

# 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: 0063  
CALIBRATION DATE: 24-Feb-11

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

**COEFFICIENTS:**

g = -1.028660e+000	CPcor = -9.5700e-008
h = 1.566454e-001	CTcor = 3.2500e-006
i = -2.546217e-004	WBOTC = 1.3323e-005
j = 4.639597e-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	2565.05	0.00000	0.00000
1.0000	34.7103	2.96777	5052.61	2.96777	-0.00000
4.4999	34.6899	3.27396	5241.80	3.27397	0.00001
15.0000	34.6463	4.25296	5804.59	4.25295	-0.00001
18.5000	34.6370	4.59714	5989.59	4.59713	-0.00001
24.0000	34.6269	5.15356	6276.82	5.15357	0.00001
29.0000	34.6210	5.67392	6533.66	5.67393	0.00001
32.5000	34.6171	6.04517	6710.67	6.04516	-0.00001

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

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

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

Residual = instrument conductivity - bath conductivity

