

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2040
CALIBRATION DATE: 10-May-13

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.4933

Voffset = -0.4962

Tau20 = 1.27

A = -3.8579e-003

B = 2.2859e-004

C = -3.7229e-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)
1.35	6.00	0.30	0.815	1.35	-0.00
1.36	2.00	0.33	0.784	1.36	0.00
1.37	12.00	0.27	0.873	1.37	-0.00
1.38	20.00	0.24	0.945	1.39	0.00
1.39	26.00	0.24	0.998	1.39	0.00
1.39	30.00	0.23	1.035	1.39	0.00
4.29	2.00	0.33	1.403	4.29	-0.00
4.34	6.00	0.30	1.524	4.34	-0.00
4.34	12.00	0.27	1.688	4.34	-0.00
4.35	20.00	0.24	1.907	4.35	0.00
4.38	26.00	0.24	2.079	4.38	0.00
4.39	30.00	0.23	2.198	4.39	-0.00
7.23	2.00	0.33	2.025	7.23	0.00
7.25	6.00	0.30	2.213	7.25	0.00
7.28	20.00	0.24	2.857	7.28	0.00
7.31	30.00	0.23	3.333	7.32	0.00
7.31	26.00	0.24	3.139	7.31	-0.01
7.32	12.00	0.27	2.505	7.31	-0.00

Oxygen (ml/l) = Soc * (V + Voffset) * (1.0 + A * T + B * T² + C * T³) * 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)

