

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2691

SBE 43 OXYGEN CALIBRATION DATA

CALIBRATION DATE: 28-Aug-15

COEFFICIENTS:

Soc = 0.4422

Voffset = -0.4924

Tau20 = 1.05

A = -4.4132e-003

B = 2.4006e-004

C = -3.3459e-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	0.765	1.16	-0.00
1.17	6.00	0.00	0.802	1.17	-0.00
1.20	12.00	0.00	0.860	1.20	0.00
1.20	20.00	0.00	0.928	1.20	0.00
1.21	26.00	0.00	0.982	1.22	0.00
1.22	30.00	0.00	1.019	1.22	0.00
3.97	2.00	0.00	1.427	3.97	-0.00
3.98	6.00	0.00	1.545	3.98	-0.00
3.99	12.00	0.00	1.720	3.99	0.00
4.01	20.00	0.00	1.946	4.01	-0.00
4.05	26.00	0.00	2.122	4.05	-0.00
4.08	30.00	0.00	2.248	4.08	0.00
6.76	2.00	0.00	2.085	6.76	0.00
6.78	6.00	0.00	2.287	6.78	0.00
6.80	12.00	0.00	2.583	6.80	0.00
6.88	20.00	0.00	2.985	6.88	-0.00
6.93	26.00	0.00	3.288	6.94	0.01
6.95	30.00	0.00	3.480	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

