

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0730
CALIBRATION DATE: 10-Oct-14

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:

Soc = 0.4864
Voffset = -0.5129
Tau20 = 1.16

A = -4.1873e-003
B = 1.8841e-004
C = -3.3196e-006
E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4 H1 = -3.300000e-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)
1.25	2.00	0.00	0.780	1.25	-0.00
1.25	6.00	0.00	0.814	1.25	-0.00
1.26	12.00	0.00	0.866	1.26	-0.00
1.28	20.00	0.00	0.942	1.28	-0.00
1.29	26.00	0.00	0.999	1.29	-0.00
1.30	30.00	0.00	1.043	1.30	-0.00
4.03	12.00	0.00	1.645	4.03	0.00
4.05	6.00	0.00	1.489	4.06	0.01
4.06	2.00	0.00	1.383	4.07	0.01
4.07	26.00	0.00	2.047	4.07	-0.00
4.07	20.00	0.00	1.877	4.07	0.00
4.08	30.00	0.00	2.174	4.08	-0.00
6.78	12.00	0.00	2.416	6.78	-0.00
6.78	2.00	0.00	1.964	6.78	-0.00
6.79	6.00	0.00	2.144	6.78	-0.01
6.84	26.00	0.00	3.091	6.84	-0.01
6.86	20.00	0.00	2.813	6.87	0.00
6.89	30.00	0.00	3.320	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

