

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1247
CALIBRATION DATE: 02-Dec-10

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

COEFFICIENTS:

g = -1.029139e+000
h = 1.550378e-001
i = -1.848118e-004
j = 4.187754e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = -2.6910e-005

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	2578.84	0.00000	0.00000
0.9999	34.6602	2.96388	5072.74	2.96389	0.00001
4.4999	34.6398	3.26970	5262.88	3.26970	0.00000
15.0000	34.5962	4.24746	5828.69	4.24745	-0.00001
18.5000	34.5863	4.59114	6014.71	4.59112	-0.00001
24.0000	34.5754	5.14674	6303.60	5.14675	0.00002
29.0000	34.5692	5.66638	6562.01	5.66641	0.00002
32.5000	34.5656	6.03720	6740.17	6.03718	-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]; δ = CTcor; ϵ = CPcor;

Residual = instrument conductivity - bath conductivity

