



Sea-Bird Scientific
13431 NE 20th Street
Bellevue, WA 98005
USA

+1 425-643-9866
seabird@seabird.com
www.seabird.com

SENSOR SERIAL NUMBER: 0340
CALIBRATION DATE: 06-Oct-17

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

COEFFICIENTS:

g = -1.003167e+000
h = 1.699766e-001
i = -4.248488e-004
j = 6.290484e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = 1.3694e-006

| BATH TEMP (° C) | BATH SAL (PSU) | BATH COND (S/m) | INSTRUMENT OUTPUT (Hz) | INSTRUMENT COND (S/m) | RESIDUAL (S/m) |
|--------------------|-------------------|--------------------|---------------------------|--------------------------|-------------------|
| 22.0000 | 0.0000 | 0.00000 | 2434.07 | 0.00000 | 0.00000 |
| 1.0000 | 34.8770 | 2.98066 | 4849.53 | 2.98066 | 0.00000 |
| 4.5000 | 34.8573 | 3.28821 | 5032.71 | 3.28821 | 0.00000 |
| 14.9999 | 34.8151 | 4.27147 | 5577.42 | 4.27146 | -0.00001 |
| 18.5000 | 34.8059 | 4.61714 | 5756.42 | 4.61713 | -0.00001 |
| 23.9999 | 34.7975 | 5.17613 | 6034.24 | 5.17588 | -0.00025 |
| 29.0000 | 34.7888 | 5.69832 | 6282.60 | 5.69836 | 0.00004 |
| 32.4999 | 34.7841 | 6.07100 | 6453.69 | 6.07098 | -0.00002 |

$f = \text{Instrument Output(Hz)} * \sqrt{1.0 + \text{WBOTC} * t} / 1000.0$

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

Conductivity (S/m) = $(g + h * f^2 + i * f^3 + j * f^4) / (1 + \delta * t + \epsilon * p)$

Residual (Siemens/meter) = instrument conductivity - bath conductivity

