

ROSETTE LOG

MISSION ID: 2007-43 STATION: SI CAST NUMBER: 1 UTC DATE (dd/mm/yyyy): 4/06/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. m/l | ROSETTE OPERATION |                    | Samples taken |  |     |   |     |  |     |   |   |  |  |  |  |
|------------|------------|------------|----------|-------------------|--------------------|---------------|--|-----|---|-----|--|-----|---|---|--|--|--|--|
|            |            |            |          | Sample Depth      | Confirmed pressure | SAL           |  | NUT |   | TCO |  | C13 |   |   |  |  |  |  |
| 1          | 1          | 1334       | 8.836    | 20                | 20                 |               |  | ✓   | ✓ |     |  |     |   |   |  |  |  |  |
| 2          | 2          | 1485       | 8.929    | surf              | 1                  |               |  | ✓   | ✓ |     |  |     | ✓ | ✓ |  |  |  |  |
| 3          |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 4          |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 5          |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 6          |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 7          |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 8          |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 9          |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 10         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 11         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 12         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 13         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 14         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 15         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 16         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 17         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 18         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 19         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 20         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 21         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 22         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 23         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |
| 24         |            |            |          |                   |                    |               |  |     |   |     |  |     |   |   |  |  |  |  |

Comments:

SHIP: Vector  
ENTERED BY:  
CHECKED BY:

Bottom Depth: 143

Cast # down:  
Cast # up:

| Time    | LOC | UTC  |
|---------|-----|------|
| Begin:  |     | 2240 |
| Bottom: | 46  |      |
| End:    |     |      |

START POSITION (GPS)  
LAT: 48°39'55"  
LONG: 123°30'04"

BOTTOM POSITION (GPS)  
LAT:  
LONG:

END POSITION (GPS)  
LAT:  
LONG:

ROSETTE LOG

MISSION ID: 2007-43 STATION: 60 CAST NUMBER: 3 UTC DATE (dd/mm/yyyy): 05/06/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |  |     |  |     |  |     |    |     |      |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|--|-----|--|-----|--|-----|----|-----|------|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |  | NUT |  | TCO |  | C13 |    | CHL | #Plt |  |  |  |
| 1          | 3          | 1336       | 3.180     | BOT               | ✓                  |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 2          | 4          | 1468       | 3.392     | 200               | ✓ 203              | ✓             |  |     |  |     |  |     |    |     |      |  |  |  |
| 3          | 5          | 1484       | 3.410     | 175               | ✓ 175              |               |  | ✓   |  |     |  |     |    |     |      |  |  |  |
| 4          | 6          | 1233       | 3.471     | 150               | ✓                  |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 5          | 7          | 1342       | 3.648     | 135               | ✓                  |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 6          | 8          | 1284       | 3.960     | 100               | ✓                  |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 7          | 9          | 1295       | 4.677     | 75                | ✓                  |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 8          | 10         | 1332       | 4.550     | 50                | ✓                  |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 9          | 11         | 1465       | 4.660     | 40                | ✓                  |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 10         | 12         | 1481       | 4.728     | 30                | ✓                  |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 11         | 13         | 1476       | 4.735     | 20                | ✓                  |               |  |     |  |     |  |     | ✓✓ | ✓✓  |      |  |  |  |
| 12         | 14         | 1464       | 4.870     | 10                | ✓                  |               |  |     |  |     |  |     | ✓✓ | ✓✓  |      |  |  |  |
| 13         | 15         | 1466       | 4.940     | 5                 | ✓                  |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 14         | 16         | 1335       | 5.082     | surf              |                    |               |  |     |  |     |  |     | ✓✓ | ✓✓  |      |  |  |  |
| 15         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 16         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 17         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 18         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 19         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 20         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 21         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 22         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 23         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |     |      |  |  |  |
| 24         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |     |      |  |  |  |

Comments:

SHIP: Vector  
ENTERED BY: 74  
CHECKED BY: 74

Bottom Depth: 293

Cast # down: 3  
Cast # up: 3

| Time    | LOC | UTC |
|---------|-----|-----|
| Begin:  | 1   | 40  |
| Bottom: | 1   | 49  |
| End:    | 2   | 03  |

START POSITION (GPS)  
LAT: 48 33 894  
LONG: 123 12 707

BOTTOM POSITION (GPS)  
LAT: 48 34 003  
LONG: 123 12 707

END POSITION (GPS)  
LAT: 48 34 497  
LONG: 123 12 719

ROSETTE LOG

MISSION ID: 200743 STATION: 102 CAST NUMBER: 7 UTC DATE (dd/mm/yyyy): 5/6/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |     |     |   |     |     |     |     |      |     |   |  |                  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|-----|-----|---|-----|-----|-----|-----|------|-----|---|--|------------------|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |     | NUT |   | TCO |     | C13 |     |      | Phy |   |  |                  |
|            |            |            |           |                   |                    |               | OXY |     |   |     | ALK |     | CHL | HALL |     |   |  |                  |
| 1          | 17         | 505        | 1.530     | 207               | ✓                  | 260           |     |     |   |     |     |     |     |      |     |   |  | 261ml            |
| 2          | 18         | 3133       | 1.530     | 256               | ✓                  |               |     |     |   |     |     |     |     |      |     |   |  | wrong sample # 8 |
| 3          | 19         | 468        | 1.600     | 200               | ✓                  |               | ✓   |     |   |     |     |     |     |      |     |   |  | comp             |
| 4          | 20         | 570        | 1.996     | 175               | ✓                  |               |     |     | ✓ |     |     |     |     |      |     |   |  |                  |
| 5          | 21         | 396        | 1.881     | 150               | ✓                  |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 6          | 22         | 3184       | 2.061     | 125               | ✓                  |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 7          | 23         | 2090       | 2.144     | 100               | ✓                  |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 8          | 24         | 1331       | 2.662     | 75                | ✓                  |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 9          | 25         | 2075       | 3.245     | 50                | ✓                  |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 10         | 26         | 458        | 3.768     | 40                | ✓                  |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 11         | 27         | 94         | 4.250     | 30                | ✓                  |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 12         | 28         | 612        | 4.934     | 20                | ✓                  |               |     |     |   |     |     |     | ✓   | ✓    | ✓   |   |  |                  |
| 13         | 29         | 1252       | 5.333     | 10                | ✓                  |               |     |     |   |     |     |     | ✓   | ✓    | ✓   |   |  |                  |
| 14         | 30         | 528        | 5.261     | 5                 | ✓                  |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 15         | 31         | x90        | 5.482     | surf              | ✓                  |               |     |     | ✓ | ✓   |     |     | ✓   | ✓    | ✓   | X |  |                  |
| 16         |            |            |           |                   |                    |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 17         |            |            |           |                   |                    |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 18         |            |            |           |                   |                    |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 19         |            |            |           |                   |                    |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 20         |            |            |           |                   |                    |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 21         |            |            |           |                   |                    |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 22         |            |            |           |                   |                    |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 23         |            |            |           |                   |                    |               |     |     |   |     |     |     |     |      |     |   |  |                  |
| 24         |            |            |           |                   |                    |               |     |     |   |     |     |     |     |      |     |   |  |                  |

