



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

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

SENSOR SERIAL NUMBER: 0454
CALIBRATION DATE: 07-Feb-25

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

COEFFICIENTS:

g = -1.122154e+000
h = 1.525848e-001
i = -3.999375e-003
j = 2.607728e-004

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = 2.4343e-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	2796.93	0.00000	0.00000
1.0000	34.5655	2.95656	5425.35	2.95635	-0.00021
4.5000	34.5458	3.26171	5629.55	3.26192	0.00022
15.0000	34.5030	4.23723	6236.81	4.23736	0.00014
18.5000	34.4931	4.58010	6436.35	4.58004	-0.00006
24.0000	34.4807	5.13419	6746.00	5.13398	-0.00021
29.0000	34.4728	5.65235	7022.89	5.65248	0.00012
32.5000	34.4637	6.02142	7213.41	6.02218	0.00076

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

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

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

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

