

# 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: 2355  
CALIBRATION DATE: 19-Aug-11

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

## COEFFICIENTS:

g = -1.034376e+000  
h = 1.538281e-001  
i = -2.555324e-004  
j = 4.758559e-005

CPcor = -9.5700e-008  
CTcor = 3.2500e-006  
WBOTC = 7.7050e-006

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	2595.79	0.00000	0.00000
1.0000	34.9919	2.98954	5115.56	2.98955	0.00001
4.4999	34.9715	3.29791	5307.11	3.29791	-0.00000
15.0000	34.9279	4.28385	5876.90	4.28383	-0.00002
18.5000	34.9186	4.63047	6064.19	4.63047	-0.00000
24.0000	34.9080	5.19075	6354.93	5.19078	0.00002
29.0000	34.9006	5.71457	6614.80	5.71459	0.00002
32.5000	34.8942	6.08803	6793.77	6.08801	-0.00002

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

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

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

Residual = instrument conductivity - bath conductivity