Comments:

SHIP: VECTOR  
ENTERED BY:   
CHECKED BY:

Bottom Depth: 259

Cast # down: 7  
Cast # up: 7

| Time    | LOC   | UTC |
|---------|-------|-----|
| Begin:  | 12 12 |     |
| Bottom: | 1217  |     |
| End:    | 1218  |     |

START POSITION (GPS)  
LAT: 48 30 010  
LONG: 124 44 092

BOTTOM POSITION (GPS)  
LAT: 48 30 020  
LONG: 124 44 180

END POSITION (GPS)  
LAT: 48 30 044  
LONG: 124 44 273

# ROSETTE LOG

MISSION ID: 2007-43 STATION: 75 CAST NUMBER: 10 UTC DATE (dd/mm/yyyy): 05/06/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |     |     |  |     |  |     |      |  |  |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|-----|-----|--|-----|--|-----|------|--|--|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |     | NUT |  | TCO |  | C13 |      |  |  |  |  |  |
|            |            |            |           |                   |                    |               | OXY |     |  | ALK |  | CHL | MPIL |  |  |  |  |  |
| 1          | 32         | 668        | 1.555     | 607               | ✓                  | 226           |     |     |  |     |  |     |      |  |  |  |  |  |
| 2          | 33         | 745        | 1.546     | 200               | ✓                  |               | ✓   |     |  |     |  |     |      |  |  |  |  |  |
| 3          | 34         | 569        | 1.651     | 175               | ✓                  |               |     | ✓   |  |     |  |     |      |  |  |  |  |  |
| 4          | 35         | 1312       | 1.971     | 150               | ✓                  |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 5          | 36         | 650        | 1.930     | 125               | ✓                  |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 6          | 37         | 1416       | 2.019     | 100               | ✓                  |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 7          | 38         | 552        | 2.442     | 75                | ✓                  |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 8          | 39         | 196        | 3.442     | 50                | ✓                  |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 9          | 40         | 1422       | 3.709     | 40                | ✓                  |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 10         | 41         | 1201       | 4.358     | 30                | ✓                  |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 11         | 42         | 1330       | 4.934     | 20                | ✓                  |               |     |     |  |     |  | ✓   | ✓    |  |  |  |  |  |
| 12         | 43         | 1387       | 5.596     | 10                | ✓                  |               |     |     |  |     |  | ✓   | ✓    |  |  |  |  |  |
| 13         | 44         | 1245       | 6.005     | 5                 | ✓                  |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 14         | 45         | 510        | 6.249     | Surf.             | ✓                  |               |     |     |  |     |  | ✓   | ✓    |  |  |  |  |  |
| 15         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 16         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 17         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 18         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 19         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 20         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 21         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 22         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 23         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 24         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |

Comments: \_\_\_\_\_

SHIP:  
 ENTERED BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_

Bottom Depth: 226

Cast # down: 10  
 Cast # up: 10

Time LOC UTC  
 Begin: 14 41  
 Bottom: 14 46  
 End: 14 54

START POSITION (GPS)  
 LAT: 48 28 247  
 LONG: 124 32 845

BOTTOM POSITION (GPS)  
 LAT: 48 28 23.4  
 LONG: 124 32 887

END POSITION (GPS)  
 LAT: 48 28 23.0  
 LONG: 124 32 924

# ROSETTE LOG

MISSION ID: 2007-43 STATION: 72 CAST NUMBER: 13 UTC DATE (dd/mm/yyyy): 5/6/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |  |     |  |     |  |     |  |   |   |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|--|-----|--|-----|--|-----|--|---|---|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |  | NUT |  | TCO |  | C13 |  |   |   |  |  |  |
| 1          | 46         | 1334       | 0.310ml   | BOT               | ✓ 188.50           |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 2          | 47         | 1485       | 0.305ml   | 175               | ✓ ✓                |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 3          | 48         | 1336       | 1.735     | 150               | ✓ ✓                |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 4          | 49         | 1468       | 1.831     | 125               | ✓ ✓                |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 5          | 50         | 1484       | 2.209     | 100               | ✓ ✓                |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 6          | 51         | 1233       | 2.497     | 75                | ✓ ✓                |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 7          | 52         | 1342       | 3.615     | 50                | ✓ ✓                |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 8          | 53         | 1284       | 3.822     | 40                | ✓ ✓                |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 9          | 54         | 1295       | 4.040     | 30                | ✓ ✓                |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 10         | 55         | 1332       | 4.770     | 20                | ✓ ✓                |               |  |     |  |     |  |     |  | ✓ | ✓ |  |  |  |
| 11         | 56         | 1465       | 5.178     | 10                | ✓ ✓                |               |  |     |  |     |  |     |  | ✓ | ✓ |  |  |  |
| 12         | 57         | 1481       | 5.207     | 5                 | ✓ ✓                |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 13         | 58         | 1476       | 5.364     | surf              | ✓ ✓                | ✓             |  |     |  |     |  |     |  | ✓ | ✓ |  |  |  |
| 14         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 15         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 16         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 17         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 18         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 19         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 20         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 21         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 22         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 23         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 24         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |

SHIP: Vector  
 ENTERED BY: DT  
 CHECKED BY:

Bottom Depth: 191

Cast # down: 13  
 Cast # up:

| Time    | LOC | UTC          |
|---------|-----|--------------|
| Begin:  |     | <u>19 08</u> |
| Bottom: |     | <u>19 12</u> |
| End:    |     | <u>19 21</u> |

START POSITION (GPS)  
 LAT: 48 18.721  
 LONG: 124 4.048

BOTTOM POSITION (GPS)  
 LAT: 48 18.826  
 LONG: 124 4.218

END POSITION (GPS)  
 LAT: 48 18.971  
 LONG: 124 4.463

Comments:

ROSETTE LOG

MISSION ID: 2007-43 STATION: 69 CAST NUMBER: 16 UTC DATE (dd/mm/yyyy): 5/6/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |     |     |     |     |     |     |      |  |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|-----|-----|-----|-----|-----|-----|------|--|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           | OXY | NUT | TCO | ALK | C13 | CHL | HPLC |  |  |  |  |
| 1          | 59         | 1464       | 1.773     | Bottom            | ✓                  | 179           |     | ✓   | ✓   |     |     |     |      |  |  |  |  |
| 2          | 60         | 1417       | 1.786     | 150               | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |
| 3          | 61         | 1335       | 1.892     | 125               | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |
| 4          | 62         | 1467       | 2.285     | 100               | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |
| 5          | 63         | 1482       | 2.409     | 75                | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |
| 6          | 64         | 1470       | 3.284     | 50                | ✓                  |               |     | ✓   |     |     |     |     |      |  |  |  |  |
| 7          | 65         | 1471       | 3.533     | 40                | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |
| 8          | 66         | 1473       | 3.927     | 30                | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |
| 9          | 67         | 1477       | 4.156     | 20                | ✓                  |               |     |     |     |     |     | ✓   | ✓    |  |  |  |  |
| 10         | 68         | 708        | 4.422     | 10                | ✓                  |               |     |     |     |     |     | ✓   | ✓    |  |  |  |  |
| 11         | 69         | 1478       | 5.028     | 5                 | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |
| 12         | 70         | 1479       | 5.110     | surface           | ✓                  |               | ✓   | ✓   | ✓   |     |     | ✓   | ✓    |  |  |  |  |
| 13         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |
| 14         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |
| 15         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |
| 16         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |
| 17         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |
| 18         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |
| 19         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |
| 20         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |
| 21         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |
| 22         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |
| 23         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |
| 24         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |

Comments:

SHIP: Vector  
ENTERED BY: DT  
CHECKED BY:

Bottom Depth: 180

Cast # down: 16  
Cast # up:

| Time    | LOC | UTC |
|---------|-----|-----|
| Begin:  | 22  | 02  |
| Bottom: | 22  | 08  |
| End:    | 22  | 15  |

START POSITION (GPS)  
LAT: 48 15.755  
LONG: 123 43.154

BOTTOM POSITION (GPS)  
LAT: 48 18.824  
LONG: 123 43.199

END POSITION (GPS)  
LAT: 48 15.870  
LONG: 123 43.313

ROSETTE LOG

MISSION ID: 2007-43 STATION: ADLP CAST NUMBER: 19 UTC DATE (dd/mm/yyyy): 6 June 2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |     |     |     |     |     |     |                 |  |  |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|-----|-----|-----|-----|-----|-----|-----------------|--|--|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           | OXY | NUT | TCO | ALK | C13 | CHL | NO <sub>3</sub> |  |  |  |  |  |
| 1          | 71         | 505        | 2.402     | 80T               | ✓                  | 114           |     |     |     |     |     |     |                 |  |  |  |  |  |
| 2          | 72         | 3133       | 2.418     | 100               | ✓                  |               | ✓   |     |     |     |     |     |                 |  |  |  |  |  |
| 3          | 73         | 468        | 2.497     | 75                | ✓                  |               |     | ✓✓  |     |     |     |     |                 |  |  |  |  |  |
| 4          | 74         | 570        | 3.441     | 50                | ✓                  |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 5          | 75         | 396        | 3.885     | 40                | ✓                  |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 6          | 76         | 3184       | 4.416     | 30                | ✓                  |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 7          | 77         | 2090       | 4.645     | 20                | ✓                  |               |     |     |     |     |     | ✓✓  | ✓✓              |  |  |  |  |  |
| 8          | 78         | 1331       | 5.172     | 10                | ✓                  |               |     |     |     |     |     | ✓✓  | ✓✓              |  |  |  |  |  |
| 9          | 79         | 2075       | 6.505     | 5                 | ✓                  |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 10         | 80         | 458        | 5.386     | 200T              | ✓                  |               |     | ✓   |     |     |     | ✓✓  | ✓✓              |  |  |  |  |  |
| 11         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 12         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 13         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 14         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 15         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 16         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 17         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 18         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 19         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 20         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 21         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 22         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 23         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |
| 24         |            |            |           |                   |                    |               |     |     |     |     |     |     |                 |  |  |  |  |  |

oxygen sample not filled up - an air space of about 1.5 cm! lid may have popped off?

SHIP:

ENTERED BY: *JK*

CHECKED BY:

Bottom Depth: 1.18

Cast # down: 19

Cast # up: 19

| Time    | LOC  | UTC |
|---------|------|-----|
| Begin:  | 1.25 |     |
| Bottom: | 1.30 |     |
| End:    | 1.37 |     |

START POSITION (GPS)

LAT: 48 14.000

LONG: 123 17.962

BOTTOM POSITION (GPS)

LAT: 48 14.005

LONG: 123 18.040

END POSITION (GPS)

LAT: 48 14.000

LONG: 123 18.048

Comments:

ROSETTE LOG

MISSION ID: 2007-43 STATION: 65 CAST NUMBER: 22 UTC DATE (dd/mm/yyyy): 06/06/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |     |     |  |     |  |     |     |   |  |  |  |                |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|-----|-----|--|-----|--|-----|-----|---|--|--|--|----------------|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |     | NUT |  | TCO |  | C13 |     |   |  |  |  |                |
|            |            |            |           |                   |                    |               | OXY |     |  | ALK |  | CHL | WPL |   |  |  |  | Flash # 6 to 1 |
| 1          | 81         | 1252       | 2.737     | 807               | ✓ 1.18             |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 2          | 82         | 528        | 2.549     | 100               | ✓                  |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 3          | 83         | 90         | 3.197     | 75                | ✓                  |               |     | ✓   |  |     |  |     |     |   |  |  |  |                |
| 4          | 84         | 668        | 3.685     | 50                | ✓                  |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 5          | 85         | 745        | 3.831     | 40                | ✓                  |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 6          | 86         | 569        | 4.060     | 30                | ✓                  |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 7          | 87         | 1312       | 4.047     | 20                | ✓                  |               |     |     |  |     |  |     | ✓   | ✓ |  |  |  |                |
| 8          | 88         | 650        | 4.607     | 10                | ✓                  |               |     |     |  |     |  |     | ✓   | ✓ |  |  |  |                |
| 9          | 89         | 1416       | 5.219     | 5                 | ✓                  |               |     |     |  |     |  |     | ✓   | ✓ |  |  |  |                |
| 10         | 90         | 1243       | 5.285     | surf              | ✓                  | ✓             |     |     |  |     |  |     | ✓   | ✓ |  |  |  |                |
| 11         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 12         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 13         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 14         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 15         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 16         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 17         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 18         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 19         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 20         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 21         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 22         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 23         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |
| 24         |            |            |           |                   |                    |               |     |     |  |     |  |     |     |   |  |  |  |                |

SHIP: VECTOR  
ENTERED BY: SS  
CHECKED BY:

Bottom Depth: 123

Cast # down: 22  
Cast # up:

| Time    | LOC | UTC   |
|---------|-----|-------|
| Begin:  |     | 03:31 |
| Bottom: |     |       |
| End:    |     |       |

START POSITION (GPS)  
LAT: 48 15.92  
LONG: 123 9.67

BOTTOM POSITION (GPS)  
LAT: 48 15.916  
LONG: 123 9.69

END POSITION (GPS)  
LAT: 48 15.88  
LONG: 123 9.72

Comments:

