

# Chlorophyll Data Sheet

Cruise: 2017-78/201765.

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Dates of Cruise: 2017-10

Time and date acetone added: 16-Oct-2017 (12:20pm) Analyst: N. C. Wu

Time and date out of freezer: 17-Oct-2017 (12:25pm)

Time analysis started: 12:25pm.

| Sample # | Station | Vol<br>filt | Vol<br>acet |    | Rb      |    | Ra      | Comments         |
|----------|---------|-------------|-------------|----|---------|----|---------|------------------|
| Stand-   | by      |             |             | 1- | -0.023  |    |         |                  |
| STD      |         |             | LOW         | 2- | 10.935  |    |         |                  |
| STD      |         |             | HIGH        | 4- | 60.086  |    |         |                  |
| Blank    |         |             |             | 6- | 0.004   | 8- | -0.000  |                  |
| 130      | IS 3    |             | 10          | 1- | 26.008  | 2- | 15.413  |                  |
| 137      | IS 6    |             |             | 3- | 27.706  | 4- | 16.858  |                  |
| 99       | BR-1    |             |             | 5- | 168.485 | 6- | 92.391  |                  |
| 83       | QCST 05 |             |             | 7- | 151.835 | 8- | 90.218  |                  |
| 104      | BR 4    |             |             | 1- | 174.932 | 2- | 92.468  | * diluted in 1/4 |
| 110      | BR 7    |             |             | 3- | 285.600 | 4- | 156.079 |                  |
| 130      | IS 3    |             |             | 5- | 26.043  | 6- | 15.598  |                  |
| 137      | IS 6    |             |             | 7- | 25.689  | 8- | 15.828  |                  |
| 123      | BR 14   |             |             | 1- | 224.537 | 2- | 125.818 |                  |
| 125      | QCST 11 |             |             | 3- | 73.469  | 4- | 43.219  |                  |
| 112      | BR 8    |             |             | 5- | 189.914 | 6- | 112.177 |                  |
| 117      | BR 11   |             |             | 7- | 183.442 | 8- | 104.948 | * diluted in 1/2 |
| 205 A    | 2       |             | 99          | 1- | 9.777   | 2- | 7.633   |                  |
| 208 A    | 2       |             | 10          | 3- | 138.193 | 4- | 80.909  |                  |
| 211 B    | CPE1    |             |             | 5- | 95.152  | 6- | 57.234  |                  |
| 210 A    | CPE1    |             |             | 7- | 58.624  | 8- | 36.140  |                  |
| 306 A    | 22      |             |             | 1- | 26.370  | 2- | 18.365  |                  |
| 301 A    | 16      |             |             | 3- | 28.055  | 4- | 18.104  |                  |
| 288 B    | 14      |             |             | 5- | 15.493  | 6- | 10.310  |                  |
| 291 B    | 14      |             |             | 7- | 34.858  | 8- | 21.595  |                  |
| 289 A    | 14      |             |             | 1- | 17.988  | 2- | 11.434  |                  |
| 258 A    | 9       |             |             | 3- | 22.039  | 4- | 14.000  |                  |
| 260 A    | 9       |             |             | 5- | 26.589  | 6- | 16.053  |                  |
| 304 B    | 16      |             |             | 7- | 35.604  | 8- | 22.307  |                  |
| Stand-by |         |             |             | 1- |         |    |         |                  |
| Std      | Low     |             |             | 2- |         |    |         |                  |
| Std      | High    |             |             | 4- |         |    |         |                  |
| Blank    | by      |             |             | 6- |         | 8- |         |                  |

2017-78  
IS 3  
CHL #130

2017-78  
BR-7  
CHL #110

2017-78  
BR-8  
CHL #112

2017-78  
IS 6  
CHL #137

2017-78  
IS 3  
CHL #130

2017-78  
BR-11  
CHL #117

2017-78  
BR-1  
CHL #117

2017-78  
IS 6  
CHL #127

2017-78  
QCST 03  
CHL #83

2017-78  
BR-14  
CHL #123

2017-78  
BR-4  
CHL #104

2017-78  
QCST 11  
CHL #125

205 A  
CHL

208 A  
CHL

211 B  
CHL

210 A  
CHL

306 A  
CHL

301 A  
CHL

288 B  
CHL

291  
CHL

A 289  
CHL

258 A  
CHL

260 A  
CHL

Stn 2

Stn 2

Stn CPF1

Stn CPF1

Stn 22

Stn 16

Stn 14

Stn 14

Stn 14

Stn 9

Stn 9

2017-65

2017-65

2017-65

2017-65

2017-65

2017-65

2017-65

2017-65

2017-65

2017-65

2017-65

Bot 12

Bot 15

Bot 3

Bot 2

Bot 2

Bot 8

Bot 12

Bot 15

Bot 13

Bot 10

Bot 12

304 B

CHL

Stn 16

2017-65

Bot 11

# Chlorophyll Data Sheet

Cruise: 2017-65

Page: 2 of 3

Dates of Cruise: 2017-10

Time and date acetone added: 16-Oct 2017 (4:00pm) Analyst: Nicole

Time and date out of freezer: 17-Oct 2017 (2:40pm)

