

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0338
 CALIBRATION DATE: 28-Sep-12

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.3660
 Voffset = -0.5638
 Tau20 = 1.65

A = -2.6353e-003
 B = 1.2146e-004
 C = -1.7185e-006
 E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4 H1 = -3.30000e-2
 D2 = -4.64803e-2 H2 = 5.00000e+3
 H3 = 1.45000e+3

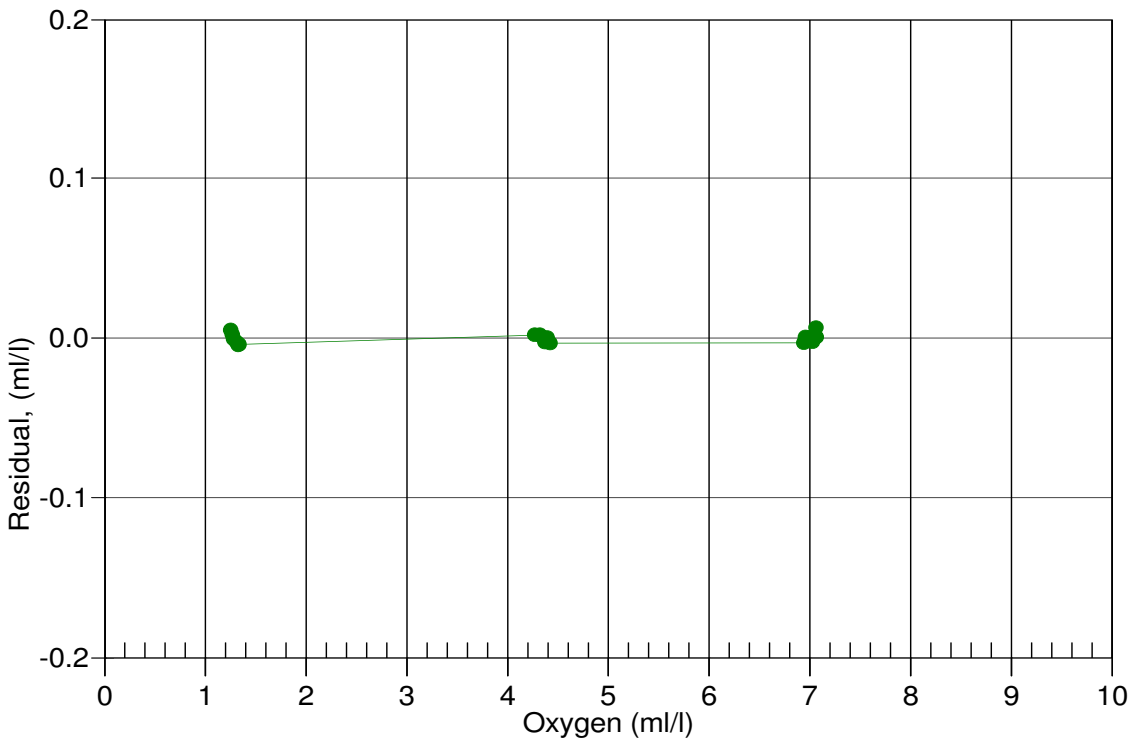
BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(VOLTS)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.25	2.00	0.04	0.921	1.26	0.00
1.27	6.00	0.04	0.967	1.27	0.00
1.28	12.00	0.04	1.037	1.28	-0.00
1.31	20.00	0.04	1.137	1.31	-0.00
1.32	26.00	0.04	1.209	1.32	-0.00
1.33	30.00	0.04	1.262	1.33	-0.00
4.27	2.00	0.04	1.775	4.27	0.00
4.32	6.00	0.04	1.936	4.32	0.00
4.34	12.00	0.04	2.166	4.34	0.00
4.37	20.00	0.04	2.475	4.37	-0.00
4.39	26.00	0.04	2.714	4.39	0.00
4.42	30.00	0.04	2.884	4.42	-0.00
6.94	2.00	0.04	2.533	6.94	-0.00
6.95	6.00	0.04	2.772	6.95	0.00
7.00	12.00	0.04	3.144	7.00	0.00
7.03	20.00	0.04	3.636	7.03	-0.00
7.06	26.00	0.04	4.023	7.07	0.01
7.07	30.00	0.04	4.275	7.07	0.00

$$\text{Oxygen (ml/l)} = \text{Soc} * (\text{V} + \text{Voffset}) * (1.0 + \text{A} * \text{T} + \text{B} * \text{T}^2 + \text{C} * \text{T}^3) * \text{OxSol}(\text{T}, \text{S}) * \exp(\text{E} * \text{P} / \text{K})$$

V = voltage output from SBE43, T = temperature [deg C], S = salinity [PSU], K = temperature [Kelvin]

OxSol(T,S) = oxygen saturation [ml/l], P = pressure [dbar], Residual = instrument oxygen - bath oxygen

Date, Delta Ox (ml/l)



28-Sep-12 1.0000