

# Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0387  
 CALIBRATION DATE: 17-Sep-11

SBE 43 OXYGEN CALIBRATION DATA

**COEFFICIENTS**

Soc = 0.4715  
 Voffset = -0.4958  
 Tau20 = 1.30

A = -3.4804e-003  
 B = 1.6118e-004  
 C = -2.8130e-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)
1.27	2.00	0.07	0.776	1.27	0.00
1.27	6.00	0.07	0.811	1.28	0.01
1.27	12.00	0.06	0.864	1.28	0.01
1.28	20.00	0.06	0.938	1.29	0.01
1.28	26.00	0.06	0.995	1.30	0.01
1.29	30.00	0.06	1.038	1.30	0.02
4.20	12.00	0.06	1.700	4.18	-0.02
4.20	6.00	0.07	1.531	4.18	-0.02
4.20	20.00	0.06	1.934	4.19	-0.01
4.21	26.00	0.06	2.118	4.21	0.00
4.21	2.00	0.07	1.418	4.18	-0.03
4.21	30.00	0.06	2.244	4.20	-0.01
6.69	30.00	0.06	3.277	6.69	-0.00
6.77	26.00	0.06	3.110	6.78	0.00
6.79	20.00	0.06	2.825	6.79	-0.00
6.84	12.00	0.06	2.468	6.84	0.01
6.89	6.00	0.07	2.206	6.91	0.02
6.97	2.00	0.07	2.038	6.99	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)

