



Sea-Bird Scientific
13431 NE 20th Street
Bellevue, WA 98005
USA

+1 425-643-9866
seabird@seabird.com
www.seabird.com

SENSOR SERIAL NUMBER: 2040
CALIBRATION DATE: 27-Oct-17

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:
Soc = 0.4962
Voffset = -0.5059
Tau20 = 1.27
A = -4.3351e-003
B = 1.9838e-004
C = -2.5936e-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 OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (volts)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
1.08	2.00	0.00	0.731	1.07	-0.01
1.09	6.00	0.00	0.762	1.08	-0.00
1.10	12.00	0.00	0.807	1.10	-0.00
1.12	20.00	0.00	0.870	1.12	0.00
1.13	26.00	0.00	0.916	1.13	0.00
1.13	30.00	0.00	0.951	1.14	0.01
3.84	2.00	0.00	1.312	3.84	-0.00
3.86	6.00	0.00	1.416	3.86	0.00
3.88	12.00	0.00	1.572	3.88	0.00
3.90	26.00	0.00	1.927	3.91	0.00
3.90	20.00	0.00	1.778	3.90	-0.00
3.93	30.00	0.00	2.036	3.93	0.01
6.66	2.00	0.00	1.903	6.66	-0.00
6.70	6.00	0.00	2.087	6.70	0.00
6.74	12.00	0.00	2.358	6.74	-0.00
6.80	20.00	0.00	2.720	6.79	-0.01
6.80	30.00	0.00	3.150	6.79	-0.01
6.80	26.00	0.00	2.981	6.80	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