Time analysis started: 3:40pm

| Sample # | Station | Vol<br>filt | Vol<br>acet |    | Rb      |    | Ra      | Comments        |
|----------|---------|-------------|-------------|----|---------|----|---------|-----------------|
| Stand-   | by      |             |             | 1- | -0.024  |    |         |                 |
| STD      |         |             | LOW         | 2- | 11.003  |    |         |                 |
| STD      |         |             | HIGH        | 4- | 60.071  |    |         |                 |
| Blank    |         |             |             | 6- | 0.006   | 8- | 0.004   |                 |
| 273 B    | 12      |             | 10          | 1- | 19.025  | 2- | 14.728  |                 |
| 276 A    | 12      |             |             | 3- | 89.143  | 4- | 51.715  |                 |
| 258 B    | 9       |             |             | 5- | 23.732  | 6- | 14.865  |                 |
| 257 B    | 9       |             |             | 7- | 11.944  | 8- | 8.287   |                 |
| 274 B    | 12      |             |             | 1- | 29.766  | 2- | 19.866  |                 |
| 301 B    | 16      |             |             | 3- | 28.370  | 4- | 17.777  |                 |
| 302 A    | 16      |             |             | 5- | 33.289  | 6- | 21.193  |                 |
| 304 A    | 16      |             |             | 7- | 35.359  | 8- | 22.237  |                 |
| 257 A    | 9       |             |             | 1- | 12.727  | 2- | 9.180   |                 |
| 260 B    | 9       |             |             | 3- | 29.220  | 4- | 18.419  |                 |
| 289 B    | 14      |             |             | 5- | 18.868  | 6- | 12.320  |                 |
| 291 A    | 14      |             |             | 7- | 34.752  | 8- | 20.674  |                 |
| 288 A    | 14      |             |             | 1- | 17.461  | 2- | 12.075  |                 |
| 302 B    | 16      |             |             | 3- | 37.654  | 4- | 23.417  |                 |
| 305 A    | 22      |             |             | 5- | 16.303  | 6- | 12.402  |                 |
| 209 A    | CPF1    |             |             | 7- | 15.478  | 8- | 10.917  |                 |
| 307 B    | 22      |             |             | 1- | 102.025 | 2- | 54.117  |                 |
| 226 B    | 3       |             |             | 3- | 13.660  | 4- | 11.052  |                 |
| 191 B    | 24      |             |             | 5- | 18.053  | 6- | 13.206  |                 |
| 192 B    | 24      |             |             | 7- | 72.041  | 8- | 44.861  |                 |
| 193 B    | 24      |             |             | 1- | 183.625 | 2- | 101.071 | *diluted in 1/2 |
| 191 A    | 24      |             |             | 3- | 21.608  | 4- | 16.260  |                 |
| 206 B    | 2       |             |             | 5- | 26.675  | 6- | 17.719  |                 |
| 225 A    | 3       |             |             | 7- | 32.886  | 8- | 20.992  |                 |
| Stand-by |         |             |             | 1- | -0.022  |    |         |                 |
| Std      | Low     |             |             | 2- | 10.996  |    |         |                 |
| Std      | High    |             |             | 4- | 59.886  |    |         |                 |
| Blank    | by      |             |             | 6- | 0.004   | 8- | 0.001   |                 |

[illegible]

# Chlorophyll Data Sheet

Cruise: 2017-65

Page: 3 of 8

Dates of Cruise: 10/17

Time and date acetone added: 17-Oct 2017 (12:20pm) Analyst: Nicole

Time and date out of freezer: 18-Oct 2017 (10:25am)

Time analysis started:

