

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0387
CALIBRATION DATE: 13-Feb-08p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.3913

Voffset = -0.4871

Tau20 = 1.78

A = -1.3263e-003

B = 1.7154e-004

C = -3.6210e-006

E nominal = 0.036

BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(VOLTS)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.24	2.00	0.00	0.818	1.25	0.00
1.25	6.00	0.00	0.856	1.25	0.00
1.25	12.00	0.01	0.912	1.26	0.00
1.27	20.00	0.01	0.990	1.27	0.00
1.27	26.00	0.01	1.049	1.27	0.00
1.28	30.00	0.01	1.096	1.28	0.00
4.21	20.00	0.01	2.153	4.20	-0.01
4.21	2.00	0.00	1.599	4.20	-0.01
4.22	12.00	0.01	1.910	4.21	-0.01
4.23	6.00	0.00	1.729	4.22	-0.01
4.23	26.00	0.01	2.357	4.23	-0.00
4.27	30.00	0.01	2.513	4.26	-0.00
6.75	30.00	0.01	3.694	6.75	-0.00
6.86	26.00	0.01	3.524	6.87	0.01
6.93	12.00	0.01	2.830	6.93	0.00
6.94	20.00	0.01	3.236	6.93	-0.00
6.94	6.00	0.00	2.531	6.95	0.01
7.01	2.00	0.00	2.342	7.01	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 [deg K]

OxSol(T,S) = oxygen saturation [ml/l], P = pressure [dbar], Residual = instrument oxygen - bath oxygen

Date, Delta Ox (ml/l)

