

SG 146

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0133  
CALIBRATION DATE: 04-Dec-07p

## SBE 43F OXYGEN CALIBRATION DATA

### COEFFICIENTS

Soc = 2.1348e-004  
Foffset = -785.0116

A = -2.0207e-003  
B = 2.3025e-004  
C = -4.2484e-006  
E = 0.036

BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(Hz)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.24	6.00	0.00	1459.328	1.25	0.00
1.24	2.00	0.00	1389.368	1.24	0.00
1.25	12.00	0.01	1559.525	1.25	0.00
1.25	20.00	0.01	1693.336	1.26	0.00
1.26	26.00	0.01	1796.576	1.26	0.01
1.27	30.00	0.01	1879.758	1.28	0.01
4.13	26.00	0.01	4102.099	4.13	0.00
4.13	20.00	0.01	3769.469	4.13	-0.01
4.16	12.00	0.01	3359.027	4.15	-0.01
4.16	30.00	0.01	4359.096	4.16	0.00
4.16	6.00	0.00	3028.462	4.15	-0.01
4.16	2.00	0.00	2802.981	4.16	-0.01
6.84	30.00	0.01	6648.581	6.83	-0.00
6.84	20.00	0.01	5734.068	6.84	0.00
6.85	26.00	0.01	6281.566	6.85	0.00
6.89	12.00	0.01	5058.443	6.89	0.00
6.91	6.00	0.00	4523.300	6.92	0.01
6.93	2.00	0.00	4151.174	6.93	0.00

Oxygen (ml/l) = Soc \* (F + Foffset) \* (1.0 + A \* T + B \* T<sup>2</sup> + C \* T<sup>3</sup>) \* OxSol(T,S) \* exp(E \* P / K)  
 F = frequency output from SBE43F, T = temperature [deg C], S = salinity [PSU] K = temperature [deg K]  
 OxSol(T,S) = oxygen saturation [ml/l], P = pressure [dbar]  
 Residual = instrument oxygen - bath oxygen

