



SEA-BIRD  
SCIENTIFIC

Sea-Bird Scientific  
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SENSOR SERIAL NUMBER: 21148  
CALIBRATION DATE: 25-Aug-19

SBE 37 V2 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

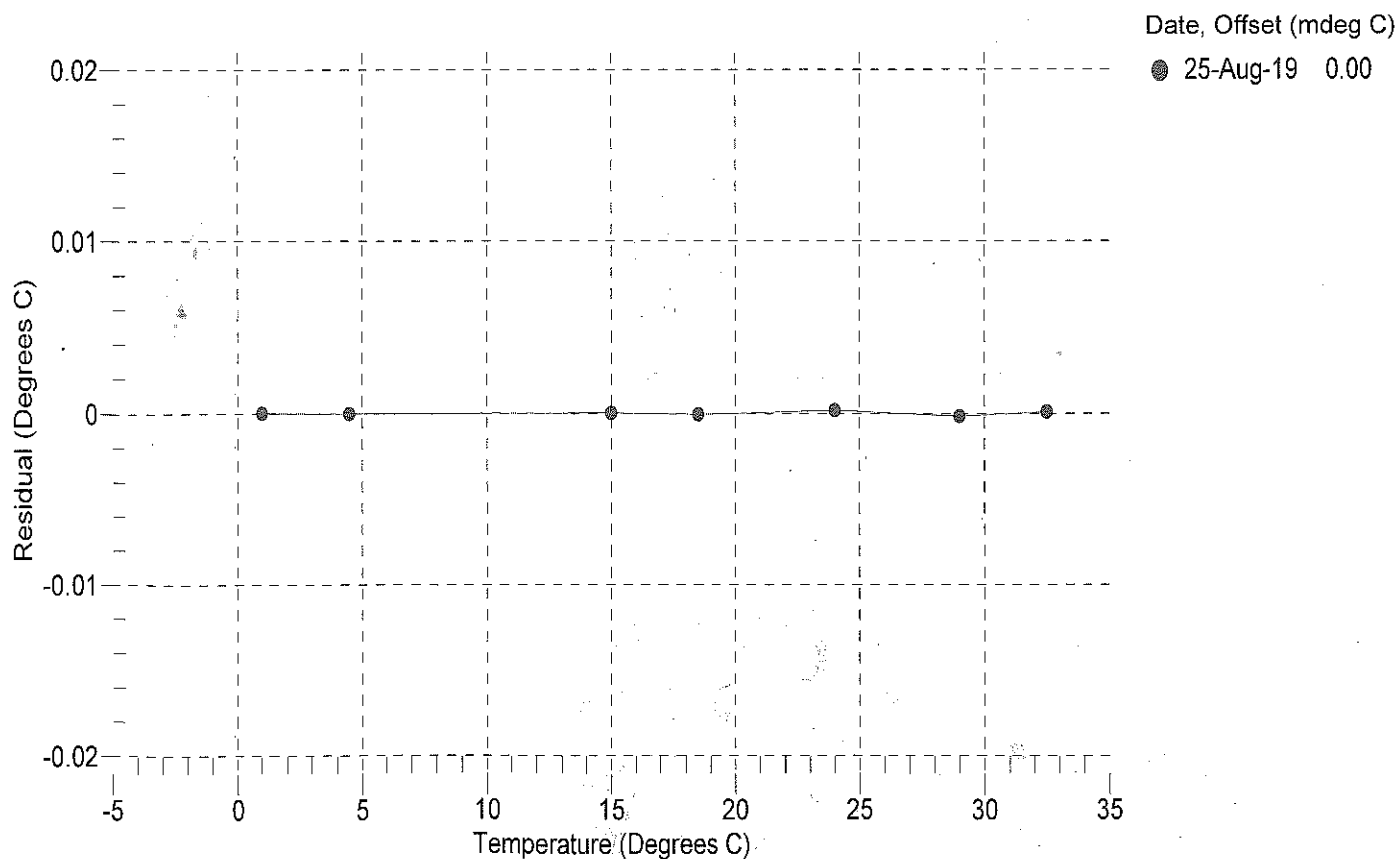
a0 = -1.351027e-004  
a1 = 3.123478e-004  
a2 = -4.789469e-006  
a3 = 2.089983e-007

