



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

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

SENSOR SERIAL NUMBER: 1876
CALIBRATION DATE: 20-Feb-19

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:
Soc = 0.5068
Voffset = -0.4989
Tau20 = 1.37
A = -5.2701e-003
B = 2.4403e-004
C = -3.8774e-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)
1.16	2.00	0.00	0.737	1.16	-0.00
1.16	6.00	0.00	0.768	1.16	-0.00
1.17	12.00	0.00	0.815	1.17	-0.00
1.18	20.00	0.00	0.881	1.18	0.00
1.20	26.00	0.00	0.932	1.20	-0.00
1.21	30.00	0.00	0.973	1.22	0.00
3.96	2.00	0.00	1.314	3.96	0.00
3.97	6.00	0.00	1.419	3.97	-0.00
3.99	12.01	0.00	1.581	3.99	0.00
3.99	20.00	0.00	1.790	4.00	0.01
4.03	26.00	0.00	1.960	4.03	-0.00
4.09	30.00	0.00	2.095	4.09	0.00
6.78	2.00	0.00	1.896	6.78	0.00
6.83	6.00	0.00	2.083	6.83	-0.00
6.89	12.03	0.00	2.367	6.89	-0.00
6.91	20.00	0.00	2.732	6.92	0.01
6.93	30.00	0.00	3.203	6.94	0.01
6.96	26.00	0.00	3.014	6.95	-0.02

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

