

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0154
CALIBRATION DATE: 05-Mar-10p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.4767

Voffset = -0.5189

Tau20 = 1.83

A = -2.3019e-003

B = 1.0396e-004

C = -2.3243e-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)
1.23	2.00	0.01	0.786	1.23	-0.00
1.24	6.00	0.01	0.821	1.24	0.00
1.26	12.00	0.01	0.876	1.26	0.00
1.27	20.00	0.02	0.951	1.28	0.00
1.29	26.00	0.02	1.014	1.30	0.01
1.30	30.00	0.02	1.060	1.31	0.01
4.21	2.00	0.01	1.432	4.20	-0.02
4.24	6.00	0.01	1.549	4.23	-0.01
4.26	12.00	0.01	1.724	4.26	-0.01
4.28	20.00	0.02	1.961	4.27	-0.01
4.31	26.00	0.02	2.160	4.31	0.00
4.34	30.00	0.02	2.309	4.34	0.00
6.71	30.00	0.02	3.281	6.70	-0.01
6.89	26.00	0.02	3.149	6.90	0.01
6.98	20.00	0.02	2.874	6.98	-0.00
7.03	12.00	0.01	2.508	7.03	0.00
7.06	6.00	0.01	2.241	7.07	0.01
7.09	2.00	0.01	2.063	7.09	0.01

Oxygen (ml/l) = Soc * (V + Voffset) * (1.0 + A * T + B * T² + C * T³) * 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)