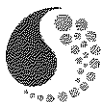
BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
1.0000	565788.9	1.0000	0.0000
4.5000	484112.1	4.5000	-0.0000
15.0000	309279.3	15.0000	0.0000
18.5000	268040.3	18.4999	-0.0001
23.9999	215341.8	24.0001	0.0002
29.0000	177567.3	28.9998	-0.0002
32.5000	155657.7	32.5001	0.0001

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





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

COEFFICIENTS:

g = -1.004559e+000  
h = 1.440426e-001  
i = -2.310100e-004  
j = 3.718629e-005

CPcor = -9.5700e-008  
CTcor = 3.2500e-006  
WBOTC = 4.0969e-007

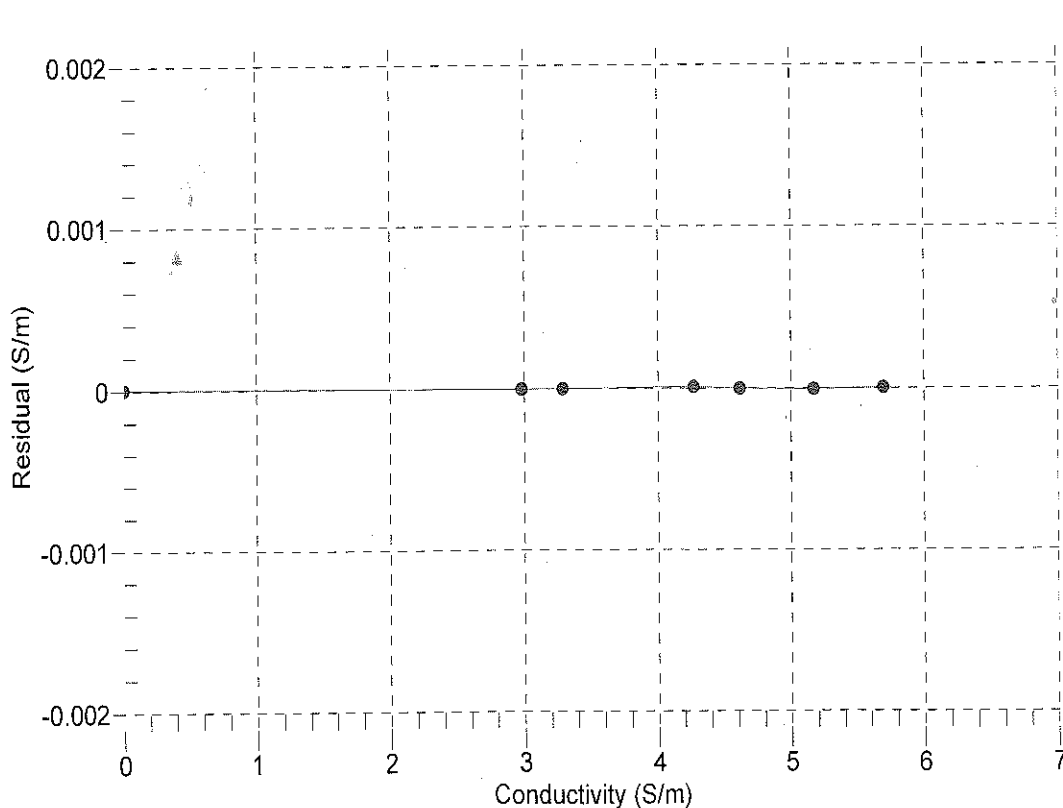
BATH TEMP (°C)	BATH SAL (PSU)	BATH COND (S/m)	INSTRUMENT OUTPUT (Hz)	INSTRUMENT COND (S/m)	RESIDUAL (S/m)
22.0000	0.0000	0.00000	2644.05	0.00000	0.00000
1.0000	34.8377	2.97762	5261.34	2.97762	-0.00000
4.5000	34.8163	3.28472	5459.83	3.28472	-0.00000
15.0000	34.7744	4.26702	6050.44	4.26702	0.00001
18.5000	34.7664	4.61246	6244.61	4.61246	-0.00000
23.9999	34.7577	5.17086	6546.02	5.17085	-0.00001
29.0000	34.7534	5.69317	6815.58	5.69318	0.00000
32.5000	34.7514	6.06595	7001.31	6.06570	-0.00026

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

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

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



Date, Slope Correction  
● 25-Aug-19 1.0000000