

$$K_{15} \times 2 = 1.99972$$

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**Water Properties Group**

Institute of Ocean Sciences, Ocean Sciences Division

# AUTOSAL ANALYSIS LOGSHEET

|                                                            |  |                                    |  |                                                         |  |
|------------------------------------------------------------|--|------------------------------------|--|---------------------------------------------------------|--|
| Cruise ID: <u>2022-052</u>                                 |  | Cast/Station Name: _____           |  | Analysis Date (dd   mmm   yyyy): <u>10   Jan   2023</u> |  |
| Autosal Model: _____                                       |  | Serial Number: <u>73274</u>        |  |                                                         |  |
| Initial Standby Value: <u>24+5980</u>                      |  | Ratio After Standardization: _____ |  |                                                         |  |
| <b>Cell Standardization (Daily)</b>                        |  | <b>Standardization Values:</b>     |  | <b>Standard Info.</b>                                   |  |
| Conductivity must be $\pm 0.00001$<br>compared to Standard |  | Before: <u>4.80</u>                |  | K <sub>15</sub> VALUE: 0.999 <u>86</u>                  |  |
|                                                            |  | After: _____                       |  | Batch #: <u>P165</u>                                    |  |
|                                                            |  | Notes: _____                       |  | Batch Date: <u>April 2024</u>                           |  |
|                                                            |  |                                    |  | Bath Temperature: <u>24</u> °C                          |  |
|                                                            |  |                                    |  | Sample Temperature: <u>22</u> °C                        |  |
|                                                            |  |                                    |  | Room Temperature: <u>22</u> °C                          |  |
|                                                            |  |                                    |  | Analyst: <u>PH</u>                                      |  |

| Sample | Station Name | Depth/Nisk# | Salinity 1 | Salinity 2 | Salinity 3 | Comments             |
|--------|--------------|-------------|------------|------------|------------|----------------------|
|        | calibr       |             | 1.99973    |            |            |                      |
|        | P165         |             | 1.99974    | 1.99972    |            |                      |
|        | DWR          |             | 1.99774    | 1.99776    |            | sal = 34.955         |
|        | DWR          |             | 1.99784    | 1.99766    |            | sal = 34.9536 ✓      |
| 1      | CGN-M        | 1           | 1.67282    | 1.67284    |            |                      |
| 9      | CGN-M        | 9           | 1.62447    | 1.62447    |            |                      |
| 17     | CGS-M        | 4           | 1.67294    | 1.67291    |            |                      |
| 25     | CGS-M        | 12          | 1.61770    | 1.61765    | 1.61767    |                      |
| 26     | CGS-M        | 13          | 1.59584    | 1.59585    |            |                      |
| 18     | CGS-M        | 5           | 1.67173    | 1.67174    | 1.67173    |                      |
| 10     | CGN-M        | 10          | 1.61073    | 1.61070    |            |                      |
| 2      | CGN-M        | 2           | 1.66976    | 1.66978    |            |                      |
| 27     | CGS-M        | 14A         | 1.53215    | 1.53219    |            |                      |
| 19     | CGS-M        | 6A          | 1.66836    | 1.66836    |            |                      |
| 11     | CGN-M        | 11          | 1.60676    | 1.60675    |            |                      |
| 3      | CGN-M        | 3A          | 1.66167    | 1.66169    |            |                      |
| 28     | CGS-M        | 15          | 1.50573    | 1.50573    |            |                      |
| 20     | CGS-M        | 7           | 1.65707    | 1.65708    |            |                      |
| 12     | CGN-M        | 12          | 1.53200    | 1.53203    |            |                      |
| 4      | CGN-M        | 4           | 1.65448    | 1.65450    |            |                      |
| 29     | CGS-M        | 16          | 1.46981    | 1.46987    |            |                      |
| 21     | CGS-M        | 8           | 1.65077    | 1.65078    |            |                      |
| 13     | CGN-M        | 13          | 1.48159    | 1.48159    |            |                      |
| 5      | CGN-M        | 5           | 1.65020    | 1.65020    |            |                      |
| 30     | CGS-M        | 17          | 1.45370    | 1.45370    |            | Final Standby Value: |
| 22     | CGS-M        | 9           | 1.64167    | 1.64169    |            |                      |

