



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: 18-Sep-19

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

COEFFICIENTS:

g = -1.009495e+000 CPcor = -9.5700e-008
 h = 1.351398e-001 CTcor = 3.2500e-006
 i = -3.170413e-004 WBOTC = 2.4343e-006
 j = 4.100760e-005

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	2738.74	0.00000	0.00000
0.9999	34.8828	2.98110	5444.39	2.98110	0.00001
4.5000	34.8630	3.28870	5649.72	3.28868	-0.00001
15.0000	34.8208	4.27211	6260.37	4.27212	0.00001
18.5000	34.8117	4.61782	6461.02	4.61782	-0.00000
23.9999	34.8015	5.17666	6772.48	5.17665	-0.00001
29.0000	34.7958	5.69934	7050.99	5.69934	0.00000
32.5000	34.7923	6.07228	7242.95	6.07231	0.00003

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

t = temperature (°C); p = pressure (decibars); δ = CTcor; ϵ = 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

