

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2024
CALIBRATION DATE: 05-Jan-11

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

COEFFICIENTS:

g = -9.948822e-001
h = 1.475391e-001
i = -1.946559e-004
j = 4.128880e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = 3.8161e-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	2598.65	0.00000	0.00000
1.0000	34.6607	2.96393	5178.25	2.96394	0.00001
4.4999	34.6408	3.26978	5373.69	3.26978	-0.00000
14.9999	34.5975	4.24759	5954.73	4.24758	-0.00001
18.4999	34.5883	4.59137	6145.64	4.59134	-0.00002
23.9999	34.5779	5.14706	6441.97	5.14708	0.00002
29.0000	34.5716	5.66673	6706.87	5.66676	0.00003
32.5000	34.5675	6.03749	6889.39	6.03747	-0.00003

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

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

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

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

