

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: 0122
CALIBRATION DATE: 20-Oct-15

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

COEFFICIENTS:

g = -1.049890e+000
h = 1.315211e-001
i = -1.688745e-004
j = 3.004267e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = -3.5355e-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	2828.03	0.00000	0.00000
1.0000	34.6882	2.96606	5526.17	2.96607	0.00001
4.5000	34.6678	3.27209	5732.15	3.27208	-0.00001
15.0000	34.6230	4.25040	6345.18	4.25039	-0.00001
18.5000	34.6114	4.59411	6546.67	4.59411	0.00000
23.9999	34.5971	5.14960	6859.50	5.14962	0.00002
29.0000	34.5871	5.66899	7139.26	5.66898	-0.00001
32.5000	34.5768	6.03893	7331.80	6.03887	-0.00006

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

$$\text{Conductivity} = (g + h * f^2 + i * f^3 + j * f^4) / (1 + \delta * t + \epsilon * p) \text{ Siemens / meter}$$

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

$$\text{Residual} = \text{instrument conductivity} - \text{bath conductivity}$$

