

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0363  
CALIBRATION DATE: 21-Feb-05p

SBE 43 OXYGEN CALIBRATION DATA

## COEFFICIENTS

Soc = 0.4010

Boc = 0.0000

Voffset = -0.6483

TCor = -0.0003

PCor = 1.350e-04

BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(VOLTS)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.41	12.00	0.01	1.116	1.41	0.00
1.42	6.00	0.00	1.058	1.43	0.01
1.45	30.00	0.01	1.341	1.45	-0.00
1.46	26.00	0.01	1.291	1.45	-0.00
1.46	20.00	0.01	1.222	1.46	-0.01
1.47	2.00	0.00	1.028	1.47	-0.00
4.17	12.00	0.01	2.034	4.17	0.01
4.19	6.00	0.00	1.854	4.20	0.01
4.20	30.00	0.01	2.652	4.21	0.01
4.20	20.00	0.01	2.298	4.18	-0.02
4.21	26.00	0.01	2.507	4.19	-0.01
4.25	2.00	0.00	1.744	4.24	-0.00
7.07	30.00	0.01	4.027	7.09	0.03
7.25	12.00	0.01	3.060	7.26	0.02
7.32	6.00	0.00	2.755	7.34	0.02
7.35	2.00	0.00	2.541	7.33	-0.01
7.37	20.00	0.01	3.543	7.34	-0.03
7.39	26.00	0.01	3.920	7.38	-0.01

$$\text{oxygen (ml/l)} = (\text{Soc} * (\text{V} + \text{Voffset})) * \exp(\text{Tcor} * \text{T}) * \text{Oxsat}(\text{T}, \text{S}) * \exp(\text{Pcor} * \text{P})$$

V = voltage output from SBE43, T = temperature [deg C], S = salinity [PSU]

Oxsat(T,S) = oxygen saturation [ml/l], P = pressure [dbar]

Residual = instrument oxygen - bath oxygen

