



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

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

SENSOR SERIAL NUMBER: 1802
CALIBRATION DATE: 25-Mar-25

SBE 63 OXYGEN CALIBRATION DATA

COEFFICIENTS:

A0 = 1.0513e+00 B0 = -2.2628e-01 C0 = 8.9269e-02 E = 1.1000e-02
A1 = -1.5000e-03 B1 = 1.6627e+00 C1 = 3.7907e-03
A2 = 4.4639e-01 C2 = 5.2536e-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	30.53	0.804	0.010
0.818	26.00	0.00	31.27	0.826	0.008
0.871	20.00	0.00	32.33	0.875	0.004
0.955	12.00	0.00	33.79	0.956	0.001
1.059	6.00	0.00	34.80	1.058	-0.001
1.158	2.00	0.00	35.41	1.156	-0.002
2.421	30.00	0.00	22.34	2.427	0.006
2.544	26.00	0.00	22.97	2.547	0.003
2.691	20.00	0.00	24.16	2.692	0.001
3.200	12.00	0.00	25.19	3.198	-0.002
3.606	6.00	0.00	26.23	3.599	-0.007
3.954	2.00	0.00	26.92	3.946	-0.008
4.009	30.00	0.00	18.44	4.013	0.005
4.259	26.00	0.00	18.93	4.258	-0.001
4.692	20.00	0.00	19.73	4.687	-0.005
5.418	12.00	0.00	20.89	5.419	0.001
5.617	30.00	0.00	16.02	5.615	-0.002
6.035	26.00	0.00	16.39	6.027	-0.008
6.150	6.00	0.00	21.82	6.149	-0.000
6.684	20.00	0.00	17.05	6.684	0.000
6.763	2.00	0.00	22.46	6.762	-0.002
7.725	12.00	0.00	18.11	7.729	0.004
8.758	6.00	0.00	18.98	8.760	0.002
9.254	2.00	0.00	19.89	9.259	0.005

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

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

