

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1960  
CALIBRATION DATE: 03-Jul-12

SBE 43 OXYGEN CALIBRATION DATA

**COEFFICIENTS**

Soc = 0.4813

Voffset = -0.4987

Tau20 = 1.94

A = -3.6191e-003

B = 2.1442e-004

C = -3.6212e-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	0.16	0.763	1.22	-0.00
1.23	6.00	0.14	0.797	1.23	-0.00
1.24	12.00	0.13	0.848	1.24	-0.00
1.25	26.00	0.09	0.964	1.25	-0.00
1.26	20.00	0.11	0.915	1.25	-0.00
1.26	30.00	0.08	1.002	1.26	0.00
4.17	2.00	0.16	1.402	4.18	0.00
4.18	26.00	0.09	2.048	4.18	0.00
4.18	30.00	0.08	2.164	4.18	0.00
4.18	12.00	0.12	1.674	4.18	0.00
4.18	6.00	0.14	1.513	4.19	0.01
4.19	20.00	0.11	1.890	4.19	0.00
6.72	12.00	0.12	2.386	6.71	-0.00
6.72	20.00	0.11	2.731	6.73	0.00
6.74	6.00	0.14	2.132	6.74	-0.00
6.78	30.00	0.08	3.199	6.78	0.00
6.78	2.00	0.16	1.965	6.78	-0.00
6.82	26.00	0.08	3.025	6.81	-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)

