SEA-BIRD ELECTRONICS, INC.

13431 NE 20th Street, Bellevue, Washington, 98005-2010 USA
Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0361
CALIBRATION DATE: 22-Feb-11

SBE 45 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

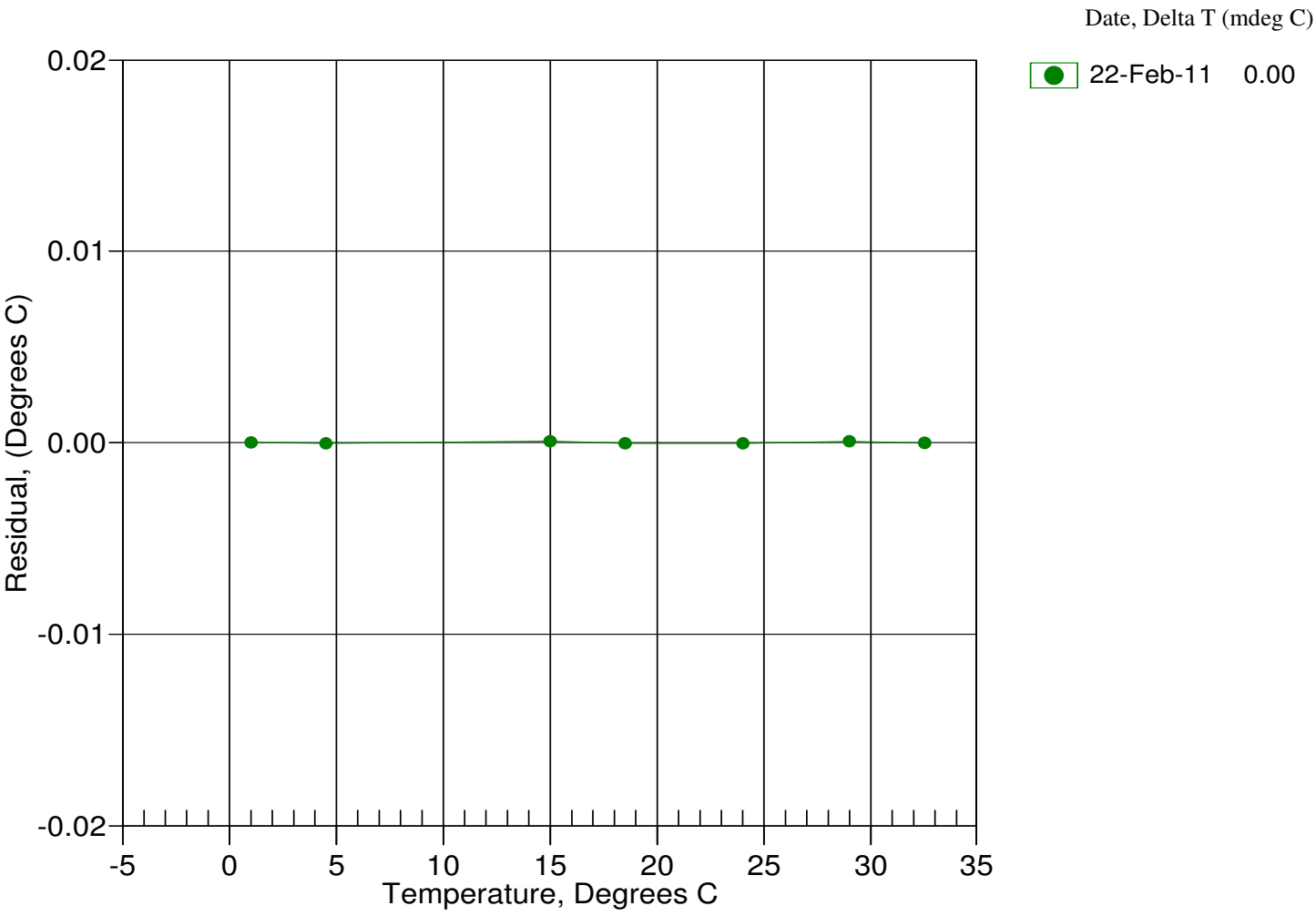
ITS-90 COEFFICIENTS

a0 = 6.579474e-005
a1 = 2.688566e-004
a2 = -2.071647e-006
a3 = 1.407640e-007

BATH TEMP (ITS-90)	INSTRUMENT OUTPUT	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
1.0000	689040.7	1.0000	0.0000
4.4999	587660.0	4.4999	-0.0000
15.0000	371833.1	15.0001	0.0001
18.5000	321232.3	18.5000	-0.0000
24.0000	256800.1	23.9999	-0.0001
29.0000	210801.0	29.0001	0.0001
32.5000	184214.4	32.5000	-0.0000

Temperature ITS-90 = $1/\{a0 + a1[ln(n)] + a2[ln^2(n)] + a3[ln^3(n)]\} - 273.15$ (°C)

Residual = instrument temperature - bath temperature



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

COEFFICIENTS:

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g = -9.829629e-001
h =  1.380889e-001
i = -1.766894e-004
j =  3.387499e-005

CPcor = -9.5700e-008
CTcor =  3.2500e-006
WBOTC =  1.5603e-007
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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	2670.24	0.00000	0.00000
1.0000	34.8506	2.97862	5355.69	2.97862	0.00001
4.4999	34.8302	3.28590	5558.75	3.28589	-0.00001
15.0000	34.7869	4.26839	6162.46	4.26839	0.00000
18.5000	34.7776	4.61379	6360.79	4.61378	-0.00001
24.0000	34.7673	5.17214	6668.63	5.17215	0.00001
29.0000	34.7613	5.69432	6943.83	5.69432	-0.00000
32.5000	34.7574	6.06688	7133.48	6.06688	-0.00000

f = INST FREQ * sqrt(1.0 + WBOTC * t) / 1000.0

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

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

Residual = instrument conductivity - bath conductivity