| Sample # | Station | Vol<br>filt | Vol<br>acet |    | Rb      |    | Ra      | Comments       |
|----------|---------|-------------|-------------|----|---------|----|---------|----------------|
| Stand-   | by      |             |             | 1- | -0.023  |    |         |                |
| STD      |         |             | LOW         | 2- | 10.977  |    |         |                |
| STD      |         |             | HIGH        | 4- | 60.031  |    |         |                |
| Blank    |         |             |             | 6- | 0.003   | 8- | 0.001   |                |
| 40B      | 72      |             | (gnl)       | 1- | 198.101 | 2- | 104.213 |                |
| 47A      | 72      |             |             | 3- | 121.321 | 4- | 66.923  |                |
| 48A      | 72      |             |             | 5- | 183.676 | 6- | 98.045  |                |
| 50A      | 72      |             |             | 7- | 148.779 | 8- | 75.878  |                |
| 34B      | 75      |             |             | 1- | 28.178  | 2- | 17.258  |                |
| 35A      | 75      |             |             | 3- | 42.893  | 4- | 24.893  |                |
| 34A      | 75      |             |             | 5- | 27.903  | 6- | 17.154  |                |
| 37A      | 75      |             |             | 7- | 83.866  | 8- | 46.505  |                |
| 23A      | 102     |             |             | 1- | 48.955  | 2- | 27.830  |                |
| 21B      | 102     |             |             | 3- | 33.759  | 4- | 21.473  |                |
| 20A      | 102     |             |             | 5- | 28.601  | 6- | 16.834  |                |
| 9A       | SI      |             |             | 7- | 180.985 | 8- | 93.757  | diluted in 1/4 |
| 6B       | SI      |             |             | 1- | 33.929  | 2- | 21.880  |                |
| 7B       | SI      |             |             | 3- | 168.001 | 4- | 88.158  |                |
| 224A     | 3       |             |             | 5- | 12.907  | 6- | 10.152  |                |
| 225B     | 3       |             |             | 7- | 33.370  | 8- | 20.984  |                |
| 227B     | 3       |             |             | 1- | 104.136 | 2- | 60.903  |                |
| 232A     | BS17?   |             |             | 3- | 99.698  | 4- | 58.931  |                |
| 235B     | BS17    |             |             | 5- | 197.451 | 6- | 109.748 |                |
| 233B     | BS17    |             |             | 7- | 124.981 | 8- | 73.115  |                |
| 273A     | 12      |             |             | 1- | 32.585  | 2- | 27.057  |                |
| 246A     | 6       |             |             | 3- | 14.868  | 4- | 9.747   |                |
| 248B     | 6       |             |             | 5- | 53.376  | 6- | 32.455  |                |
| 245B     | 6       |             |             | 7- | 11.394  | 8- | 8.618   |                |
| Stand-by |         |             |             | 1- |         |    |         |                |
| Std      | Low     |             |             | 2- |         |    |         |                |
| Std      | High    |             |             | 4- |         |    |         |                |
| Blank    | by      |             |             | 6- |         | 8- |         |                |

[illegible]

[illegible]

# Chlorophyll Data Sheet

Cruise: 2017-05

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Dates of Cruise: 10/17

Time and date acetone added: 17-Oct-2017 (3:05pm) Analyst: Nicole

Time and date out of freezer: 18-Oct-2017 (1:00pm)

Time analysis started:

\* exposed  
for lab  
lights for  
3 min.

| Sample # | Station | Vol<br>filt | Vol<br>acet |    | Rb      |    | Ra      | Comments |
|----------|---------|-------------|-------------|----|---------|----|---------|----------|
| Stand-   | by      |             |             | 1- | -0.022  |    |         |          |
| STD      |         |             | LOW         | 2- | 10.917  |    |         |          |
| STD      |         |             | HIGH        | 4- | 60.149  |    |         |          |
| Blank    |         |             |             | 6- | -0.003  | 8- | -0.004  |          |
| 47B      | 72      |             | 10          | 1- | 134.396 | 2- | 73.168  |          |
| 60B      | 69      |             |             | 3- | 208.108 | 4- | 110.177 |          |
| 62A      | 69      |             |             | 5- | 167.778 | 6- | 89.236  |          |
| 59A      | 69      |             |             | 7- | 123.649 | 8- | 67.473  |          |
| 69A      | adcp    |             |             | 1- | 61.174  | 2- | 34.605  |          |
| 50B      | 72      |             |             | 3- | 138.443 | 4- | 73.401  |          |
| 72A      | adcp    |             |             | 5- | 136.894 | 6- | 73.183  |          |
| 79B      | 65      |             |             | 7- | 117.851 | 8- | 64.611  |          |
| 80A      | 65      |             |             | 1- | 109.557 | 2- | 60.333  |          |
| 82A      | 65      |             |             | 3- | 141.861 | 4- | 75.765  |          |
| 94A      | 62      |             |             | 5- | 100.950 | 6- | 55.062  |          |
| 70A      | adcp    |             |             | 7- | 80.422  | 8- | 44.960  |          |
| 84A      | 63      |             |             | 1- | 97.434  | 2- | 54.450  |          |
| 83A      | 63      |             |             | 3- | 100.923 | 4- | 56.578  |          |
| 85B      | 63      |             |             | 5- | 87.330  | 6- | 48.505  |          |
| 93A      | 62      |             |             | 7- | 96.448  | 8- | 52.591  |          |
| 95B      | 62      |             |             | 1- | 104.451 | 2- | 56.870  |          |
| 95A      | 62      |             |             | 3- | 111.621 | 4- | 60.285  |          |
| 108A     | 59      |             |             | 5- | 72.505  | 6- | 41.689  |          |
| 107A     | 59      |             |             | 7- | 77.675  | 8- | 43.501  |          |
| 110B     | 65      |             |             | 1- | 75.860  | 2- | 43.008  |          |
| 107B     | 59      |             |             | 3- | 73.465  | 4- | 41.267  |          |
| 122A     | 56      |             |             | 5- | 44.211  | 6- | 28.435  |          |
| 123A     | 56      |             |             | 7- | 48.443  | 8- | 30.816  |          |
| Stand-by |         |             |             | 1- | -0.019  |    |         |          |
| Std      | Low     |             |             | 2- | 10.992  |    |         |          |
| Std      | High    |             |             | 4- | 59.811  |    |         |          |
| Blank    | by      |             |             | 6- | -0.001  | 8- | -0.003  |          |

