

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

SENSOR SERIAL NUMBER: 0904 SBE 43 OXYGEN CALIBRATION DATA

CALIBRATION DATE: 06-Apr-24

COEFFICIENTS: A = -3.1700e-003 NOMINAL DYNAMIC COEFFICIENTS

Soc = 0.4682 B = 1.4617e-004 D1 = 1.92634e-4 H1 = -3.300000e-2

Voffset = -0.5105 C = -1.9684e-006 D2 = -4.64803e-2 H2 = 5.00000e+3

Tau20 = 0.94 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)
1.15	2.00	0.00	0.766	1.15	-0.00
1.16	6.00	0.00	0.798	1.16	-0.00
1.17	12.00	0.00	0.849	1.17	-0.00
1.19	20.00	0.00	0.917	1.19	-0.00
1.20	26.00	0.00	0.971	1.20	0.00
1.20	30.00	0.00	1.007	1.21	0.01
3.98	2.00	0.00	1.394	3.98	-0.00
4.00	6.00	0.00	1.506	4.00	0.00
4.03	12.00	0.00	1.675	4.03	0.00
4.06	20.00	0.00	1.904	4.06	-0.00
4.10	26.00	0.00	2.082	4.10	0.01
4.11	30.00	0.00	2.199	4.11	0.01
6.84	2.00	0.00	2.028	6.84	0.00
6.89	6.00	0.00	2.225	6.89	0.00
6.97	12.00	0.00	2.525	6.97	-0.00
7.06	20.00	0.00	2.930	7.06	-0.00
7.13	26.00	0.00	3.242	7.13	0.00
7.15	30.00	0.00	3.444	7.14	-0.01

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

