

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 3531  
CALIBRATION DATE: 01-Oct-15

SBE 37 CONDUCTIVITY CALIBRATION DATA  
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

## COEFFICIENTS:

g = -9.858807e-001  
h = 1.331133e-001  
i = -1.624766e-004  
j = 3.181388e-005

CPcor = -9.5700e-008  
CTcor = 3.2500e-006  
WBOTC = -4.6806e-006

| BATH TEMP<br>(ITS-90) | BATH SAL<br>(PSU) | BATH COND<br>(Siemens/m) | INST FREQ<br>(Hz) | INST COND<br>(Siemens/m) | RESIDUAL<br>(Siemens/m) |
|-----------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------------|
| 22.0000               | 0.0000            | 0.00000                  | 2723.71           | 0.00000                  | 0.00000                 |
| 1.0000                | 34.6499           | 2.96309                  | 5445.51           | 2.96311                  | 0.00002                 |
| 4.4999                | 34.6301           | 3.26887                  | 5651.63           | 3.26886                  | -0.00001                |
| 15.0000               | 34.5865           | 4.24639                  | 6264.43           | 4.24637                  | -0.00002                |
| 18.4999               | 34.5768           | 4.59000                  | 6465.77           | 4.59001                  | 0.00000                 |
| 24.0000               | 34.5658           | 5.14547                  | 6778.28           | 5.14548                  | 0.00001                 |
| 29.0000               | 34.5592           | 5.66493                  | 7057.66           | 5.66495                  | 0.00002                 |
| 32.5000               | 34.5551           | 6.03557                  | 7250.21           | 6.03556                  | -0.00002                |

$f = \text{INST FREQ} * \sqrt{1.0 + \text{WBOTC} * t} / 1000.0$

Conductivity =  $(g + h * f^2 + i * f^3 + j * f^4) / (1 + \delta * t + \epsilon * p)$  Siemens / meter

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

Residual = instrument conductivity - bath conductivity