|             |             |             |             |             |             |             |             |             |             |             |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 47<br>B CHL | 60<br>B CHL | 62<br>A CHL | 59<br>A CHL | 69<br>A CHL | 50<br>B CHL | 72<br>A CHL | 79<br>B CHL | 80<br>A CHL | 82<br>A CHL | 94<br>A CHL |
| Stn 72      | Stn 69      | Stn 69      | Stn 69      | Stn adcp    | Stn 72      | Stn adcp    | Stn 65      | Stn 65      | Stn 65      | Stn 62      |
| 2017-65     | 2017-65     | 2017-65     | 2017-65     | 2017-65     | 2017-65     | 2017-65     | 2017-65     | 2017-65     | 2017-65     | 2017-65     |
| Bot 10      | Bot 10      | Bot 12      | Bot 9       | Bot 7       | Bot 13      | Bot 10      | Bot 7       | Bot 8       | Bot 10      | Bot 9       |

|             |             |             |             |             |             |             |              |              |              |              |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| 70<br>A CHL | 84<br>A CHL | 85<br>A CHL | 85<br>B CHL | 93<br>A CHL | 96<br>B CHL | 96<br>A CHL | 108<br>A CHL | 107<br>A CHL | 110<br>B CHL | 107<br>B CHL |
| Stn adcp    | Stn 63      | Stn 63      | Stn 63      | Stn 62      | Stn 62      | Stn 62      | Stn 59       | Stn 59       | Stn 59       | Stn 59       |
| 2017-65     | 2017-65     | 2017-65     | 2017-65     | 2017-65     | 2017-65     | 2017-65     | 2017-65      | 2017-65      | 2017-65      | 2017-65      |
| Bot 8       | Bot 2       | Bot 1       | Bot 3       | Bot 8       | Bot 10      | Bot 10      | Bot 12       | Bot 11       | Bot 14       | Bot 11       |

|              |              |
|--------------|--------------|
| 122<br>A CHL | 123<br>A CHL |
| Stn 56       | Stn 56       |
| 2017-65      | 2017-65      |
| Bot 11       | Bot 12       |

# Chlorophyll Data Sheet

Cruise: 2017-65.

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Dates of Cruise: 10/17

Time and date acetone added: 18-Oct-2017 (11:15am) Analyst: NICOL

Time and date out of freezer: 19-Oct-2017 (9:30am)

Time analysis started: 10:30am

| Sample # | Station | Vol<br>filt | Vol<br>acet |    | Rb      |    | Ra      | Comments                            |
|----------|---------|-------------|-------------|----|---------|----|---------|-------------------------------------|
| Stand-   | by      |             |             | 1- | -0.021  |    |         |                                     |
| STD      |         |             | LOW         | 2- | 11.056  |    |         |                                     |
| STD      |         |             | HIGH        | 4- | 59.910  |    |         |                                     |
| Blank    |         |             |             | 6- | 0.007   | 8- | 0.006   |                                     |
| 235A     | BS17    |             |             | 1- | 212.547 | 2- | 114.882 |                                     |
| 232B     | BS17    |             |             | 3- | 104.568 | 4- | 61.261  |                                     |
| 233A     | BS17    |             |             | 5- | 115.149 | 6- | 66.242  |                                     |
| 245A     | 6       |             |             | 7- | 10.2    | 8- | 8.114   | *comp. didn't record #9 (2019-2010) |
| 246B     | 6       |             |             | 1- | 15.829  | 2- | 11.033  |                                     |
| 1248A    | 6       |             |             | 3- | 54.308  | 4- | 32.829  |                                     |
| 135B     | 46      |             |             | 5- | 53.065  | 6- | 32.543  |                                     |
| 189B     | 27      |             |             | 7- | 236.448 | 8- | 135.082 |                                     |
| 167B     | 39      |             |             | 1- | 31.132  | 2- | 21.307  |                                     |
| 153B     | 42      |             |             | 3- | 134.615 | 4- | 77.657  |                                     |
| 150B     | 42      |             |             | 5- | 20.961  | 6- | 15.778  | test tube 3/4 full                  |
| 186A     | 27      |             |             | 7- | 19.019  | 8- | 13.510  | *used 3 drops of HCl (split + same) |
| 187B     | 27      |             |             | 1- | 49.829  | 2- | 31.022  |                                     |
| 170B     | 39      |             |             | 3- | 176.975 | 4- | 101.845 |                                     |
| 168B     | 39      |             |             | 5- | 161.525 | 6- | 93.167  |                                     |
| 153A     | 40      |             |             | 7- | 138.904 | 8- | 81.535  |                                     |
| 151B     | 40      |             |             | 1- | 29.546  | 2- | 18.996  |                                     |
| 137B     | 46      |             |             | 3- | 150.164 | 4- | 87.883  |                                     |
| 134A     | 46      |             |             | 5- | 16.494  | 6- | 11.959  |                                     |
| 173B     | GE01    |             |             | 7- | 92.166  | 8- | 56.221  |                                     |
| 172B     | GE01    |             |             | 1- | 76.007  | 2- | 46.894  |                                     |
| 171A     | GE01    |             |             | 3- | 16.805  | 4- | 13.292  |                                     |
| 125A     | 56      |             |             | 5- | 74.319  | 6- | 44.653  |                                     |
| 123B     | 56      |             |             | 7- | 50.576  | 8- |         |                                     |
| Stand-by |         |             |             | 1- |         |    |         |                                     |
| Std      | Low     |             |             | 2- |         |    |         |                                     |
| Std      | High    |             |             | 4- |         |    |         |                                     |
| Blank    | by      |             |             | 6- |         | 8- |         |                                     |

