



Sea-Bird Scientific
13431 NE 20th Street
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USA

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www.seabird.com

SENSOR SERIAL NUMBER: 0343
CALIBRATION DATE: 29-Jul-18

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

COEFFICIENTS:

g = -1.00162933e+001
h = 1.12417696e+000
i = -2.98768826e-003
j = 2.86775342e-004

CPcor = -9.5700e-008 (nominal)
CTcor = 3.2500e-006 (nominal)

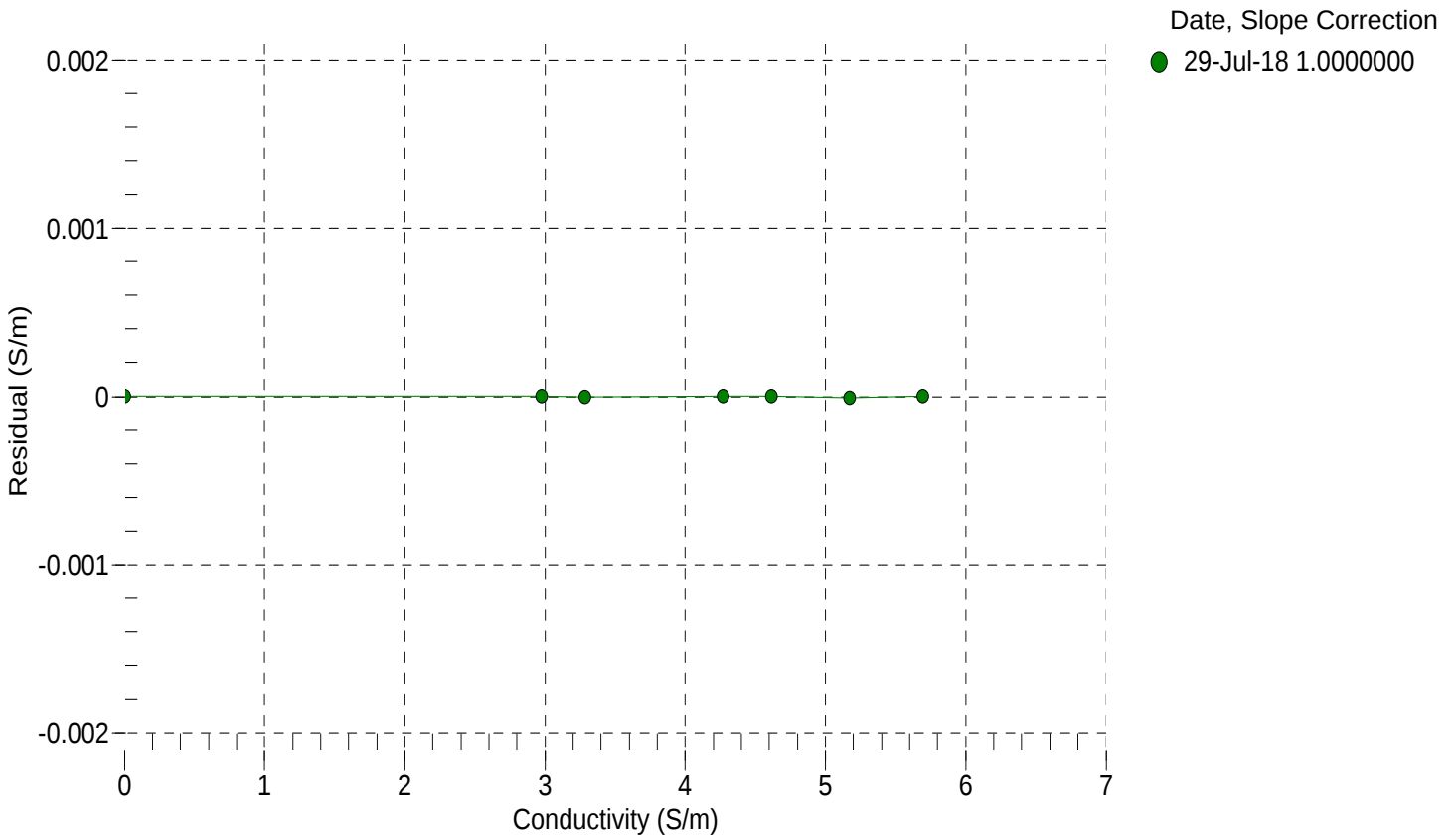
BATH TEMP (° C)	BATH SAL (PSU)	BATH COND (S/m)	INSTRUMENT OUTPUT (kHz)	INSTRUMENT COND (S/m)	RESIDUAL (S/m)
22.0000	0.0000	0.00000	2.99344	0.00000	0.00000
1.0000	34.8370	2.97757	5.96976	2.97757	0.00000
4.5000	34.8175	3.28483	6.19567	3.28482	-0.00000
15.0000	34.7760	4.26719	6.86757	4.26719	0.00000
18.5000	34.7675	4.61259	7.08843	4.61260	0.00000
24.0000	34.7584	5.17096	7.43128	5.17096	-0.00001
29.0000	34.7535	5.69319	7.73787	5.69319	0.00000
32.5000	34.7508	6.06586	7.94921	6.06582	-0.00003

f = Instrument Output (kHz)

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

Conductivity (S/m) = $(g + h * f^2 + i * f^3 + j * f^4) / 10 (1 + \delta * t + \epsilon * p)$

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





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Glider APL TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

g = 4.42329373e-003
h = 6.45619183e-004
i = 2.67989770e-005
j = 3.35064939e-006
f0 = 1000.0

BATH TEMP (° C)	INSTRUMENT OUTPUT (Hz)	INST TEMP (° C)	RESIDUAL (° C)
1.0000	3513.682	1.0000	-0.00004
4.5000	3796.954	4.5001	0.00007
15.0000	4744.324	15.0000	-0.00001
18.5000	5093.917	18.4999	-0.00008
24.0000	5678.783	24.0000	0.00003
29.0000	6249.028	29.0001	0.00009
32.5000	6670.500	32.4999	-0.00006

f = Instrument Output (Hz)

Temperature ITS-90 (°C) = $1 / \{g + h[\ln(f_0 / f)] + i[\ln^2(f_0 / f)] + j[\ln^3(f_0 / f)]\} - 273.15$

Residual (°C) = instrument temperature - bath temperature