ROSETTE LOG

MISSION ID: 2007-43 STATION: 62 CAST NUMBER: 25 UTC DATE (dd/mm/yyyy): 05/06/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |  |     |  |     |  |     |   |   |  |  |  |                  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|--|-----|--|-----|--|-----|---|---|--|--|--|------------------|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |  | NUT |  | TCO |  | C13 |   |   |  |  |  |                  |
| 1          | 91         | 1334       | 2.738     | Bot               | ✓ 144              |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 2          | 92         | 1485       | 2.835     | 125               | ✓                  | X             |  |     |  |     |  |     |   |   |  |  |  |                  |
| 3          | 93         | 1336       | 3.093     | 100               | ✓                  |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 4          | 94         | 1468       | -         | 75                | ✓                  |               |  | ✓   |  |     |  |     |   |   |  |  |  | 582 ml + 2.7 flb |
| 5          | 95         | 1484       |           | 50                | ✓                  |               |  |     |  |     |  |     |   |   |  |  |  | 643 ml problem   |
| 6          | 96         | 1233       | 3.832     | 40                | ✓                  |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 7          | 97         | 1481       | 4.110     | 30                | ✓                  |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 8          | 98         | 1465       | 4.197     | 20                | ✓                  |               |  |     |  |     |  |     | ✓ | ✓ |  |  |  |                  |
| 9          | 99         | 1332       | 4.289     | 10                | ✓                  |               |  |     |  |     |  |     | ✓ | ✓ |  |  |  |                  |
| 10         | 100        | 1295       | 4.632     | 5                 | ✓                  |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 11         | 101        | 1284       | 4.825     | surf              | ✓                  |               |  | ✓   |  |     |  |     | ✓ | ✓ |  |  |  |                  |
| 12         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 13         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 14         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 15         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 16         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 17         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 18         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 19         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 20         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 21         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 22         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 23         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                  |
| 24         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                  |

Comments:

SHIP: Vector  
ENTERED BY: JT  
CHECKED BY:

Bottom Depth: 150

Cast # down: 25  
Cast # up:

| Time    | LOC   | UTC |
|---------|-------|-----|
| Begin:  | 06:42 |     |
| Bottom: |       |     |
| End:    |       |     |

START POSITION (GPS)  
LAT: 48 22.78  
LONG: 123 2.57

BOTTOM POSITION (GPS)  
LAT: 48 22.78  
LONG: 123 2.61

END POSITION (GPS)  
LAT: 48 22.75  
LONG: 123 2.65

ROSETTE LOG

MISSION ID: 2007-43 STATION: 56 CAST NUMBER: 30 UTC DATE (dd/mm/yyyy): 6/6/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |     |     |  |     |  |     |      |  |  |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|-----|-----|--|-----|--|-----|------|--|--|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |     | NUT |  | TCO |  | C13 |      |  |  |  |  |  |
|            |            |            |           |                   |                    |               | OXY |     |  | ALK |  | CHL | 4/26 |  |  |  |  |  |
| 1          | 102        | 1342       | 2.128     | 1307              |                    | 206           |     |     |  |     |  |     |      |  |  |  |  |  |
| 2          | 103        | 1476       | 3.537     | 200               |                    | 197           |     |     |  |     |  |     |      |  |  |  |  |  |
| 3          | 104        | 1417       | 3.570     | 175               |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 4          | 105        | 1335       | 3.605     | 150               |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 5          | 106        | 1464       | 3.767     | 125               |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 6          | 107        | 1467       | 4.164     | 100               |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 7          | 108        | 1471       | 4.233     | 75                |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 8          | 109        | 1477       | 4.322     | 50                |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 9          | 110        | 1470       | 4.446     | 40                |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 10         | 111        | 1473       | 4.531     | 30                |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 11         | 112        | 1482       | 4.651     | 20                |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 12         | 113        | 1408       | 4.774     | 10                |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 13         | 114        | 1478       | 4.845     | 5                 |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 14         | 115        | 1130       | 5.063     | surf.             |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 15         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 16         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 17         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 18         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 19         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 20         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 21         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 22         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 23         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |
| 24         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |  |  |  |  |  |

SHIP: Vexha  
ENTERED BY: DTC  
CHECKED BY: [initials]

Bottom Depth: 209

Cast # down: 30  
Cast # up: 30

| Time    | LOC   | UTC |
|---------|-------|-----|
| Begin:  | 13:40 |     |
| Bottom: | 13:45 |     |
| End:    | 13:53 |     |

START POSITION (GPS)  
LAT: 48 46 40.4  
LONG: 123 16 07

BOTTOM POSITION (GPS)  
LAT: 48 46 40.3  
LONG: 123 15.9

END POSITION (GPS)  
LAT: 11 8 46 4.12  
LONG: 123 15.96

Comments:

ROSETTE LOG

MISSION ID: 2007-43 STATION: 46 CAST NUMBER: 39 UTC DATE (dd/mm/yyyy): 6/6/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. m/l | ROSETTE OPERATION |                    | Samples taken |     |     |     |     |     |     |      |  |  |  |  |  |
|------------|------------|------------|----------|-------------------|--------------------|---------------|-----|-----|-----|-----|-----|-----|------|--|--|--|--|--|
|            |            |            |          | Sample Depth      | Confirmed pressure | SAL           | OXY | NUT | TCO | ALK | C13 | CHL | HPLC |  |  |  |  |  |
| 1          | 116        | 505        | 4.049    | 180               | ✓                  | 188           |     |     |     |     |     |     |      |  |  |  |  |  |
| 2          | 117        | 3133       | 4.056    | 150               | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 3          | 118        | 468        | 4.406    | 100               | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 4          | 119        | 570        | 4.452    | 100               | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 5          | 120        | 396        | 4.518    | 75                | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 6          | 121        | 3184       | 4.611    | 50                | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 7          | 122        | 2090       | 4.737    | 40                | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 8          | 123        | 1331       | 4.776    | 30                | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 9          | 124        | 2075       | 5.020    | 20                | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 10         | 125        | 458        | 5.878    | 10                | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 11         | 126        | 94         | 7.322    | 5                 | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 12         | 127        | 612        |          | surf              | ✓                  |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 13         |            |            |          |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 14         |            |            |          |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 15         |            |            |          |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 16         |            |            |          |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 17         |            |            |          |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 18         |            |            |          |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 19         |            |            |          |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 20         |            |            |          |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 21         |            |            |          |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 22         |            |            |          |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 23         |            |            |          |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |  |
| 24         |            |            |          |                   |                    |               |     |     |     |     |     |     |      |  |  |  |  |  |

Comments:

SHIP: Victor  
ENTERED BY: DT  
CHECKED BY:

Bottom Depth: 191

Cast # down: 39  
Cast # up:

| Time    | LOC   | UTC |
|---------|-------|-----|
| Begin:  | 21:07 |     |
| Bottom: | 21:12 |     |
| End:    | 21:20 |     |