235  
CHL232  
CHL233  
CHL245A  
CHL

246  
CHL

248A  
CHL

135 B  
CHL

189  
CHL

167B  
CHL

153  
CHL

150  
CHL

|          |          |          |         |         |         |         |         |         |         |         |
|----------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| Stn BS17 | Stn BS17 | Stn BS17 | Stn 6   | Stn 6   | Stn 6   | Stn 46  | Stn 27  | Stn 39  | Stn 42  | Stn 42  |
| 2017-65  | 2017-65  | 2017-65  | 2017-65 | 2017-65 | 2017-65 | 2017-65 | 2017-65 | 2017-65 | 2017-65 | 2017-65 |
| Bot 8    | Bot 5    | Bot 6    | Bot 10  | Bot 11  | Bot 13  | Bot 10  | Bot 16  | Bot 14  | Bot 16  | Bot 13  |

186A  
CHL

187 B  
CHL

170  
CHL

168  
CHL

153  
CHL

151  
CHL

137 B  
CHL

134A  
CHL

173 B  
CHL

172B  
CHL

171A  
CHL

|         |         |         |         |         |         |         |         |          |          |          |
|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|
| Stn 27  | Stn 27  | Stn 39  | Stn 39  | Stn 42  | Stn 42  | Stn 46  | Stn 46  | Stn GE01 | Stn GE01 | Stn GE01 |
| 2017-65 | 2017-65 | 2017-65 | 2017-65 | 2017-65 | 2017-65 | 2017-65 | 2017-65 | 2017-65  | 2017-65  | 2017-65  |
| Bot 13  | Bot 14  | Bot 17  | Bot 15  | Bot 16  | Bot 14  | Bot 12  | Bot 9   | Bot 3    | Bot 2    | Bot 1    |

125 A  
CHL

123 B  
CHL

Stn 56  
2017-65  
Bot 14

Stn 56  
2017-65  
Bot 12

# Chlorophyll Data Sheet

Cruise: 2017-65

Page: 6 of 8

\* 150 A 9.9ml  
(some acetone  
leaked out  
while swirling)

Dates of Cruise: 10/17

Time and date acetone added: 18-Oct-2017 (4:10 pm) Analyst: NIGAN

Time and date out of freezer: 19-Oct-2017 (2:08 pm)

