

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 3769  
CALIBRATION DATE: 09-Dec-11

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

## COEFFICIENTS:

g = -1.055299e+000  
h = 1.401019e-001  
i = -1.424114e-004  
j = 3.176143e-005

CPcor = -9.5700e-008  
CTcor = 3.2500e-006  
WBOTC = -9.1320e-006

BATH TEMP (ITS-90)	BATH SAL (PSU)	BATH COND (Siemens/m)	INST FREQ (Hz)	INST COND (Siemens/m)	RESIDUAL (Siemens/m)
22.0000	0.0000	0.00000	2746.28	0.00000	0.00000
1.0000	34.9523	2.98648	5368.26	2.98649	0.00001
4.4999	34.9319	3.29454	5568.38	3.29454	-0.00000
15.0000	34.8869	4.27936	6163.96	4.27935	-0.00001
18.5000	34.8768	4.62553	6359.81	4.62552	-0.00001
24.0000	34.8645	5.18500	6663.91	5.18502	0.00002
29.0000	34.8554	5.70800	6935.81	5.70802	0.00002
32.5000	34.8483	6.08094	7123.17	6.08092	-0.00002

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

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

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

Residual = instrument conductivity - bath conductivity

