

# Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 2100

SBE 43 OXYGEN CALIBRATION DATA

CALIBRATION DATE: 05-May-15

## COEFFICIENTS:

Soc = 0.3606

Voffset = -0.6876

Tau20 = 1.23

A = -4.3401e-003

B = 2.0699e-004

C = -3.4268e-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)
1.22	2.00	0.00	1.040	1.22	-0.00
1.23	6.00	0.00	1.088	1.23	-0.00
1.25	12.00	0.00	1.159	1.25	-0.00
1.27	20.00	0.00	1.258	1.27	-0.00
1.29	26.00	0.00	1.340	1.29	0.00
1.31	30.00	0.00	1.402	1.31	0.00
3.98	6.00	0.00	1.979	3.98	0.00
3.99	2.00	0.00	1.840	3.99	0.00
4.01	12.00	0.00	2.205	4.01	0.00
4.03	20.00	0.00	2.499	4.03	0.00
4.07	26.00	0.00	2.748	4.08	0.01
4.13	30.00	0.00	2.935	4.13	-0.00
6.76	2.00	0.00	2.639	6.75	-0.00
6.76	6.00	0.00	2.881	6.76	0.00
6.76	12.00	0.00	3.246	6.76	-0.00
6.78	20.00	0.00	3.741	6.79	0.00
6.85	26.00	0.00	4.147	6.85	-0.00
6.91	30.00	0.00	4.447	6.91	0.00

Oxygen (ml/l) = Soc \* (V + Voffset) \* (1.0 + A \* T + B \* T<sup>2</sup> + C \* T<sup>3</sup>) \* 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