Time analysis started: 3:10 pm

| Sample # | Station | Vol<br>filt | Vol<br>acet |    | Rb      |    | Ra      | Comments         |
|----------|---------|-------------|-------------|----|---------|----|---------|------------------|
| Stand-   | by      |             |             | 1- | -0.021  |    |         |                  |
| STD      |         |             | LOW         | 2- | 11.050  |    |         |                  |
| STD      |         |             | HIGH        | 4- | 59.890  |    |         |                  |
| Blank    |         |             |             | 6- | 0.003   | 8- | 0.002   |                  |
| 305B     | 22      |             | 10          | 1- | 14.657  | 2- | 11.149  |                  |
| 307 A    | 22      |             |             | 3- | 108.560 | 4- | 62.711  |                  |
| 209 B    | CPFI    |             |             | 5- | 12.785  | 6- | 9.284   |                  |
| 211A     | CPFI    |             |             | 7- | 98.386  | 8- | 58.851  |                  |
| 192 A    | 24      |             |             | 1- | 72.777  | 2- | 45.706  |                  |
| 193 A    | 24      |             |             | 3- | 191.521 | 4- | 104.001 | * diluted in 1/2 |
| 210 B    | CPFI    |             |             | 5- | 55.948  | 6- | 34.455  |                  |
| 206 A    | 2       |             |             | 7- | 26.542  | 8- | 17.007  |                  |
| 205 B    | 2       |             |             | 1- | 11.744  | 2- | 8.785   |                  |
| 208 B    | 2       |             |             | 3- | 136.312 | 4- | 80.279  |                  |
| 227 A    | 3       |             |             | 5- | 102.314 | 6- | 61.256  |                  |
| 276 B    | 12      |             |             | 7- | 90.308  | 8- | 52.935  |                  |
| 274 A    | 12      |             |             | 1- | 24.825  | 2- | 15.504  |                  |
| 306 B    | 22      |             |             | 3- | 23.306  | 4- | 15.371  |                  |
| 135 A    | 46      |             | ✓           | 5- | 53.226  | 6- | 33.279  |                  |
| 150 A    | 42      |             | 9.9         | 7- | 18.703  | 8- | 14.059  |                  |
| 137 A    | 46      |             | 10          | 1- | 145.491 | 2- | 84.865  |                  |
| 170 A    | 39      |             |             | 3- | 174.457 | 4- | 102.061 |                  |
| 186 B    | 27      |             |             | 5- | 18.823  | 6- | 13.287  |                  |
| 187 A    | 27      |             |             | 7- | 50.965  | 8- | 31.650  |                  |
| 189 A    | 27      |             |             | 1- | 233.755 | 2- | 134.723 |                  |
| 167 A    | 39      |             |             | 3- | 34.539  | 4- | 24.773  |                  |
| 168 A    | 39      |             |             | 5- | 166.422 | 6- | 96.632  |                  |
| 151 A    | 42      |             | ✓           | 7- | 32.914  | 8- | 21.633  |                  |
| Stand-by |         |             |             | 1- | -0.024  |    |         |                  |
| Std      | Low     |             |             | 2- | 11.026  |    |         |                  |
| Std      | High    |             |             | 4- | 59.884  |    |         |                  |
| Blank    | by      |             |             | 6- | 0.002   | 8- | 0.000   |                  |

|                                           |                                           |                                             |                                             |                                           |                                           |                                             |                                           |                                           |                                           |                                           |
|-------------------------------------------|-------------------------------------------|---------------------------------------------|---------------------------------------------|-------------------------------------------|-------------------------------------------|---------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| 305B<br>CHL<br>Stn 22<br>2017-65<br>Bot 1 | 307A<br>CHL<br>Stn 22<br>2017-65<br>Bot 3 | 209B<br>CHL<br>Stn CPF1<br>2017-65<br>Bot 1 | 211A<br>CHL<br>Stn CPF1<br>2017-65<br>Bot 3 | 192A<br>CHL<br>Stn 24<br>2017-65<br>Bot 2 | 193A<br>CHL<br>Stn 24<br>2017-65<br>Bot 3 | 210B<br>CHL<br>Stn CPF1<br>2017-65<br>Bot 2 | 206A<br>CHL<br>Stn 2<br>2017-65<br>Bot 13 | 205B<br>CHL<br>Stn 2<br>2017-65<br>Bot 12 | 208B<br>CHL<br>Stn 2<br>2017-65<br>Bot 15 | 227A<br>CHL<br>Stn 3<br>2017-65<br>Bot 16 |
|-------------------------------------------|-------------------------------------------|---------------------------------------------|---------------------------------------------|-------------------------------------------|-------------------------------------------|---------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|

|                                            |                                            |                                           |                                            |                                            |                                            |                                            |                                            |                                            |                                            |                                            |
|--------------------------------------------|--------------------------------------------|-------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| 276B<br>CHL<br>Stn 12<br>2017-65<br>Bot 16 | 274A<br>CHL<br>Stn 12<br>2017-65<br>Bot 14 | 306B<br>CHL<br>Stn 22<br>2017-65<br>Bot 2 | 135A<br>CHL<br>Stn 46<br>2017-65<br>Bot 10 | 150A<br>CHL<br>Stn 42<br>2017-65<br>Bot 13 | 137A<br>CHL<br>Stn 46<br>2017-65<br>Bot 12 | 170A<br>CHL<br>Stn 39<br>2017-65<br>Bot 17 | 186B<br>CHL<br>Stn 27<br>2017-65<br>Bot 13 | 187A<br>CHL<br>Stn 27<br>2017-65<br>Bot 14 | 189A<br>CHL<br>Stn 27<br>2017-65<br>Bot 16 | 167A<br>CHL<br>Stn 39<br>2017-65<br>Bot 14 |
|--------------------------------------------|--------------------------------------------|-------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|

|                                            |                                            |
|--------------------------------------------|--------------------------------------------|
| 168A<br>CHL<br>Stn 39<br>2017-65<br>Bot 15 | 151A<br>CHL<br>Stn 42<br>2017-65<br>Bot 14 |
|--------------------------------------------|--------------------------------------------|

# Chlorophyll Data Sheet

Cruise: 2017-105

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Dates of Cruise: 10/17

Time and date acetone added: 19-Oct-2017 (11:40am)

Analyst: N Cole

Time and date out of freezer: 20-Oct-2017 (9:45)

