

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 4254
CALIBRATION DATE: 02-Jul-10

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

COEFFICIENTS:

g = -1.021551e+000

CPcor = -9.5700e-008

h = 1.515252e-001

CTcor = 3.2500e-006

i = -7.791001e-005

WBOTC = 8.9558e-006

j = 3.179578e-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	2596.14	0.00000	0.00000
1.0000	34.7050	2.96736	5123.42	2.96736	0.00000
4.5000	34.6853	3.27358	5315.54	3.27360	0.00002
15.0000	34.6426	4.25255	5886.94	4.25251	-0.00004
18.5000	34.6334	4.59672	6074.80	4.59671	-0.00001
24.0000	34.6231	5.15305	6366.45	5.15309	0.00003
29.0000	34.6171	5.67335	6627.25	5.67338	0.00003
32.5000	34.6129	6.04452	6806.98	6.04449	-0.00003

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

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

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

Residual = instrument conductivity - bath conductivity

