

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0154
CALIBRATION DATE: 11-Sep-10p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.4568

Voffset = -0.5150

Tau20 = 1.51

A = -3.6683e-003

B = 1.9406e-004

C = -3.1386e-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)
1.24	6.00	0.02	0.832	1.24	-0.00
1.25	12.00	0.02	0.885	1.25	-0.00
1.25	2.00	0.02	0.799	1.25	-0.00
1.26	20.00	0.02	0.956	1.26	0.00
1.26	26.00	0.02	1.012	1.26	0.00
1.26	30.00	0.02	1.052	1.27	0.00
4.16	12.00	0.02	1.751	4.16	-0.00
4.17	2.00	0.02	1.463	4.16	-0.00
4.17	6.00	0.02	1.580	4.17	0.00
4.17	26.00	0.02	2.158	4.18	0.01
4.17	20.00	0.02	1.982	4.17	0.00
4.19	30.00	0.02	2.288	4.20	0.00
6.64	30.00	0.02	3.317	6.63	-0.01
6.70	26.00	0.02	3.152	6.71	0.01
6.71	20.00	0.02	2.868	6.69	-0.01
6.76	12.00	0.02	2.523	6.77	0.00
6.79	6.00	0.02	2.250	6.79	0.00
6.89	2.00	0.02	2.085	6.89	0.00

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)

