

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0194
CALIBRATION DATE: 12-Sep-12

SBE 45 CONDUCTIVITY CALIBRATION DATA
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

COEFFICIENTS:

g = -1.011474e+000
h = 1.391936e-001
i = -1.719242e-004
j = 3.255397e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = -1.1460e-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	2698.22	0.00000	0.00000
1.0000	34.7567	2.97136	5348.98	2.97136	-0.00000
4.5000	34.7367	3.27795	5550.45	3.27796	0.00000
15.0000	34.6941	4.25821	6149.75	4.25820	-0.00001
18.5000	34.6849	4.60282	6346.75	4.60282	0.00000
24.0000	34.6747	5.15989	6652.61	5.15988	-0.00000
29.0000	34.6689	5.68089	6926.16	5.68090	0.00001
32.5000	34.6652	6.05261	7114.72	6.05261	-0.00001

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

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

$$t = \text{temperature}[^{\circ}\text{C}]; p = \text{pressure}[\text{decibars}]; \delta = \text{CTcor}; \epsilon = \text{CPcor};$$

$$\text{Residual} = \text{instrument conductivity} - \text{bath conductivity}$$