START POSITION (GPS)  
LAT: 48 51.270  
LONG: 123 10.811

BOTTOM POSITION (GPS)  
LAT: 48 51.238  
LONG: 123 10.752

END POSITION (GPS)  
LAT: 48 51.233  
LONG: 123 10.758

ROSETTE LOG

MISSION ID: 2007-43 STATION: 42 CAST NUMBER: 41 UTC DATE (dd/mm/yyyy): 6/6/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |   |     |  |     |  |     |  |      |    |  |  |                        |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|---|-----|--|-----|--|-----|--|------|----|--|--|------------------------|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |   | NUT |  | TCO |  | C13 |  | N/20 |    |  |  |                        |
| 1          | 128        | 1252       | 2.937     | bot               | ✓                  | 314           |   |     |  |     |  |     |  |      |    |  |  | oxy 0.503ml thio - run |
| 2          | 129        | 528        | 2.789     | 300               | ✓                  |               | ✓ |     |  |     |  |     |  |      |    |  |  | thio not               |
| 3          | 130        | 90         | 2.943     | 250               | ✓                  |               |   | ✓   |  |     |  |     |  |      |    |  |  |                        |
| 4          | 131        | 668        | 3.475     | 200               | ✓                  |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 5          | 132        | 745        | 3.694     | 175               | ✓                  |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 6          | 133        | 569        | 4.166     | 150               | ✓                  |               |   |     |  |     |  |     |  |      |    |  |  | bubble on lens         |
| 7          | 134        | 1312       | 4.218     | 125               | ✓                  |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 8          | 135        | 650        | 4.388     | 100               | ✓                  |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 9          | 136        | 7416       | 4.638     | 75                | ✓                  |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 10         | 137        | 1243       | 4.226     | 50                | ✓                  |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 11         | 138        | 196        | 4.496     | 40                | ✓                  |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 12         | 139        | 1422       | 4.766     | 30                | ✓                  |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 13         | 140        | 1201       | 5.128     | 20                | ✓                  |               |   |     |  |     |  |     |  | xx   | xx |  |  |                        |
| 14         | 141        | 1330       | 5.533     | 10                | ✓                  |               |   |     |  |     |  |     |  | xx   | xx |  |  |                        |
| 15         | 142        | 1387       | 6.984     | 5                 | ✓                  |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 16         | 143        | 552        | 7.270     | surf              | ✓                  |               |   |     |  |     |  |     |  | xx   | xx |  |  |                        |
| 17         |            |            |           |                   |                    |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 18         |            |            |           |                   |                    |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 19         |            |            |           |                   |                    |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 20         |            |            |           |                   |                    |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 21         |            |            |           |                   |                    |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 22         |            |            |           |                   |                    |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 23         |            |            |           |                   |                    |               |   |     |  |     |  |     |  |      |    |  |  |                        |
| 24         |            |            |           |                   |                    |               |   |     |  |     |  |     |  |      |    |  |  |                        |

Comments:

SHIP: Vector  
ENTERED BY:  
CHECKED BY:

Bottom Depth: 319

Cast # down: 41  
Cast # up:

Time LOC UTC  
Begin: 23.43  
Bottom: 23.50  
End: 00.03

START POSITION (GPS)  
LAT: 49 1 781  
LONG: 123 30 194

BOTTOM POSITION (GPS)  
LAT: 49 1 795  
LONG: 123 26 204

END POSITION (GPS)  
LAT: 49 1 793  
LONG: 123 26 282

ROSETTE LOG

MISSION ID: 2007-43 STATION: 39 CAST NUMBER: 45 UTC DATE (dd/mm/yyyy): 7/16/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |  |     |  |     |  |     |    |    |    |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|--|-----|--|-----|--|-----|----|----|----|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |  | NUT |  | TCO |  | C13 |    |    |    |  |  |  |
| 1          | 144        | 1334       | 3.216     | BOT               | ✓ 371              |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 2          | 145        | 1485       | 3.146     | 350               | ✓                  | ✓             |  |     |  |     |  |     |    |    |    |  |  |  |
| 3          | 146        | 1336       | 3.275     | 300               | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 4          | 147        | 1468       | 3.398     | 250               | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 5          | 148        | 1484       | 3.677     | 200               | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 6          | 149        | 1233       | 3.919     | 175               | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 7          | 150        | 1342       | 4.114     | 150               | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 8          | 151        | 1284       | 4.263     | 125               | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 9          | 152        | 1295       | 4.398     | 100               | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 10         | 153        | 1332       | 4.428     | 75                | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 11         | 154        | 1465       | 4.450     | 50                | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 12         | 155        | 1481       | 4.474     | 40                | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 13         | 156        | 1476       | 4.490     | 30                | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 14         | 157        | 1417       | 4.699     | 20                | ✓                  |               |  |     |  |     |  |     | ✓✓ | ✓✓ |    |  |  |  |
| 15         | 158        | 1335       | 6.418     | 10                | ✓                  |               |  | ✓✓  |  |     |  |     | ✓✓ | ✓✓ |    |  |  |  |
| 16         | 159        | 1464       | 7.034     | 5                 | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 17         | 160        | 1467       | 7.246     | surf              | ✓                  |               |  | ✓✓  |  |     |  |     | ✓✓ | ✓✓ | ✓✓ |  |  |  |
| 18         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 19         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 20         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 21         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 22         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 23         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 24         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |

Comments:

SHIP: Vector  
ENTERED BY: [signature]  
CHECKED BY:

Bottom Depth: 376

Cast # down: 45  
Cast # up:

| Time    | LOC | UTC  |
|---------|-----|------|
| Begin:  |     | 0340 |
| Bottom: |     | 0348 |
| End:    |     | 0401 |

START POSITION (GPS)  
LAT: 49° 09' 84"  
LONG: 123° 32' 95"

BOTTOM POSITION (GPS)  
LAT: 49° 09' 87"  
LONG: 123° 33' 03"

END POSITION (GPS)  
LAT:  
LONG:

# ROSETTE LOG

MISSION ID: 2007-43 STATION: 27 CAST NUMBER: 48 UTC DATE (dd/mm/yyyy): 07/05/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |  |     |  |     |  |     |  |   |   |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|--|-----|--|-----|--|-----|--|---|---|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |  | NUT |  | TCO |  | CI3 |  |   |   |  |  |  |
| 1          | 161        | 1334       | 3.073     | 80T               | ✓ 340              |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 2          | 162        | 1485       | 3.038     | 300               | ✓                  | +             |  |     |  |     |  |     |  |   |   |  |  |  |
| 3          | 163        | 1336       | 3.090     | 250               | ✓                  |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 4          | 164        | 1468       | 3.295     | 200               | ✓                  |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 5          | 165        | 1484       | 3.529     | 175               | ✓                  |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 6          | 166        | 1233       | 3.750     | 150               | ✓                  |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 7          | 167        | 1342       | 4.386     | 125               | ✓                  |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 8          | 168        | 1284       | 4.523     | 100               | ✓                  |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 9          | 169        | 1295       | 4.465     | 75                | ✓                  |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 10         | 170        | 1332       | 4.388     | 50                | ✓                  |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 11         | 171        | 1465       | 4.336     | 40                | ✓                  |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 12         | 172        | 1481       | 4.444     | 30                | ✓                  |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 13         | 173        | 1476       | 4.999     | 20                | ✓                  |               |  |     |  |     |  |     |  | ✓ | ✓ |  |  |  |
| 14         | 174        | 1417       | 6.261     | 10                | ✓                  |               |  |     |  |     |  |     |  | ✓ | ✓ |  |  |  |
| 15         | 175        |            |           | 5                 | ✓                  |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 16         | 176        | 1464       | 7.155     | Surf              | ✓                  |               |  |     |  |     |  |     |  | ✓ | ✓ |  |  |  |
| 17         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 18         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 19         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 20         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 21         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 22         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 23         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |
| 24         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |   |   |  |  |  |

