

Sea-Bird Scientific 13431 NE 20th Street Bellevue, WA 98005 USA +1 425-643-9866 seabird@seabird.com www.seabird.com

SENSOR SERIAL NUMBER: 3706

SBE 43 OXYGEN CALIBRATION DATA

CALIBRATION DATE: 28-Jan-23

COEFFICIENTS: A = -3.4707e-003 NOMINAL DYNAMIC COEFFICIENTS
Soc = 0.4380 B = 1.6721e-004 D1 = 1.92634e-4 H1 = -3.300000e-2
Voffset = -0.4967 C = -2.6755e-006 D2 = -4.64803e-2 H2 = 5.00000e+3
Tau20 = 2.00 E nominal = 0.036 H3 = 1.45000e+3

BATH OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (volts)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
1.10	2.00	0.00	0.757	1.10	-0.00
1.11	6.00	0.00	0.790	1.10	-0.00
1.12	12.00	0.00	0.842	1.12	-0.00
1.14	20.00	0.00	0.914	1.14	-0.00
1.15	26.00	0.00	0.971	1.15	0.00
1.16	30.00	0.00	1.011	1.16	0.00
3.86	2.00	0.00	1.413	3.86	0.00
3.87	6.00	0.00	1.528	3.88	0.00
3.90	12.00	0.00	1.704	3.90	0.00
3.91	20.00	0.00	1.936	3.91	0.00
3.92	26.00	0.00	2.113	3.92	0.00
3.93	30.00	0.00	2.240	3.93	0.00
6.67	2.00	0.00	2.081	6.67	-0.00
6.72	6.00	0.00	2.285	6.72	-0.00
6.76	12.00	0.00	2.588	6.75	-0.00
6.77	30.02	0.00	3.498	6.77	-0.00
6.80	20.00	0.00	2.995	6.80	-0.00
6.82	26.00	0.00	3.309	6.82	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 * T^2 + C * T^3) * Oxsol(T,S) * exp(E * P / K)

Residual (ml/l) = instrument oxygen - bath oxygen

