

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1646  
CALIBRATION DATE: 11-Mar-14

## SBE 43 OXYGEN CALIBRATION DATA

### COEFFICIENTS

Soc = 0.5641

Voffset = -0.5400

Tau20 = 1.17

A = -3.5461e-003

B = 1.1729e-004

C = -1.8400e-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)
1.26	2.00	0.00	0.771	1.26	-0.00
1.28	12.00	0.00	0.849	1.28	-0.00
1.28	6.00	0.00	0.805	1.28	-0.01
1.29	20.00	0.00	0.913	1.29	0.00
1.30	26.00	0.00	0.967	1.30	0.00
1.31	30.00	0.00	1.007	1.32	0.01
4.01	6.00	0.00	1.371	4.01	-0.00
4.02	12.00	0.00	1.514	4.03	0.00
4.04	20.00	0.00	1.710	4.04	-0.00
4.06	2.00	0.00	1.288	4.05	-0.00
4.07	26.00	0.00	1.871	4.07	0.00
4.12	30.00	0.00	1.998	4.13	0.01
6.80	2.00	0.00	1.794	6.80	0.00
6.81	20.00	0.00	2.512	6.80	-0.00
6.81	12.00	0.00	2.189	6.81	0.00
6.82	26.00	0.00	2.771	6.82	-0.00
6.84	6.00	0.00	1.957	6.84	-0.00
6.85	30.00	0.00	2.956	6.84	-0.01

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)

