

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0702
CALIBRATION DATE: 27-Jan-17

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:

Soc = 0.4791
Voffset = -0.5055
Tau20 = 1.25

A = -3.3018e-003
B = 1.5746e-004
C = -2.6370e-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)
1.09	6.00	0.00	0.772	1.09	-0.00
1.10	12.00	0.00	0.818	1.10	0.00
1.10	2.00	0.00	0.744	1.10	-0.00
1.12	20.00	0.00	0.883	1.12	0.00
1.13	26.00	0.00	0.934	1.14	0.01
1.15	30.00	0.00	0.976	1.16	0.01
3.88	2.00	0.00	1.345	3.87	-0.00
3.89	12.00	0.00	1.605	3.89	0.00
3.89	6.00	0.00	1.452	3.89	0.00
3.91	20.00	0.00	1.815	3.90	-0.01
3.92	26.00	0.00	1.984	3.92	-0.00
3.96	30.00	0.00	2.112	3.96	-0.01
6.70	2.00	0.00	1.958	6.70	-0.00
6.76	12.00	0.00	2.414	6.75	-0.01
6.78	6.00	0.00	2.157	6.79	0.01
6.80	20.00	0.00	2.793	6.80	-0.00
6.82	30.00	0.00	3.274	6.82	-0.00
6.83	26.00	0.00	3.090	6.85	0.01

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

