

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0460
CALIBRATION DATE: 22-Jun-12

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.4782

Voffset = -0.4718

Tau20 = 1.33

A = -2.2657e-003

B = 1.1755e-004

C = -1.8516e-006

E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4 H1 = -3.30000e-2

D2 = -4.64803e-2 H2 = 5.00000e+3

H3 = 1.45000e+3

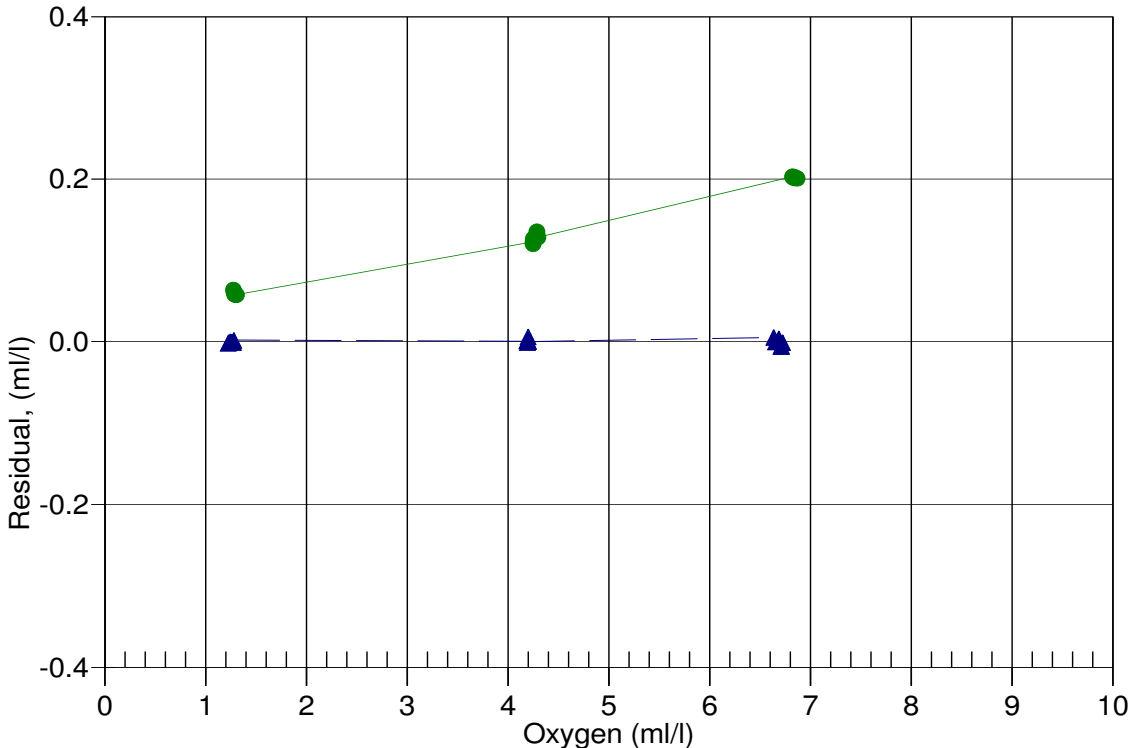
BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(VOLTS)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.23	2.00	0.17	0.738	1.22	-0.00
1.23	6.00	0.15	0.771	1.23	-0.00
1.24	12.00	0.13	0.822	1.24	-0.00
1.26	20.00	0.11	0.891	1.26	-0.00
1.28	26.00	0.10	0.948	1.28	-0.00
1.28	30.00	0.07	0.984	1.28	0.00
4.18	20.00	0.11	1.866	4.18	0.00
4.19	6.00	0.15	1.490	4.19	-0.00
4.20	12.00	0.13	1.653	4.20	0.00
4.20	26.00	0.10	2.040	4.21	0.01
4.20	30.00	0.06	2.154	4.20	0.00
4.20	2.00	0.17	1.385	4.20	-0.00
6.63	6.00	0.15	2.083	6.64	0.01
6.65	30.00	0.05	3.135	6.65	-0.00
6.69	20.00	0.11	2.701	6.69	0.00
6.70	26.00	0.09	2.969	6.70	-0.01
6.71	12.00	0.13	2.359	6.71	-0.01
6.72	2.00	0.17	1.932	6.72	-0.00

$$\text{Oxygen (ml/l)} = \text{Soc} * (\text{V} + \text{Voffset}) * (1.0 + \text{A} * \text{T} + \text{B} * \text{T}^2 + \text{C} * \text{T}^3) * \text{OxSol}(\text{T},\text{S}) * \exp(\text{E} * \text{P} / \text{K})$$

V = voltage output from SBE43, T = temperature [deg C], S = salinity [PSU], K = temperature [Kelvin]

OxSol(T,S) = oxygen saturation [ml/l], P = pressure [dbar], Residual = instrument oxygen - bath oxygen

Date, Delta Ox (ml/l)



● 04-Dec-10 0.9709
▲ 22-Jun-12 1.0000