

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0197  
CALIBRATION DATE: 23-Apr-05p

SBE 43 OXYGEN CALIBRATION DATA

## COEFFICIENTS

Soc = 0.4588

Boc = 0.0000

Voffset = -0.4832

TCor = 0.0024

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	12.00	0.01	0.856	1.33	0.03
1.31	6.00	0.00	0.809	1.32	0.01
1.32	2.00	0.00	0.776	1.30	-0.02
1.33	30.00	0.01	0.996	1.33	0.00
1.33	20.00	0.01	0.927	1.35	0.02
1.35	26.00	0.01	0.975	1.36	0.01
4.12	30.00	0.01	2.054	4.08	-0.03
4.12	26.00	0.01	1.970	4.11	-0.02
4.12	20.00	0.01	1.846	4.16	0.04
4.13	6.00	0.00	1.506	4.14	0.01
4.13	12.00	0.01	1.664	4.20	0.07
4.15	2.00	0.00	1.398	4.07	-0.08
6.92	12.00	0.01	2.463	7.04	0.12
6.93	6.00	0.00	2.202	6.96	0.03
6.97	2.00	0.00	2.021	6.85	-0.12
6.98	20.00	0.01	2.789	7.05	0.07
7.01	26.00	0.01	3.010	6.98	-0.03
7.11	30.00	0.01	3.189	7.03	-0.08

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

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

