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

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

SENSOR SERIAL NUMBER: 1910 SBE 63 OXYGEN CALIBRATION DATA
CALIBRATION DATE: 25-Mar-25

COEFFICIENTS:

A0 = 1.0513e+00	B0 = -2.2294e-01	C0 = 8.9473e-02	E = 1.1000e-02
A1 = -1.5000e-03	B1 = 1.6651e+00	C1 = 3.8052e-03	
A2 = 4.5086e-01		C2 = 5.2052e-05	

BATH OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (µsec)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
0.794	30.00	0.00	30.42	0.803	0.010
0.818	26.00	0.00	31.16	0.825	0.007
0.871	20.00	0.00	32.22	0.874	0.004
0.955	12.00	0.00	33.68	0.956	0.001
1.059	6.00	0.00	34.69	1.058	-0.000
1.158	2.00	0.00	35.30	1.156	-0.001
2.421	30.00	0.00	22.23	2.426	0.005
2.544	26.00	0.00	22.85	2.548	0.004
2.691	20.00	0.00	24.04	2.692	0.001
3.200	12.00	0.00	25.06	3.199	-0.001
3.606	6.00	0.00	26.10	3.599	-0.007
3.954	2.00	0.00	26.79	3.946	-0.008
4.009	30.00	0.00	18.32	4.014	0.006
4.259	26.00	0.00	18.82	4.256	-0.003
4.692	20.00	0.00	19.61	4.689	-0.003
5.418	12.00	0.00	20.76	5.420	0.001
5.617	30.00	0.00	15.91	5.617	0.000
6.035	26.00	0.00	16.28	6.026	-0.008
6.150	6.00	0.00	21.69	6.150	0.000
6.684	20.00	0.00	16.94	6.683	-0.001
6.763	2.00	0.00	22.33	6.761	-0.002
7.725	12.00	0.00	17.99	7.727	0.002
8.758	6.00	0.00	18.85	8.763	0.005
9.254	2.00	0.00	19.76	9.258	0.004

T = temperature (°C) , P = pressure (dbar), U = Instrument output (µsec)

S_{corr} (salinity correction function) = 1.0 for calibration in DI water

See the user manual for more information on S_{corr} calculation

V = U / 39.457071

Oxygen (ml/l) = $\{((A0 + A1*T + A2 * V^2)/(B0 + B1 * V) - 1.0)/(C0 + C1 * T + C2 * T^2)\} * S_{corr} * \exp(E * P / (T + 273.15))$

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