

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0387  
CALIBRATION DATE: 26-Apr-14

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:  
Soc = 0.4784  
Voffset = -0.4889  
Tau20 = 1.11

A = -3.6364e-003  
B = 2.1242e-004  
C = -3.7638e-006  
E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS  
D1 = 1.92634e-4 H1 = -3.300000e-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)
1.25	2.00	0.00	0.760	1.25	-0.01
1.26	6.00	0.00	0.795	1.26	-0.00
1.28	12.00	0.00	0.850	1.28	-0.00
1.28	20.00	0.00	0.919	1.29	0.01
1.29	26.00	0.00	0.973	1.29	0.01
1.29	30.00	0.00	1.014	1.30	0.01
3.95	2.00	0.00	1.347	3.95	-0.00
3.98	30.00	0.00	2.092	3.98	-0.00
3.99	26.00	0.00	1.987	4.00	0.00
4.00	20.00	0.00	1.827	4.00	-0.00
4.01	6.00	0.00	1.464	4.00	-0.00
4.02	12.00	0.00	1.625	4.02	-0.00
6.65	2.00	0.00	1.935	6.65	0.00
6.67	12.00	0.00	2.376	6.68	0.00
6.70	26.00	0.00	2.997	6.70	0.00
6.71	30.00	0.00	3.194	6.71	-0.00
6.73	6.00	0.00	2.128	6.73	-0.00
6.75	20.00	0.00	2.747	6.75	-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 [deg K]  
OxSol(T,S) = oxygen saturation [ml/l], P = pressure [dbar]  
Residual = instrument oxygen - bath oxygen

