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SENSOR SERIAL NUMBER: 1889  
CALIBRATION DATE: 25-Mar-25

# SBE 63 OXYGEN CALIBRATION DATA

## COEFFICIENTS:

A0 = 1.0513e+00      B0 = -2.2196e-01      C0 = 8.8946e-02      E = 1.1000e-02  
A1 = -1.5000e-03      B1 = 1.6653e+00      C1 = 3.7759e-03  
A2 = 4.5107e-01      C2 = 5.1599e-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	30.43	0.803	0.010
0.818	26.00	0.00	31.17	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	34.68	1.058	-0.000
1.158	2.00	0.00	35.29	1.157	-0.001
2.421	30.00	0.00	22.25	2.426	0.006
2.544	26.00	0.00	22.87	2.548	0.004
2.691	20.00	0.00	24.06	2.691	0.000
3.200	12.00	0.00	25.08	3.199	-0.001
3.606	6.00	0.00	26.12	3.600	-0.006
3.954	2.00	0.00	26.81	3.946	-0.008
4.009	30.00	0.00	18.35	4.014	0.005
4.259	26.00	0.00	18.84	4.256	-0.003
4.692	20.00	0.00	19.63	4.688	-0.004
5.418	12.00	0.00	20.78	5.420	0.001
5.617	30.00	0.00	15.94	5.616	-0.001
6.035	26.00	0.00	16.30	6.029	-0.006
6.150	6.00	0.00	21.71	6.150	-0.000
6.684	20.00	0.00	16.96	6.681	-0.003
6.763	2.00	0.00	22.35	6.761	-0.002
7.725	12.00	0.00	18.01	7.728	0.003
8.758	6.00	0.00	18.87	8.763	0.004
9.254	2.00	0.00	19.78	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) =  $\{((A0 + A1 \cdot T + A2 \cdot V^2)/(B0 + B1 \cdot V) - 1.0)/(C0 + C1 \cdot T + C2 \cdot T^2)\} \cdot S_{corr} \cdot \exp(E \cdot P / (T + 273.15))$

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

Date, Slope Correction

