

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0910

CALIBRATION DATE: 25-Feb-14

SBE 43 OXYGEN CALIBRATION DATA

## COEFFICIENTS

Soc = 0.5041

Voffset = -0.5063

Tau20 = 1.07

A = -2.9177e-003

B = 1.1154e-004

C = -1.8525e-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	0.801	1.28	-0.00
1.28	2.00	0.00	0.770	1.28	-0.00
1.29	12.00	0.00	0.852	1.29	-0.00
1.30	20.00	0.00	0.923	1.30	-0.00
1.31	30.00	0.00	1.022	1.32	0.01
1.32	26.00	0.00	0.985	1.32	0.00
4.03	6.00	0.00	1.439	4.04	0.00
4.05	12.00	0.00	1.596	4.05	0.00
4.06	2.00	0.00	1.343	4.06	-0.00
4.08	20.00	0.00	1.815	4.08	-0.00
4.10	26.00	0.00	1.988	4.10	0.00
4.13	30.00	0.00	2.119	4.14	0.01
6.80	6.00	0.00	2.079	6.81	0.01
6.83	12.00	0.00	2.342	6.82	-0.00
6.83	20.00	0.00	2.698	6.83	-0.00
6.84	26.00	0.00	2.981	6.85	0.01
6.85	30.00	0.00	3.171	6.84	-0.01
6.86	2.00	0.00	1.921	6.86	0.00

Oxygen (ml/l) = Soc \* (V + Voffset) \* (1.0 + A \* T + B \* T<sup>2</sup> + C \* T<sup>3</sup>) \* OxSol(T,S) \* exp(E \* P / 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)

