

# SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington, 98005 USA

Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0463  
CALIBRATION DATE: 31-Aug-07p

SBE 43 OXYGEN CALIBRATION DATA

**COEFFICIENTS**

Soc = 0.3437

Boc = 0.0000

Voffset = -0.4673

TCor = 0.0020

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)
1.30	6.00	0.00	0.899	1.31	0.01
1.31	2.00	0.00	0.857	1.30	-0.00
1.31	12.00	0.00	0.964	1.32	0.01
1.32	20.00	0.00	1.047	1.32	0.00
1.32	30.00	0.00	1.154	1.32	0.00
1.33	26.00	0.00	1.115	1.33	0.00
4.33	30.00	0.00	2.719	4.34	0.01
4.36	2.00	0.00	1.766	4.33	-0.03
4.37	12.00	0.00	2.122	4.39	0.02
4.38	6.00	0.00	1.915	4.38	0.01
4.40	26.00	0.00	2.604	4.39	-0.01
4.40	20.00	0.00	2.399	4.39	-0.01
6.99	30.00	0.00	4.094	6.99	0.00
7.15	20.00	0.00	3.609	7.15	-0.00
7.15	26.00	0.00	3.943	7.14	-0.02
7.17	2.00	0.00	2.607	7.14	-0.03
7.18	12.00	0.00	3.184	7.21	0.03
7.19	6.00	0.00	2.847	7.21	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