Time analysis started: 10:40am

| Sample # | Station | Vol<br>filt | Vol<br>acet |    | Rb      |    | Ra      | Comments |
|----------|---------|-------------|-------------|----|---------|----|---------|----------|
| Stand-   | by      |             |             | 1- | -0.020  |    |         |          |
| STD      |         |             | LOW         | 2- | 10.974  |    |         |          |
| STD      |         |             | HIGH        | 4- | 60.317  |    |         |          |
| Blank    |         |             |             | 6- | 0.004   | 8- | 0.000   |          |
| 37B      | 75      | ~35         |             | 1- | 87.049  | 2- | 47.624  |          |
| 35B      | 75      |             |             | 3- | 43.425  | 4- | 25.867  |          |
| 60A      | 69      |             |             | 5- | 209.430 | 6- | 110.861 |          |
| 62B      | 69      |             |             | 7- | 171.032 | 8- | 90.512  |          |
| 59B      | 69      |             |             | 1- | 124.773 | 2- | 68.223  |          |
| 80B      | 65      |             |             | 3- | 106.649 | 4- | 58.378  |          |
| 82B      | 65      |             |             | 5- | 143.290 | 6- | 77.010  |          |
| 79A      | 65      |             |             | 7- | 105.292 | 8- | 58.091  |          |
| 94B?     | 62      |             |             | 1- | 103.599 | 2- | 56.132  |          |
| 70B      | adcp    |             |             | 3- | 81.737  | 4- | 45.770  |          |
| 83B      | 63      |             |             | 5- | 96.736  | 6- | 53.696  |          |
| 84B      | 63      |             |             | 7- | 100.336 | 8- | 56.411  |          |
| 85A      | 63      |             |             | 1- | 89.212  | 2- | 50.048  |          |
| 72B      | adcp    |             |             | 3- | 142.060 | 4- | 75.843  |          |
| 134B     | 46      |             |             | 5- | 15.871  | 6- | 11.635  |          |
| 172A     | GE01    |             |             | 7- | 77.636  | 8- | 46.605  |          |
| 173A     | GE01    |             |             | 1- | 94.957  | 2- | 58.556  |          |
| 171B     | GE01    |             |             | 3- | 22.347  | 4- | 17.939  |          |
| 125B     | 56      |             |             | 5- | 73.163  | 6- | 43.658  |          |
| 122B     | 56      |             |             | 7- | 44.322  | 8- | 27.229  |          |
| 110A     | 59      |             |             | 1- | 80.849  | 2- | 45.293  |          |
| 108B     | 59      |             |             | 3- | 71.061  | 4- | 40.642  |          |
| 93B      | 62      |             |             | 5- | 100.363 | 6- | 55.104  |          |
| 69B      | adcp    |             |             | 7- | 57.504  | 8- | 33.380  |          |
| Stand-by |         |             |             | 1- |         |    |         |          |
| Std      | Low     |             |             | 2- |         |    |         |          |
| Std      | High    |             |             | 4- |         |    |         |          |
| Blank    | by      |             |             | 6- |         | 8- |         |          |

|                                                   |                                                   |                                                   |                                                   |                                                  |                                                  |                                                   |                                                  |                                                  |                                                    |                                                  |
|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|--------------------------------------------------|--------------------------------------------------|---------------------------------------------------|--------------------------------------------------|--------------------------------------------------|----------------------------------------------------|--------------------------------------------------|
| 37 <b>B</b><br>CHL<br>Stn 75<br>2017-65<br>Bot 14 | 35 <b>B</b><br>CHL<br>Stn 75<br>2017-65<br>Bot 12 | 60 <b>A</b><br>CHL<br>Stn 69<br>2017-65<br>Bot 10 | 62 <b>B</b><br>CHL<br>Stn 69<br>2017-65<br>Bot 12 | 59 <b>B</b><br>CHL<br>Stn 69<br>2017-65<br>Bot 9 | 80 <b>B</b><br>CHL<br>Stn 65<br>2017-65<br>Bot 8 | 82 <b>B</b><br>CHL<br>Stn 65<br>2017-65<br>Bot 10 | 79 <b>A</b><br>CHL<br>Stn 65<br>2017-65<br>Bot 7 | 94 <b>B</b><br>CHL<br>Stn 62<br>2017-65<br>Bot 9 | 70 <b>B</b><br>CHL<br>Stn adcp<br>2017-65<br>Bot 8 | 83 <b>B</b><br>CHL<br>Stn 63<br>2017-65<br>Bot 1 |
|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|--------------------------------------------------|--------------------------------------------------|---------------------------------------------------|--------------------------------------------------|--------------------------------------------------|----------------------------------------------------|--------------------------------------------------|

