

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0703
CALIBRATION DATE: 17-Mar-17

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:

Soc = 0.5557
Voffset = -0.5186
Tau20 = 1.37

A = -3.4742e-003
B = 1.6601e-004
C = -2.8391e-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 OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (volts)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
1.11	2.00	0.00	0.727	1.11	-0.00
1.12	12.00	0.00	0.791	1.11	-0.00
1.12	6.00	0.00	0.753	1.12	-0.00
1.13	20.00	0.00	0.847	1.13	-0.00
1.16	26.00	0.00	0.897	1.16	-0.00
1.16	30.00	0.00	0.927	1.16	0.00
3.84	2.00	0.00	1.238	3.85	0.00
3.86	12.00	0.00	1.462	3.86	0.00
3.87	6.00	0.00	1.331	3.87	0.00
3.88	20.00	0.00	1.646	3.88	0.00
3.93	26.00	0.00	1.802	3.93	0.00
3.98	30.00	0.00	1.915	3.98	-0.00
6.61	2.00	0.00	1.755	6.61	-0.00
6.64	6.00	0.00	1.912	6.64	0.00
6.64	12.00	0.00	2.140	6.64	-0.00
6.69	20.00	0.00	2.461	6.69	-0.00
6.71	26.00	0.00	2.708	6.71	0.00
6.82	30.00	0.00	2.914	6.82	0.00

V = instrument output (volts); T = temperature (°C); S = salinity (PSU); K = temperature (°K)

Oxsol(T,S) = oxygen saturation (ml/l); P = pressure (dbar)

Oxygen (ml/l) = Soc * (V + Voffset) * (1.0 + A * T + B * T² + C * T³) * Oxsol(T,S) * exp(E * P / K)

Residual (ml/l) = instrument oxygen - bath oxygen