SHIP: Vector  
 ENTERED BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_

Bottom Depth: \_\_\_\_\_

Cast # down: \_\_\_\_\_

Cast # up: \_\_\_\_\_

| Time    | LOC | UTC   |
|---------|-----|-------|
| Begin:  |     | 06:33 |
| Bottom: |     | 06:40 |
| End:    |     | 06:52 |

START POSITION (GPS)  
 LAT: 49 19.09  
 LONG: 123 47.98

BOTTOM POSITION (GPS)  
 LAT: 49 19.09  
 LONG: 123 47.87

END POSITION (GPS)  
 LAT: 49 19.12  
 LONG: 123 47.81

Comments: \_\_\_\_\_

# ROSETTE LOG

MISSION ID: 2007-43 STATION: 2 CAST NUMBER: 52 UTC DATE (dd/mm/yyyy): 07/06/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |  |     |   |     |  |     |    |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|--|-----|---|-----|--|-----|----|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |  | NUT |   | TCO |  | C13 |    |  |  |  |
| 1          | 177        | 1335       | 2.516     | bnt               | ✓ 275              |               |  | X   | X |     |  |     |    |  |  |  |
| 2          | 178        | 1467       | 2.639     | 250               | ✓                  | X             |  |     |   |     |  |     |    |  |  |  |
| 3          | 179        | 1471       | 3.383     | 200               | ✓                  |               |  |     |   |     |  |     |    |  |  |  |
| 4          | 180        | 1130       | 3.525     | 175               | ✓                  |               |  | X   | X |     |  |     |    |  |  |  |
| 5          | 181        | 1470       | 4.076     | 150               | ✓                  |               |  |     |   |     |  |     |    |  |  |  |
| 6          | 182        | 1473       | 4.266     | 125               | ✓                  |               |  |     |   |     |  |     |    |  |  |  |
| 7          | 183        | 1482       | 4.445     | 100               | ✓                  |               |  |     |   |     |  |     |    |  |  |  |
| 8          | 184        | 1408       | 4.496     | 75                | ✓                  |               |  |     |   |     |  |     |    |  |  |  |
| 9          | 185        | 1478       | 4.842     | 50                | ✓                  |               |  |     |   |     |  |     |    |  |  |  |
| 10         | 186        | 1477       | 4.269     | 40                | ✓                  |               |  |     |   |     |  |     |    |  |  |  |
| 11         | 187        | 1126       | 4.430     | 30                | ✓                  |               |  |     |   |     |  |     |    |  |  |  |
| 12         | 188        | 1248       | 4.808     | 20                | ✓                  |               |  |     |   |     |  | XX  | XX |  |  |  |
| 13         | 189        | 1483       | 6.281     | 10                | ✓                  |               |  |     |   |     |  | XX  | XX |  |  |  |
| 14         | 190        | 1475       | 6.653     | 5                 | ✓                  |               |  |     |   |     |  |     |    |  |  |  |
| 15         | 191        | 658        | 7.053     | surf              | ✓                  |               |  |     |   |     |  | XX  | XX |  |  |  |
| 16         |            |            |           |                   |                    |               |  |     |   |     |  |     |    |  |  |  |
| 17         |            |            |           |                   |                    |               |  |     |   |     |  |     |    |  |  |  |
| 18         |            |            |           |                   |                    |               |  |     |   |     |  |     |    |  |  |  |
| 19         |            |            |           |                   |                    |               |  |     |   |     |  |     |    |  |  |  |
| 20         |            |            |           |                   |                    |               |  |     |   |     |  |     |    |  |  |  |
| 21         |            |            |           |                   |                    |               |  |     |   |     |  |     |    |  |  |  |
| 22         |            |            |           |                   |                    |               |  |     |   |     |  |     |    |  |  |  |
| 23         |            |            |           |                   |                    |               |  |     |   |     |  |     |    |  |  |  |
| 24         |            |            |           |                   |                    |               |  |     |   |     |  |     |    |  |  |  |

Comments:

SHIP: VECTOR  
 ENTERED BY: ST  
 CHECKED BY:

Bottom Depth: 271

Cast # down: 52

Cast # up:

| Time    | LOC       | UTC       |
|---------|-----------|-----------|
| Begin:  | <u>10</u> | <u>46</u> |
| Bottom: | <u>10</u> | <u>52</u> |
| End:    | <u>11</u> | <u>02</u> |

START POSITION (GPS)  
 LAT: 49 24.118  
 LONG: 124 9.275

BOTTOM POSITION (GPS)  
 LAT: 49 24.073  
 LONG: 124 9.289

END POSITION (GPS)  
 LAT: 49 24.035  
 LONG: 124 9.335

ROSETTE LOG

MISSION ID: 2007-42 STATION: 3 CAST NUMBER: 55 UTC DATE (dd/mm/yyyy): 7/6/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |  |     |  |     |  |     |    |    |    |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|--|-----|--|-----|--|-----|----|----|----|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |  | NUT |  | TCO |  | C13 |    |    |    |  |  |  |
| 1          | 192        | 570        | 2.538     | 807               | ✓ 318              |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 2          | 199        | 505        | 2.473     | 300               | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 3          | 194        | 468        | 2.603     | 250               | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 4          | 195        | 3133       | 3.263     | 200               | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 5          | 196        | 396        | 3.590     | 175               | ✓                  |               |  | ✓✓  |  |     |  |     |    |    |    |  |  |  |
| 6          | 197        | 3184       | 4.038     | 150               | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 7          | 198        | 612        | 4.195     | 125               | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 8          | 199        | 2090       | 4.412     | 100               | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 9          | 200        | 1331       | 4.456     | 75                | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 10         | 201        | 2075       | 4.186     | 50                | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 11         | 202        | 94         | 4.313     | 40                | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 12         | 203        | 458        | 4.535     | 30                | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 13         | 204        | 1252       | 4.889     | 20                | ✓                  |               |  |     |  |     |  |     | ✓✓ | ✓✓ |    |  |  |  |
| 14         | 205        | 528        | 6.541     | 10                | ✓                  |               |  |     |  |     |  |     | ✓✓ | ✓✓ | ✓✓ |  |  |  |
| 15         | 206        | 90         | 6.616     | 5                 | ✓                  |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 16         | 207        | 668        | 6.623     | surf              | ✓                  |               |  |     |  |     |  |     | ✓✓ | ✓✓ | ✓✓ |  |  |  |
| 17         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 18         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 19         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 20         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 21         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 22         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 23         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |
| 24         |            |            |           |                   |                    |               |  |     |  |     |  |     |    |    |    |  |  |  |

Comments:

SHIP:   
 ENTERED BY:   
 CHECKED BY:

