   |               |                |          |
|           |              | 1827       | BE        |           |               | 466          | 51° 04.800                                                   | 128° 41.696  |              |           |                |                   |               |                |          |

N/A BONGOS TOO ROUGH

NO BONGOS, 3-Hrs SURVIVE, NW 30 tow aborted for SAR mission

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Version: 06 March 2008

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

| Month Nov |              |            |           | Year 2008 |               |              | Ship R. L. Bell        |             |              |           | Cruise ID 2008-15 |              |               |                |          |
|-----------|--------------|------------|-----------|-----------|---------------|--------------|------------------------|-------------|--------------|-----------|-------------------|--------------|---------------|----------------|----------|
| Day       | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Positional Information |             | Bottom Depth | Max Depth | Sample Numbers    | # of Bottles | Watch Keepers | Trans. Cleaned | Comments |
|           |              |            |           |           |               |              | Latitude               | Longitude   |              |           |                   |              |               |                |          |
| 13        | T03          | 1925       | BE        | CTD       |               | 467          | 51°08.2635             | 128°35.9316 | 135          |           |                   |              |               |                |          |
|           |              | 1929       | BO        |           |               |              | 51°08.2638             | 128°35.9198 |              | 120       |                   |              |               |                |          |
|           |              | 1932       | EN        |           |               |              | 51°08.2966             | 128°35.8879 |              |           |                   |              |               |                |          |
|           |              | 1935       | BE        | NET       |               | 468          | 51°08.3254             | 128°35.7737 |              | 127       |                   |              |               |                |          |
|           |              |            |           | trawl     |               | 469          |                        |             |              |           |                   |              |               |                |          |
| 13        | T02          | 2057       | BE        | CTD       |               | 470          | 51°12.4326             | 128°27.8834 | 177          |           |                   |              |               |                |          |
|           |              | 2101       | BO        |           |               |              | 51°12.3807             | 128°27.8989 |              | 160       |                   |              |               |                |          |
|           |              | 2107       | EN        |           |               |              | 51°12.3381             | 128°27.8679 |              |           |                   |              |               |                |          |
|           |              | 2108       | BE        | NET       |               | 471          | 51°12.3067             | 128°27.8659 |              | 150       |                   |              |               |                |          |
|           |              |            |           | trawl     |               | 472          |                        |             |              |           |                   |              |               |                |          |
|           |              |            |           |           |               |              |                        |             |              |           |                   |              |               |                |          |
| 13        | T01          | 2237       | BE        | CTD       |               | 473          | 51°16.7622             | 128°20.0296 | 74           |           |                   |              |               |                |          |
|           |              | 2239       | BO        |           |               |              | 51°16.7520             | 128°20.0509 |              | 60        |                   |              |               |                |          |
|           |              | 2241       | EN        |           |               |              | 51°16.7442             | 128°20.0887 |              |           |                   |              |               |                |          |
|           |              | 2243       | BE        | NET       |               | 474          | 51°16.7359             | 128°20.1230 |              | 66        |                   |              |               |                |          |
|           |              |            |           | trawl     |               | 475          |                        |             |              |           |                   |              |               |                |          |
|           |              |            |           |           |               |              |                        |             |              |           |                   |              |               |                |          |
|           |              |            |           |           |               |              |                        |             |              |           |                   |              |               |                |          |
|           |              |            |           |           |               |              |                        |             |              |           |                   |              |               |                |          |
|           |              |            |           |           |               |              |                        |             |              |           |                   |              |               |                |          |

*This page is for any notes or observations*

No data on last

7 casts