

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1860  
CALIBRATION DATE: 08-Dec-10

SBE4 CONDUCTIVITY CALIBRATION DATA  
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

## GHIJ COEFFICIENTS

g = -3.99855665e+000  
h = 5.16315236e-001  
i = -4.69128445e-004  
j = 5.12787325e-005  
CPcor = -9.5700e-008 (nominal)  
CTcor = 3.2500e-006 (nominal)

## ABCDM COEFFICIENTS

a = 2.40373544e-006  
b = 5.14778682e-001  
c = -3.99400242e+000  
d = -8.64385541e-005  
m = 4.9  
CPcor = -9.5700e-008 (nominal)

| BATH TEMP<br>(ITS-90) | BATH SAL<br>(PSU) | BATH COND<br>(Siemens/m) | INST FREQ<br>(kHz) | INST COND<br>(Siemens/m) | RESIDUAL<br>(Siemens/m) |
|-----------------------|-------------------|--------------------------|--------------------|--------------------------|-------------------------|
| 0.0000                | 0.0000            | 0.00000                  | 2.78532            | 0.00000                  | 0.00000                 |
| -1.0000               | 34.8505           | 2.80707                  | 7.88504            | 2.80711                  | 0.00003                 |
| 1.0000                | 34.8509           | 2.97864                  | 8.09261            | 2.97863                  | -0.00001                |
| 15.0000               | 34.8520           | 4.27553                  | 9.51440            | 4.27543                  | -0.00010                |
| 18.5000               | 34.8510           | 4.62247                  | 9.85957            | 4.62251                  | 0.00004                 |
| 29.0000               | 34.8497           | 5.70717                  | 10.86622           | 5.70729                  | 0.00012                 |
| 32.5000               | 34.8441           | 6.08029                  | 11.19080           | 6.08021                  | -0.00008                |

Conductivity =  $(g + hf^2 + if^3 + jf^4) / 10(1 + \delta t + \epsilon p)$  Siemens/meter

Conductivity =  $(af^m + bf^2 + c + dt) / [10(1 + \epsilon p)]$  Siemens/meter

t = temperature[°C]; p = pressure[decibars];  $\delta$  = CTcor;  $\epsilon$  = CPcor;

Residual = (instrument conductivity - bath conductivity) using g, h, i, j coefficients

Date, Slope Correction

