# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1030
CALIBRATION DATE: 21-Feb-14

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

GHIJ COEFFICIENTS

```
g = -4.06786440e+000
h =  5.73119345e-001
i =  7.10434166e-006
j =  3.33072387e-005
CPcor = -9.5700e-008 (nominal)
CTcor =  3.2500e-006 (nominal)
```

ABCDM COEFFICIENTS

```
a =  4.35134538e-005
b =  5.73035257e-001
c = -4.06729625e+000
d = -7.81646333e-005
m =  3.9
CPcor = -9.5700e-008 (nominal)
```

| BATH TEMP (ITS-90) | BATH SAL (PSU) | BATH COND (Siemens/m) | INST FREQ (kHz) | INST COND (Siemens/m) | RESIDUAL (Siemens/m) |
|---|---|---|---|---|---|
| 0.0000 | 0.0000 | 0.00000 | 2.66357 | 0.00000 | 0.00000 |
| -1.0000 | 34.8302 | 2.80559 | 7.47425 | 2.80561 | 0.00002 |
| 1.0000 | 34.8305 | 2.97706 | 7.67045 | 2.97705 | -0.00001 |
| 15.0000 | 34.8299 | 4.27310 | 9.01483 | 4.27310 | -0.00000 |
| 18.5000 | 34.8296 | 4.61994 | 9.34132 | 4.61993 | -0.00001 |
| 29.0000 | 34.8282 | 5.70405 | 10.29408 | 5.70409 | 0.00004 |
| 32.5000 | 34.8223 | 6.07692 | 10.60151 | 6.07689 | -0.00003 |

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

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

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

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