

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0154
CALIBRATION DATE: 17-Mar-09p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.4473

Voffset = -0.5133

Tau20 = 1.42

A = -7.6940e-004

B = 1.1544e-004

C = -2.5069e-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	0.795	1.22	-0.00
1.23	6.00	0.01	0.829	1.23	-0.00
1.25	12.00	0.01	0.882	1.25	0.00
1.26	20.00	0.01	0.953	1.26	0.00
1.27	26.00	0.01	1.007	1.27	0.00
1.28	30.00	0.02	1.048	1.28	0.00
4.13	2.00	0.00	1.467	4.12	-0.00
4.14	6.00	0.01	1.575	4.13	-0.00
4.15	12.00	0.01	1.739	4.15	-0.00
4.15	20.00	0.01	1.957	4.15	0.00
4.18	26.00	0.01	2.138	4.18	0.00
4.20	30.00	0.02	2.268	4.20	0.00
6.47	30.00	0.02	3.214	6.47	-0.00
6.64	26.00	0.01	3.091	6.64	-0.00
6.71	20.00	0.01	2.847	6.71	-0.00
6.74	12.00	0.01	2.505	6.74	0.00
6.79	6.00	0.01	2.257	6.78	-0.00
6.84	2.00	0.00	2.097	6.85	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)