Bottom Depth: 318

Cast # down: 55   
 Cast # up: 55

| Time    | LOC  | UTC |
|---------|------|-----|
| Begin:  | 1328 |     |
| Bottom: | 1335 |     |
| End:    | 1344 |     |

START POSITION (GPS)   
 LAT: 4926.606   
 LONG: 12420.213

BOTTOM POSITION (GPS)   
 LAT: 4926.606   
 LONG: 12420.201

END POSITION (GPS)   
 LAT: 4926.593   
 LONG: 12420.177

ROSETTE LOG

MISSION ID: 2007-43 STATION: 6 CAST NUMBER: 57 UTC DATE (dd/mm/yyyy): 07/06/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |  |     |  |     |  |     |  |  |  |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|--|-----|--|-----|--|-----|--|--|--|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |  | NUT |  | TCO |  | C13 |  |  |  |  |  |  |
| 1          | 202        | 745        | 3.419     | Bot               | ✓ 1.87             |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 2          | 209        | 569        | 3.381     | 175               | ✓                  |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 3          | 210        | 1312       | 4.206     | 150               | ✓                  |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 4          | 211        | 650        | 4.201     | 125               | ✓                  |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 5          | 212        | 1416       | 4.200     | 100               | ✓                  |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 6          | 213        | 1243       | 4.077     | 75                | ✓                  |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 7          | 214        | 196        | 4.152     | 50                | ✓                  |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 8          | 215        | 1422       | 4.364     | 40                | ✓                  |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 9          | 216        | 1201       | 4.499     | 30                | ✓                  |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 10         | 217        | 1330       | 4.705     | 20                | ✓                  |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 11         | 218        | 1387       | 5.321     | 10                | ✓                  |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 12         | 219        | 552        | 6.088     | 5                 | ✓                  |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 13         | 220        | 510        | 6.496     | Surf              | ✓                  |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 14         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 15         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 16         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 17         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 18         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 19         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 20         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 21         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 22         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 23         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |  |  |  |  |  |
| 24         |            |            |           |                   |                    |               |  |     |  |     |  |     |  |  |  |  |  |  |

SHIP: Vector  
ENTERED BY: JST  
CHECKED BY:

Bottom Depth: 192

Cast # down: 57  
Cast # up:

| Time    | LOC | UTC   |
|---------|-----|-------|
| Begin:  | 1   | 15:11 |
| Bottom: |     | 15:16 |
| End:    |     | 15:21 |

START POSITION (GPS)  
LAT: 49 30.89  
LONG: 124 27.79

BOTTOM POSITION (GPS)  
LAT: 49 30.89  
LONG: 124 27.78

END POSITION (GPS)  
LAT: 49 30.60  
LONG: 124 27.73

Comments:

ROSETTE LOG

MISSION ID: 2007-43 STATION: 9 CAST NUMBER: 60 UTC DATE (dd/mm/yyyy): 7/6/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |     |     |  |     |  |     |      |    |  |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|-----|-----|--|-----|--|-----|------|----|--|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |     | NUT |  | TCO |  | C13 |      |    |  |  |  |  |
|            |            |            |           |                   |                    |               | OXY |     |  | ALK |  | CHL | HPLC |    |  |  |  |  |
| 1          | 221        | 658        | 3.298     | BOT               | ✓ 162              |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 2          | 222        | 1475       | 3.349     | 150               | ✓                  |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 3          | 223        | 1483       | 3.842     | 125               | ✓                  |               |     | VV  |  |     |  |     |      |    |  |  |  |  |
| 4          | 224        | 1248       | 3.972     | 100               | ✓                  |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 5          | 225        | 1126       | 4.100     | 75                | ✓                  |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 6          | 226        | 1477       | 4.381     | 50                | ✓                  |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 7          | 227        | 1478       | 4.492     | 40                | ✓                  |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 8          | 228        | 708        | 4.638     | 30                | ✓                  |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 9          | 229        | 1482       | 4.711     | 20                | ✓                  |               |     |     |  |     |  |     | VV   | VV |  |  |  |  |
| 10         | 230        | 1473       | 4.936     | 10                | ✓                  |               |     |     |  |     |  |     | VV   | VV |  |  |  |  |
| 11         | 231        | 1470       | 6.695     | 5                 | ✓                  | ✓             |     |     |  |     |  |     |      |    |  |  |  |  |
| 12         | 232        | 1130       | 6.839     | surf              | ✓                  |               |     |     |  |     |  |     | VV   | VV |  |  |  |  |
| 13         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 14         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 15         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 16         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 17         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 18         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 19         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 20         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 21         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 22         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 23         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |    |  |  |  |  |
| 24         |            |            |           |                   |                    |               |     |     |  |     |  |     |      |    |  |  |  |  |

Comments:

SHIP: Vector  
ENTERED BY:  
CHECKED BY:

Bottom Depth:

Cast # down:  
Cast # up:

| Time    | LOC | UTC   |
|---------|-----|-------|
| Begin:  |     | 17:45 |
| Bottom: |     |       |
| End:    |     |       |

START POSITION (GPS)  
LAT: 49 35.60  
LONG: 124 38.30

BOTTOM POSITION (GPS)  
LAT: 49 35.49  
LONG: 124 38.31

END POSITION (GPS)  
LAT: 49 35.48  
LONG: 124 38.32

ROSETTE LOG

MISSION ID: 2007-43 STATION: 12 CAST NUMBER: 63 UTC DATE (dd/mm/yyyy): 7/6/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |     |     |   |     |  |     |      |  |  |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|-----|-----|---|-----|--|-----|------|--|--|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |     | NUT |   | TCO |  | C13 |      |  |  |  |  |  |
|            |            |            |           |                   |                    |               | OXY |     |   | ALK |  | CHL | HPIC |  |  |  |  |  |
| 1          | 233        | 1471       | 2.562     | Bottom            | ✓ 354              |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 2          | 234        | 1467       | 2.603     | 350               | ✓                  |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 3          | 235        | 1335       | 2.998     | 300               | ✓                  | X             |     |     |   |     |  |     |      |  |  |  |  |  |
| 4          | 236        | 1464       | 3.409     | 250               | ✓                  |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 5          | 237        | 1417       | 3.503     | 200               | ✓                  |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 6          | 238        | 1476       | 3.657     | 175               | ✓                  |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 7          | 239        | 1481       | 3.959     | 150               | ✓                  |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 8          | 240        | 1465       | 4.161     | 125               | ✓                  |               |     | XX  |   |     |  |     |      |  |  |  |  |  |
| 9          | 241        | 1332       | 4.353     | 100               | ✓                  |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 10         | 242        | 1295       | 4.236     | 75                | ✓                  |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 11         | 243        | 1284       | 4.175     | 50                | ✓                  |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 12         | 244        | 1342       | 4.314     | 40                | ✓                  |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 13         | 245        | 1233       | 4.521     | 30                | ✓                  |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 14         | 246        | 1484       | 4.515     | 20                | ✓                  |               |     |     |   |     |  | XX  | XX   |  |  |  |  |  |
| 15         | 247        | 1468       | 5.536     | 10                | ✓                  |               |     |     |   |     |  | XX  | XX   |  |  |  |  |  |
| 16         | 248        | 1336       | 6.673     | 5                 | ✓                  |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 17         | 249        | 1485       | 7.262     | Surf              |                    |               |     | ✓   | ✓ |     |  | XX  | XX   |  |  |  |  |  |
| 18         |            |            |           |                   |                    |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 19         |            |            |           |                   |                    |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 20         |            |            |           |                   |                    |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 21         |            |            |           |                   |                    |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 22         |            |            |           |                   |                    |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 23         |            |            |           |                   |                    |               |     |     |   |     |  |     |      |  |  |  |  |  |
| 24         |            |            |           |                   |                    |               |     |     |   |     |  |     |      |  |  |  |  |  |