Notes: \_\_\_\_\_

## AUTOSAL ANALYSIS LOGSHEET

|                                                            |                                |                                    |                                       |                                                            |  |
|------------------------------------------------------------|--------------------------------|------------------------------------|---------------------------------------|------------------------------------------------------------|--|
| Cruise ID: <u>2022-052</u>                                 |                                | Cast/Station Name: _____           |                                       | Analysis Date (dd   mmm   yyyy):<br><u>10   Jan   2023</u> |  |
| Autosal Model: _____                                       |                                | Serial Number: <u>73274</u>        |                                       |                                                            |  |
| Initial Standby Value: _____                               |                                | Ratio After Standardization: _____ |                                       |                                                            |  |
| <b>Cell Standardization (Daily)</b>                        | <b>Standardization Values:</b> | <b>Standard Info.</b>              | <b>Bath Temperature:</b> <u>24</u> °C |                                                            |  |
| Conductivity must be $\pm 0.00001$<br>compared to Standard | Before: _____                  | K <sub>15</sub> VALUE: 0.999 _____ | Sample Temperature: <u>22</u> °C      |                                                            |  |
|                                                            | After: _____                   | Batch #: _____                     | Room Temperature: <u>22</u> °C        |                                                            |  |
|                                                            | Notes: _____                   | Batch Date: _____                  | Analyst: <u>PH</u>                    |                                                            |  |

| Sample | Station Name | Depth/Nisk# | Salinity 1 | Salinity 2 | Salinity 3 | Comments |
|--------|--------------|-------------|------------|------------|------------|----------|
| 14     | CGS-M        | 1           | 1.67365    | 1.67365    |            |          |
| 6      | CGN-M        | 6A          | 1.64545    | 1.64547    |            |          |
| 31     | BIU-M        | 1           | 1.65625    | 1.65625    |            |          |
| 23     | CGS-M        | 10          | 1.63705    | 1.63705    |            |          |
| 15     | CGS-M        | 2           | 1.67362    | 1.67364    |            |          |
| 7      | CGN-M        | 7           | 1.64147    | 1.64148    |            |          |
| 32     | BIU-M        | 2           | 1.65491    | 1.65492    |            |          |
| 24     | CGS-M        | 11          | 1.62638    | 1.62638    |            |          |
| 16     | CGS-M        | 3           | 1.67366    | 1.67365    |            |          |
| 8      | CGN-M        | 1           | 1.63380    | 1.63386    |            |          |
| 73     | QMG-M        | 8           | 1.62840    | 1.62840    |            |          |
| 72     | QMG-M        | 7           | 1.63497    | 1.63496    |            |          |
| 71     | QMG-M        | 10          | 1.63635    | 1.63633    |            |          |
| 70     | QMG-M        | 5A          | 1.66388    | 1.66386    |            |          |
| 69     | QMG-M        | 4           | 1.67293    | 1.67293    |            |          |
| 68     | QMG-M        | 3           | 1.68705    | 1.68704    |            |          |
| 67     | QMG-M        | 2           | 1.71008    | 1.71006    |            |          |
| 66     | QMG-M        | 1           | 1.71127    | 1.71129    | 1.71131    |          |
| 74     | QMG-M        | 9           | 1.62174    | 1.62174    |            |          |
| 75     | QMG-M        | 10          | 1.62095    | 1.62093    |            |          |
|        | DWR          |             | 1.99771    | 1.99771    |            |          |
| 76     | QMG-M        | 11          | 1.62123    | 1.62121    |            |          |
| 77     | QMG-M        | 12          | 1.62113    | 1.62114    |            |          |
| 78     | VS-M         | 1           | 1.64375    | 1.64375    |            |          |
| 80     | VS-M         | 3           | 1.64675    | 1.64675    |            |          |
| 81     | VS-M         | 4           | 1.62262    | 1.62264    |            |          |

