

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0463  
CALIBRATION DATE: 15-Feb-14

SBE 43 OXYGEN CALIBRATION DATA

**COEFFICIENTS**

Soc = 0.5048

Voffset = -0.4847

Tau20 = 1.29

A = -2.4407e-003

B = 1.5076e-004

C = -2.8370e-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)
1.28	6.00	0.00	0.778	1.28	-0.00
1.29	12.00	0.00	0.827	1.29	-0.00
1.29	2.00	0.00	0.749	1.29	-0.00
1.30	26.00	0.00	0.944	1.30	0.00
1.30	20.00	0.00	0.894	1.30	-0.00
1.30	30.00	0.00	0.982	1.31	0.01
4.01	2.00	0.00	1.310	4.01	-0.00
4.02	6.00	0.00	1.409	4.02	0.00
4.05	20.00	0.00	1.760	4.05	-0.00
4.06	12.00	0.00	1.566	4.06	0.00
4.07	30.00	0.00	2.030	4.07	0.00
4.07	26.00	0.00	1.926	4.08	0.01
6.78	2.00	0.00	1.879	6.78	0.00
6.79	6.00	0.00	2.045	6.79	0.00
6.82	30.00	0.00	3.074	6.82	-0.00
6.82	20.00	0.00	2.634	6.82	0.01
6.83	12.00	0.00	2.299	6.82	-0.01
6.86	26.00	0.00	2.904	6.85	-0.01

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

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)

