

# Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0041  
CALIBRATION DATE: 06-Feb-14

SBE 49 CONDUCTIVITY CALIBRATION DATA  
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

## COEFFICIENTS:

g = -1.008173e+000

CPcor = -9.5700e-008

h = 1.381128e-001

CTcor = 3.2500e-006

i = -1.454742e-004

j = 3.181864e-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	2703.36	0.0000	0.00000
1.0000	34.6702	2.96466	5360.72	2.9647	0.00001
4.5000	34.6506	3.27063	5562.51	3.2706	-0.00001
15.0000	34.6087	4.24883	6162.69	4.2488	-0.00001
18.5000	34.5998	4.59274	6359.97	4.5927	-0.00000
24.0000	34.5896	5.14862	6666.19	5.1486	0.00002
29.0000	34.5834	5.66845	6939.98	5.6684	-0.00000
32.5001	34.5791	6.03930	7128.68	6.0393	-0.00001

f = INST FREQ / 1000.0

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

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

Residual = instrument conductivity - bath conductivity