|                                                  |                                                  |                                                     |                                                   |                                                     |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |
|--------------------------------------------------|--------------------------------------------------|-----------------------------------------------------|---------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|
| 84 <b>B</b><br>CHL<br>Stn 60<br>2017-65<br>Bot 2 | 85 <b>A</b><br>CHL<br>Stn 63<br>2017-65<br>Bot 3 | 72 <b>B</b><br>CHL<br>Stn adcp<br>2017-65<br>Bot 10 | 134 <b>B</b><br>CHL<br>Stn 46<br>2017-65<br>Bot 9 | 172 <b>A</b><br>CHL<br>Stn GE01<br>2017-65<br>Bot 2 | 173 <b>A</b><br>CHL<br>Stn GE01<br>2017-65<br>Bot 3 | 171 <b>B</b><br>CHL<br>Stn GE01<br>2017-65<br>Bot 1 | 125 <b>B</b><br>CHL<br>Stn 56<br>2017-65<br>Bot 14 | 122 <b>B</b><br>CHL<br>Stn 56<br>2017-65<br>Bot 11 | 110 <b>A</b><br>CHL<br>Stn 59<br>2017-65<br>Bot 14 | 108 <b>B</b><br>CHL<br>Stn 59<br>2017-65<br>Bot 12 |
|--------------------------------------------------|--------------------------------------------------|-----------------------------------------------------|---------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|

|                                                  |                                                    |
|--------------------------------------------------|----------------------------------------------------|
| 93 <b>B</b><br>CHL<br>Stn 62<br>2017-65<br>Bot 8 | 69 <b>B</b><br>CHL<br>Stn adcp<br>2017-65<br>Bot 7 |
|--------------------------------------------------|----------------------------------------------------|

# Chlorophyll Data Sheet

Cruise: 2017-15

Page: 8 of 8

Dates of Cruise: 10/17

Time and date acetone added: 19 Oct 2017 (2:00pm) Analyst: NLOU

Time and date out of freezer: 12:00 Oct 20, 2017

Time analysis started: 1:00

| Sample # | Station | Vol<br>filt | Vol<br>acet |    | Rb      |    | Ra      | Comments        |
|----------|---------|-------------|-------------|----|---------|----|---------|-----------------|
| Stand-   | by      |             |             | 1- | -0.025  |    |         |                 |
| STD      |         |             | LOW         | 2- | 11.005  |    |         |                 |
| STD      |         |             | HIGH        | 4- | 59.792  |    |         |                 |
| Blank    |         |             |             | 6- | 0.005   | 8- | 0.002   |                 |
| 20 B     | 102     |             |             | 1- | 30.448  | 2- | 18.298  |                 |
| 21 A     | 102     |             |             | 3- | 42.522  | 4- | 27.601  |                 |
| 23 B     | 102     |             |             | 5- | 51.232  | 6- | 29.194  |                 |
| 7A       | SI      |             |             | 7- | 180.913 | 8- | 101.044 |                 |
| 6A       | SI      |             |             | 1- | 35.604  | 2- | 23.261  |                 |
| 9B       | SI      |             |             | 3- | 166.029 | 4- | 88.044  | *diluted in 1/4 |
|          |         |             |             | 5- |         | 6- |         |                 |
|          |         |             |             | 7- |         | 8- |         |                 |
|          |         |             |             | 1- |         | 2- |         |                 |
|          |         |             |             | 3- |         | 4- |         |                 |
|          |         |             |             | 5- |         | 6- |         |                 |
|          |         |             |             | 7- |         | 8- |         |                 |
|          |         |             |             | 1- |         | 2- |         |                 |
|          |         |             |             | 3- |         | 4- |         |                 |
|          |         |             |             | 5- |         | 6- |         |                 |
|          |         |             |             | 7- |         | 8- |         |                 |
|          |         |             |             | 1- |         | 2- |         |                 |
|          |         |             |             | 3- |         | 4- |         |                 |
|          |         |             |             | 5- |         | 6- |         |                 |
|          |         |             |             | 7- |         | 8- |         |                 |
|          |         |             |             |    |         |    |         |                 |
|          |         |             |             |    |         |    |         |                 |
| Stand-by |         |             |             | 1- | -0.021  |    |         |                 |
| Std      | Low     |             |             | 2- | 11.011  |    |         |                 |
| Std      | High    |             |             | 4- | 59.872  |    |         |                 |
| Blank    | by      |             |             | 6- | 0.014   | 8- | 0.007   |                 |

|             |             |             |            |            |            |
|-------------|-------------|-------------|------------|------------|------------|
| 20 <b>B</b> | 21 <b>A</b> | 23 <b>B</b> | 7 <b>A</b> | 6 <b>A</b> | 9 <b>B</b> |
| CHL         | CHL         | CHL         | CHL        | CHL        | CHL        |
| Stn 102     | Stn 102     | Stn 102     | Stn SI     | Stn SI     | Stn SI     |
| 2017-65     | 2017-65     | 2017-65     | 2017-65    | 2017-65    | 2017-65    |
| Bot 11      | Bot 12      | Bot 14      | Bot 7      | Bot 6      | Bot 9      |