Comments:

SHIP: Victor  
ENTERED BY: DT  
CHECKED BY:

Bottom Depth: 357

Cast # down: 63  
Cast # up:

|         |       |     |
|---------|-------|-----|
| Time    | LOC   | UTC |
| Begin:  | 19:49 |     |
| Bottom: |       |     |
| End:    |       |     |

START POSITION (GPS)  
LAT: 49 43.632  
LONG: 124 40.820

BOTTOM POSITION (GPS)  
LAT: 49 43.663  
LONG: 124 40.836

END POSITION (GPS)  
LAT: 49 43.711  
LONG: 124 40.919

ROSETTE LOG

MISSION ID: 2007-43 STATION: 14 CAST NUMBER: 65 UTC DATE (dd/mm/yyyy): 7/06/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |     |     |     |     |     |     |      |       |  |  |  |  |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|-----|-----|-----|-----|-----|-----|------|-------|--|--|--|--|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           | OXY | NUT | TCO | ALK | C13 | CHL | HPIC | Phyto |  |  |  |  |
| 1          | 250        | 570        | 3.046     | Bottom            | ✓                  | 311           |     |     |     |     |     |     |      |       |  |  |  |  |
| 2          | 251        | 505        | 3.009     | 300               | ✓                  |               | X   |     |     |     |     |     |      |       |  |  |  |  |
| 3          | 252        | 468        | 3.286     | 250               | ✓                  |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 4          | 253        | 3133       | 3.452     | 200               | ✓                  |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 5          | 254        | 346        | 3.542     | 175               | ✓                  |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 6          | 255        | 3184       | 3.576     | 150               | ✓                  |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 7          | 256        | 612        | 4.020     | 125               | ✓                  |               |     | XX  |     |     |     |     |      |       |  |  |  |  |
| 8          | 257        | 2090       | 4.235     | 100               | ✓                  |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 9          | 258        | 1331       | 4.076     | 75                | ✓                  |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 10         | 259        | 2075       | 4.398     | 50                | ✓                  |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 11         | 260        | 94         | 4.588     | 40                | ✓                  |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 12         | 261        | 458        | 4.679     | 30                | ✓                  |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 13         | 262        | 1252       | 4.843     | 20                | ✓                  |               |     |     |     |     |     | XX  | XX   |       |  |  |  |  |
| 14         | 263        | 528        | 6.223     | 10                | ✓                  |               |     |     |     |     |     | XX  | XX   |       |  |  |  |  |
| 15         | 264        | 90         | 7.398     | 5                 | ✓                  |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 16         | 265        | 668        | 7.277     | surf              | ✓                  |               |     |     |     |     |     | XX  | XX   | XX    |  |  |  |  |
| 17         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 18         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 19         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 20         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 21         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 22         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 23         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |       |  |  |  |  |
| 24         |            |            |           |                   |                    |               |     |     |     |     |     |     |      |       |  |  |  |  |

Comments:

SHIP: Vector  
ENTERED BY: DT  
CHECKED BY:

Bottom Depth: 314

Cast # down: 65  
Cast # up:

| Time    | LOC   | UTC |
|---------|-------|-----|
| Begin:  | 22:37 |     |
| Bottom: | 22:45 |     |
| End:    | 23:04 |     |

START POSITION (GPS)  
LAT: 49 53.008  
LONG: 124 59.615

BOTTOM POSITION (GPS)  
LAT: 49 53.015  
LONG: 124 59.628

END POSITION (GPS)  
LAT: 49 52.992  
LONG: 124 59.735

ROSETTE LOG

MISSION ID: 2007-43

STATION: 16

CAST NUMBER: 68

UTC DATE (dd/mm/yyyy): 7/6/2007

| Niskin No. | Sample No. | OXY. Flask | OXY. ml/l | ROSETTE OPERATION |                    | Samples taken |  |     |  |     |  |     |   |   |  |  |  |                             |
|------------|------------|------------|-----------|-------------------|--------------------|---------------|--|-----|--|-----|--|-----|---|---|--|--|--|-----------------------------|
|            |            |            |           | Sample Depth      | Confirmed pressure | SAL           |  | NUT |  | TCO |  | C13 |   |   |  |  |  |                             |
|            |            |            |           |                   |                    | OXY           |  |     |  | ALK |  | CHL |   |   |  |  |  |                             |
| 1          | 266        | 658        | 3.974     | 80T               | ✓ 150              |               |  |     |  |     |  |     |   |   |  |  |  | (wrong sample # in oxy cup) |
| 2          | 267        | 1248       | 3.989     | 125               | ✓                  | ✓             |  |     |  |     |  |     |   |   |  |  |  |                             |
| 3          | 268        | 1475       | 4.143     | 100               | ✓                  |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 4          | 269        | 1483       | 4.233     | 75                | ✓                  |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 5          | 270        | 1126       | 4.268     | 50                | ✓                  |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 6          | 271        | 1477       | 4.340     | 40                | ✓                  |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 7          | 272        | 1130       | 5.712     | 30                | ✓                  |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 8          | 273        | 1473       | 5.153     | 20                | ✓                  |               |  |     |  |     |  |     | ✓ | ✓ |  |  |  |                             |
| 9          | 274        | 708        | 5.740     | 10                | ✓                  |               |  |     |  |     |  |     | ✓ | ✓ |  |  |  |                             |
| 10         | 275        | 1482       | 6.577     | 5                 | ✓                  |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 11         | 276        | 1478       | 7.336     | Surf              | ✓                  |               |  |     |  |     |  |     | ✓ | ✓ |  |  |  |                             |
| 12         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 13         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 14         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 15         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 16         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 17         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 18         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 19         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 20         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 21         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 22         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 23         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                             |
| 24         |            |            |           |                   |                    |               |  |     |  |     |  |     |   |   |  |  |  |                             |

Comments:

SHIP: Vel Lev

ENTERED BY: H

CHECKED BY: J

Bottom Depth: 152

Cast # down: 68

Cast # up:

| Time    | LOC | UTC  |
|---------|-----|------|
| Begin:  |     | 2:06 |
| Bottom: |     |      |
| End:    |     |      |

START POSITION (GPS)

LAT: 49 57.712

LONG: 125 8.712

BOTTOM POSITION (GPS)

LAT:

LONG:

END POSITION (GPS)

LAT:

LONG: