

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: 0086
CALIBRATION DATE: 24-Jan-09p

SBE 43F OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 2.0915e-004 (DI)
Foffset = -773.19
Tau20 = 1.23

A = -1.9749e-003
B = 2.0669e-004
C = -3.6111e-006
E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4 H1 = -3.30000e-2
D2 = -4.64803e-2 H2 = 5.00000e+3
H3 = 1.45000e+3

BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(Hz)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.27	12.00	0.01	1576.59	1.27	0.00
1.27	2.00	0.00	1403.11	1.27	0.00
1.27	20.00	0.01	1714.14	1.27	0.00
1.27	6.00	0.01	1475.07	1.27	0.00
1.27	26.00	0.01	1818.95	1.27	-0.00
1.29	30.00	0.02	1903.38	1.29	-0.00
4.23	20.00	0.01	3907.76	4.23	-0.00
4.24	26.00	0.01	4258.16	4.24	0.00
4.25	12.00	0.01	3462.94	4.24	-0.00
4.26	30.00	0.02	4511.83	4.26	0.00
4.27	6.00	0.01	3124.80	4.26	-0.01
4.28	2.00	0.00	2893.57	4.28	-0.00
6.60	30.00	0.02	6570.19	6.60	-0.00
6.78	26.00	0.01	6350.40	6.79	0.00
6.79	20.00	0.01	5798.98	6.78	-0.00
6.82	12.00	0.01	5102.18	6.83	0.00
6.87	6.00	0.01	4569.52	6.88	0.01
6.92	2.00	0.00	4200.06	6.91	-0.00

$$\text{Oxygen (ml/l)} = \text{Soc} * (\text{F} + \text{Foffset}) * (1.0 + \text{A} * \text{T} + \text{B} * \text{T}^2 + \text{C} * \text{T}^3) * \text{OxSol(T,S)} * \exp(\text{E} * \text{P} / \text{K})$$

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

Date, Delta Ox (ml/l)