Notes: \_\_\_\_\_

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# AUTOSAL ANALYSIS LOGSHEET

Cruise ID: 2022-052 Cast/Station Name: \_\_\_\_\_ Analysis Date (dd | mmm | yyyy): 10 | Jan | 2023

Autosal Model: \_\_\_\_\_ Serial Number: 73274

Initial Standby Value: \_\_\_\_\_ Ratio After Standardization: \_\_\_\_\_

| Cell Standardization (Daily)                                                                                                                 | Standardization Values: | Standard Info.                     | Bath Temperature: <u>24</u> °C   |
|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------------------|----------------------------------|
| Conductivity must be $\pm 0.00001$<br>compared to Standard  | Before: _____           | K <sub>15</sub> VALUE: 0.999 _____ | Sample Temperature: <u>22</u> °C |
|                                                                                                                                              | After: _____            | Batch #: _____                     | Room Temperature: <u>22</u> °C   |
|                                                                                                                                              | Notes: _____            | Batch Date: _____                  | Analyst: <u>PH</u>               |

| Sample | Station Name | Depth/Nisk# | Salinity 1 | Salinity 2 | Salinity 3 | Comments                   |
|--------|--------------|-------------|------------|------------|------------|----------------------------|
| 82     | VS-M         | 5           | 1.61044    | 1.61047    |            |                            |
| 83     | VS-M         | 6           | 1.60890    | 1.60890    |            |                            |
| 84     | VS-M         | 7           | 1.60901    | 1.60905    |            |                            |
| 85     | VS-M         | 8           | 1.60911    | 1.60916    |            |                            |
| 86     | VS-M         | 9           | 1.60923    | 1.60923    |            |                            |
| 3      | CGN-M        | 3B          | 1.66218    | 1.66220    |            |                            |
| 6      | CGN-M        | 6B          | 1.64547    | 1.64547    |            |                            |
| 19     | CGS-M        | 6B          | 1.66879    | 1.66884    | 1.66900    |                            |
| 27     | CGS-M        | 14B         | 1.53167    | 1.53166    |            |                            |
| 37     | BIU-M        | 7B          | 1.63128    | 1.63129    |            |                            |
| 49     | QD-M         | 5B          | 1.58491    | 1.58494    |            |                            |
| 70     | QMG-M        | 5B          | 1.66381    | 1.66381    |            |                            |
| 10001  | AUG 25       | 14:03       | 1.58338    | 1.58337    |            |                            |
|        | PWR.         |             | 1.99769    | 1.99770    |            |                            |
| 33     | BIU-M        | 3           | 1.65305    | 1.65304    |            |                            |
| 34     | BIU-M        | 4           | 1.65041    | 1.65043    |            |                            |
| 35     | BIU-M        | 5           | 1.64621    | 1.64620    |            |                            |
| 37     | BIU-M        | 7A          | 1.63145    | 1.63149    |            |                            |
| 38     | BIU-M        | 8           | 1.62175    | 1.62178    |            |                            |
| 39     | BIU-M        | 9           | 1.58602    | 1.58602    |            |                            |
| 40     | BIU-M        | 10          | 1.48587    | 1.48587    |            |                            |
| 41     | BIU-M        | 11          | 1.40029    | 1.40031    |            |                            |
| 42     | BIU-M        | 12          | 1.38640    | 1.38641    |            |                            |
| 43     | BIU-M        | 13          | 1.38545    | 1.38547    |            |                            |
| 44     | BIU-M        | 14          | 1.38684    | 1.38683    |            |                            |
| 45     | QD-M         | 1           | 1.66563    | 1.66564    |            | Final Standby Value: _____ |

Notes: \_\_\_\_\_

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## AUTOSAL ANALYSIS LOGSHEET

