



Sea-Bird Scientific
13431 NE 20th Street
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USA

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seabird@seabird.com
www.seabird.com

SENSOR SERIAL NUMBER: 0407
CALIBRATION DATE: 31-Dec-20

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

COEFFICIENTS:

g = -1.01210902e+001
h = 1.15205171e+000
i = -2.33145231e-003
j = 2.44281048e-004

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

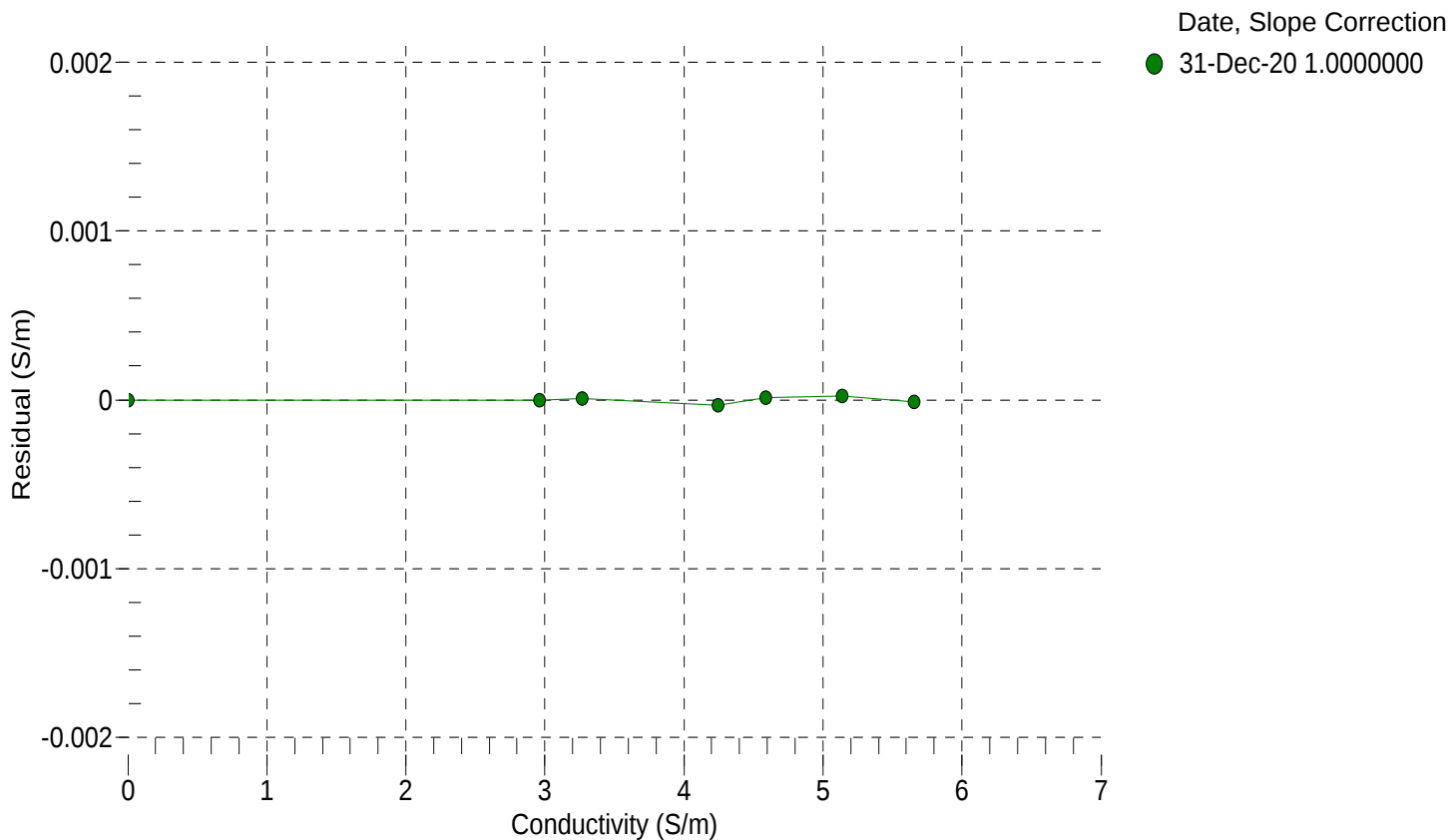
BATH TEMP (° C)	BATH SAL (PSU)	BATH COND (S/m)	INSTRUMENT OUTPUT (kHz)	INSTRUMENT COND (S/m)	RESIDUAL (S/m)
22.0000	0.0000	0.00000	2.97015	0.00000	0.00000
1.0000	34.6410	2.96240	5.88708	2.96240	-0.00000
4.5000	34.6163	3.26771	6.10869	3.26772	0.00001
15.0000	34.5617	4.24367	6.76794	4.24364	-0.00003
18.5000	34.5436	4.58608	6.98431	4.58609	0.00001
24.0000	34.5256	5.14014	7.32060	5.14016	0.00002
29.0000	34.5060	5.65719	7.62074	5.65717	-0.00001
32.5000	34.4911	6.02566	7.82754	6.02580	0.00014

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 = 4.43476793e-003
h = 6.53130797e-004
i = 2.78051866e-005
j = 3.50452620e-006
f0 = 1000.0

BATH TEMP (° C)	INSTRUMENT OUTPUT (Hz)	INST TEMP (° C)	RESIDUAL (° C)
1.0000	3533.177	1.0000	-0.00002
4.5000	3815.281	4.5000	0.00003
15.0000	4757.466	15.0000	0.00001
18.5000	5104.696	18.4999	-0.00006
24.0000	5685.133	24.0000	0.00003
29.0000	6250.531	29.0000	0.00005
32.5000	6668.128	32.5000	-0.00003

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

