

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0680
CALIBRATION DATE: 03-Apr-05p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.4278

Boc = 0.0000

Voffset = -0.4695

TCor = -0.0007

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)
1.39	20.00	0.01	0.987	1.39	0.00
1.39	12.00	0.01	0.909	1.40	0.01
1.44	30.00	0.01	1.119	1.43	-0.00
1.45	26.00	0.01	1.077	1.44	-0.00
1.47	6.00	0.00	0.868	1.48	0.01
1.48	2.00	0.00	0.827	1.48	-0.00
4.16	12.00	0.01	1.776	4.17	0.02
4.16	20.00	0.01	2.020	4.15	-0.01
4.20	26.00	0.01	2.232	4.19	-0.01
4.21	30.00	0.01	2.373	4.20	-0.00
4.25	6.00	0.00	1.621	4.27	0.01
4.28	2.00	0.00	1.499	4.25	-0.03
6.91	30.00	0.01	3.599	6.91	-0.00
7.09	12.02	0.01	2.701	7.13	0.04
7.13	6.00	0.00	2.397	7.14	0.01
7.19	26.00	0.01	3.495	7.19	0.01
7.19	2.00	0.00	2.205	7.16	-0.03
7.19	20.00	0.01	3.151	7.18	-0.02

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

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

