

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2022
CALIBRATION DATE: 19-Aug-11

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

COEFFICIENTS:

g = -9.871306e-001
h = 1.394684e-001
i = -3.079278e-004
j = 4.421371e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = 1.8990e-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	2664.70	0.00000	0.00000
1.0000	34.9919	2.98954	5347.05	2.98954	0.00000
4.4999	34.9715	3.29791	5549.64	3.29791	0.00001
15.0000	34.9279	4.28385	6151.74	4.28383	-0.00003
18.5000	34.9186	4.63047	6349.53	4.63049	0.00002
24.0000	34.9080	5.19075	6656.38	5.19076	0.00000
29.0000	34.9006	5.71457	6930.55	5.71457	-0.00000
32.5000	34.8942	6.08803	7119.33	6.08803	-0.00000

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

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

t = temperature[°C]; p = pressure[decibars]; δ = CTcor; ϵ = CPcor;

Residual = instrument conductivity - bath conductivity