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|                                                                                                                                              |  |                                    |  |                                                            |  |
|----------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------|--|------------------------------------------------------------|--|
| Cruise ID: <u>2022-52</u>                                                                                                                    |  | Cast/Station Name: _____           |  | Analysis Date (dd   mmm   yyyy):<br><u>10   Jan   2023</u> |  |
| Autosal Model: _____                                                                                                                         |  | Serial Number: <u>73274</u>        |  |                                                            |  |
| Initial Standby Value: _____                                                                                                                 |  | Ratio After Standardization: _____ |  |                                                            |  |
| <b>Cell Standardization (Daily)</b>                                                                                                          |  | <b>Standardization Values:</b>     |  | <b>Standard Info.</b>                                      |  |
| Conductivity must be $\pm 0.00001$<br>compared to Standard  |  | Before: _____                      |  | K <sub>15</sub> VALUE: <u>0.999</u>                        |  |
|                                                                                                                                              |  | After: _____                       |  | Batch #: _____                                             |  |
|                                                                                                                                              |  | Notes: _____                       |  | Batch Date: _____                                          |  |
|                                                                                                                                              |  |                                    |  | Bath Temperature: <u>24</u> °C                             |  |
|                                                                                                                                              |  |                                    |  | Sample Temperature: <u>22</u> °C                           |  |
|                                                                                                                                              |  |                                    |  | Room Temperature: <u>23</u> °C                             |  |
|                                                                                                                                              |  |                                    |  | Analyst: <u>PH</u>                                         |  |

| Sample | Station Name | Depth/Nisk# | Salinity 1 | Salinity 2 | Salinity 3 | Comments                                  |
|--------|--------------|-------------|------------|------------|------------|-------------------------------------------|
| 46     | QD-M         | 2           | 1.66540    | 1.66542    |            |                                           |
| 47     | QD-M         | 3           | 1.65439    | 1.65440    |            |                                           |
| 48     | QD-M         | 4           | 1.64644    | 1.64641    |            |                                           |
| 49     | QD-M         | 5           | 1.58456    | 1.58455    |            |                                           |
| 50     | QD-M         | 6           | 1.55310    | 1.55309    |            |                                           |
| 51     | QD-M         | 7           | 1.53038    | 1.53036    |            |                                           |
| 52     | QD-M         | 8           | 1.52561    | 1.52560    |            |                                           |
| 53     | QD-M         | 9           | 1.52517    | 1.52516    |            |                                           |
| 54     | QD-M         | 10          | 1.52493    | 1.52493    |            |                                           |
| 55     | QD-M         | 11          | 1.52509    | 1.52508    |            |                                           |
| 56     | QD-M         | 12          | 1.52514    | 1.52513    |            |                                           |
| 57     | DSS-M        | 1           | 1.68735    | 1.68736    |            |                                           |
| 58     | DSS-M        | 2           | 1.68731    | 1.68732    |            |                                           |
| 59     | DSS-M        | 3           | 1.64394    | 1.64391    |            |                                           |
| 60     | DSS-M        | 4           | 1.62877    | 1.62877    |            |                                           |
| 61     | DSS-M        | 5           | 1.61351    | 1.61352    |            |                                           |
| 62     | DSS-M        | 6           | 1.57880    | 1.57878    |            |                                           |
| 63     | DSS-M        | 7           | 1.57115    | 1.57117    |            |                                           |
| 64     | DSS-M        | 8           | 1.56890    | 1.56890    |            |                                           |
| 65     | DSS-M        | 9           | 1.56849    | 1.56850    |            |                                           |
| 100p5  | Sept 23      | 15:40       | 1.52796    | 1.52795    |            |                                           |
| 100p4  | Sept 16      | 13:53       | 1.11898    | 1.11898    |            | very full                                 |
| 100p3  | Sept 9       | 15:38       | 1.21764    | 1.21764    |            |                                           |
| 100p2  | Sept 3       | 8:13        | 1.42400    | 1.42399    |            |                                           |
|        | DWR          |             | 1.99766    | 1.99769    | 1.99767    | Final Standby Value:<br><u>24 + 59.80</u> |

Notes: \_\_\_\_\_

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