

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0463
CALIBRATION DATE: 18-May-07p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.3418

Boc = 0.0000

Voffset = -0.4675

TCor = 0.0023

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)
1.25	2.00	0.00	0.846	1.26	0.00
1.26	20.00	0.01	1.020	1.26	-0.00
1.26	26.00	0.01	1.081	1.26	0.00
1.26	6.00	0.00	0.886	1.26	0.00
1.27	12.00	0.01	0.945	1.26	-0.00
1.27	30.00	0.01	1.128	1.28	0.00
4.15	20.00	0.01	2.286	4.13	-0.01
4.15	26.00	0.01	2.487	4.15	0.00
4.15	2.00	0.00	1.721	4.16	0.01
4.16	30.00	0.01	2.627	4.17	0.01
4.18	6.00	0.00	1.853	4.18	-0.01
4.19	12.00	0.01	2.043	4.17	-0.02
6.51	30.00	0.01	3.845	6.53	0.02
6.71	20.00	0.01	3.410	6.69	-0.02
6.71	2.00	0.00	2.497	6.74	0.02
6.75	26.00	0.01	3.752	6.75	0.00
6.75	6.00	0.00	2.706	6.75	-0.00
6.77	12.00	0.01	3.020	6.76	-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

