

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2082

SBE 43 OXYGEN CALIBRATION DATA

CALIBRATION DATE: 28-Aug-15

COEFFICIENTS:

Soc = 0.4244

Voffset = -0.5322

Tau20 = 1.15

A = -3.4781e-003

B = 2.3370e-004

C = -3.3610e-006

E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4

D2 = -4.64803e-2

H1 = -3.300000e-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)
1.16	2.00	0.00	0.815	1.16	-0.00
1.17	6.00	0.00	0.853	1.17	-0.00
1.20	12.00	0.00	0.911	1.20	-0.00
1.20	20.00	0.00	0.979	1.20	0.00
1.21	26.00	0.00	1.032	1.21	0.00
1.22	30.00	0.00	1.069	1.22	0.00
3.97	2.00	0.00	1.505	3.97	0.00
3.98	6.00	0.00	1.623	3.98	0.00
3.99	12.00	0.00	1.797	3.99	0.00
4.01	20.00	0.00	2.024	4.02	0.00
4.05	26.00	0.00	2.198	4.05	0.00
4.08	30.00	0.00	2.321	4.08	0.00
6.76	2.00	0.00	2.188	6.76	-0.00
6.78	6.00	0.00	2.392	6.79	0.00
6.80	12.00	0.00	2.687	6.80	-0.00
6.88	20.00	0.00	3.087	6.88	-0.00
6.93	26.00	0.00	3.387	6.94	0.00
6.95	30.00	0.00	3.579	6.94	-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

