

SEA-BIRD
SCIENTIFIC

Sea-Bird Scientific
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SENSOR SERIAL NUMBER: 21146
CALIBRATION DATE: 25-Aug-19

SBE 37 V2 CONDUCTIVITY CALIBRATION DATA
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

COEFFICIENTS:

g = -9.982170e-001
h = 1.467394e-001
i = -2.602941e-004
j = 4.069142e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = 1.2762e-007

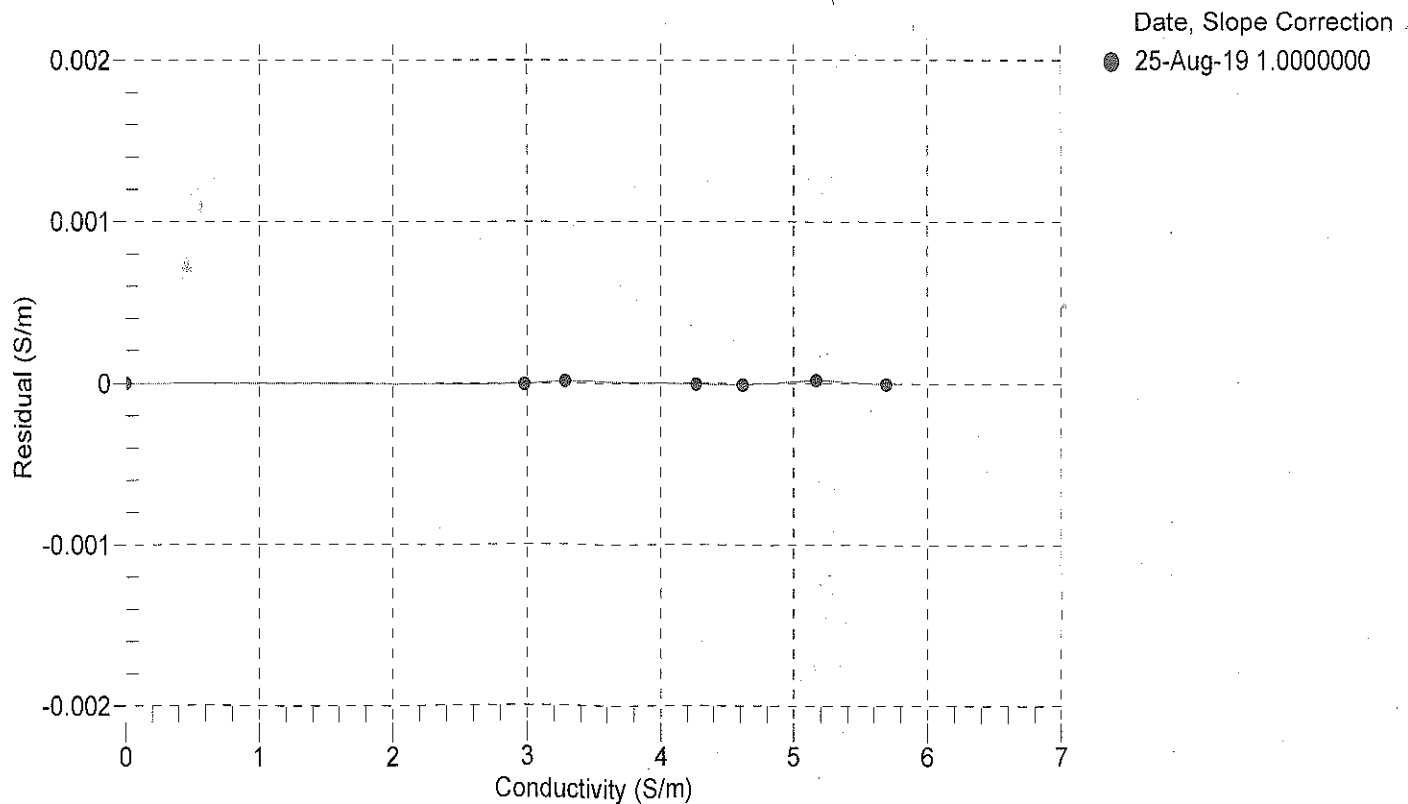
BATH TEMP (° C)	BATH SAL (PSU)	BATH COND (S/m)	INSTRUMENT OUTPUT (Hz)	INSTRUMENT COND (S/m)	RESIDUAL (S/m)
22.0000	0.0000	0.00000	2611.77	0.00000	0.00000
1.0000	34.8377	2.97762	5209.71	2.97761	-0.00001
4.5000	34.8163	3.28472	5406.59	3.28474	0.00001
15.0000	34.7744	4.26702	5992.24	4.26701	-0.00001
18.5000	34.7664	4.61246	6184.77	4.61245	-0.00001
23.9999	34.7577	5.17086	6483.61	5.17088	0.00002
29.0000	34.7534	5.69317	6750.83	5.69317	-0.00001
32.5000	34.7514	6.06595	6934.86	6.06550	-0.00045

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

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





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SBE 37 V2 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

a0 = -1.902061e-004
a1 = 3.149939e-004
a2 = -4.666984e-006
a3 = 2.084951e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
1.0000	565286.2	1.0000	0.0000
4.5000	485093.1	4.5000	-0.0000
15.0000	312516.8	15.0000	0.0000
18.5000	271573.7	18.5000	-0.0000
23.9999	219080.1	23.9999	0.0000
29.0000	181302.5	29.0000	-0.0000
32.5000	159326.1	32.5000	0.0000

n = Instrument Output (counts)

Temperature ITS-90 (°C) = $1 / \{a_0 + a_1[\ln(n)] + a_2[\ln^2(n)] + a_3[\ln^3(n)]\} - 273.15$

Residual (°C) = instrument temperature - bath temperature

