

# 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: 1348  
 CALIBRATION DATE: 17-Mar-09p

## SBE 43 OXYGEN CALIBRATION DATA

### COEFFICIENTS

Soc = 0.4793  
 Voffset = -0.5152  
 Tau20 = 1.52

A = -9.4740e-004

B = 1.4866e-004

C = -2.8206e-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(VOLTS)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.22	2.00	0.00	0.779	1.22	-0.00
1.23	6.00	0.01	0.810	1.23	-0.00
1.25	12.00	0.01	0.859	1.25	0.00
1.26	20.00	0.01	0.922	1.26	0.00
1.27	26.00	0.01	0.970	1.27	0.00
1.28	30.00	0.02	1.006	1.28	0.00
4.13	2.00	0.00	1.405	4.12	-0.01
4.14	6.00	0.01	1.506	4.13	-0.01
4.15	12.00	0.01	1.657	4.15	-0.00
4.15	20.00	0.01	1.853	4.15	0.00
4.18	26.00	0.01	2.013	4.18	-0.00
4.20	30.00	0.02	2.127	4.21	0.00
6.47	30.00	0.02	2.997	6.47	-0.00
6.64	26.00	0.01	2.892	6.64	-0.00
6.71	20.00	0.01	2.678	6.71	-0.00
6.74	12.00	0.01	2.370	6.74	0.00
6.79	6.00	0.01	2.142	6.78	-0.00
6.84	2.00	0.00	1.993	6.85	0.01

Oxygen (ml/l) = Soc \* (V + Voffset) \* (1.0 + A \* T + B \* T<sup>2</sup> + C \* T<sup>3</sup>) \* OxSol(T,S) \* exp(E \* P / K)

V = voltage output from SBE43, 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)

