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SENSOR SERIAL NUMBER: 1755  
CALIBRATION DATE: 25-Mar-25

# SBE 63 OXYGEN CALIBRATION DATA

## COEFFICIENTS:

A0 = 1.0513e+00      B0 = -2.1579e-01      C0 = 8.8922e-02      E = 1.1000e-02  
A1 = -1.5000e-03      B1 = 1.6632e+00      C1 = 3.7674e-03  
A2 = 4.5411e-01      C2 = 5.1645e-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	30.33	0.803	0.009
0.818	26.00	0.00	31.07	0.824	0.006
0.871	20.00	0.00	32.12	0.874	0.004
0.955	12.00	0.00	33.59	0.956	0.001
1.059	6.00	0.00	34.59	1.058	-0.000
1.158	2.00	0.00	35.20	1.157	-0.001
2.421	30.00	0.00	22.13	2.426	0.006
2.544	26.00	0.00	22.75	2.547	0.003
2.691	20.00	0.00	23.95	2.691	0.001
3.200	12.00	0.00	24.96	3.199	-0.001
3.606	6.00	0.00	26.00	3.600	-0.006
3.954	2.00	0.00	26.69	3.946	-0.008
4.009	30.00	0.00	18.23	4.012	0.004
4.259	26.00	0.00	18.72	4.256	-0.003
4.692	20.00	0.00	19.50	4.690	-0.002
5.418	12.00	0.00	20.66	5.420	0.001
5.617	30.00	0.00	15.81	5.617	-0.000
6.035	26.00	0.00	16.17	6.028	-0.007
6.150	6.00	0.00	21.59	6.149	-0.000
6.684	20.00	0.00	16.83	6.684	-0.000
6.763	2.00	0.00	22.22	6.763	-0.000
7.725	12.00	0.00	17.88	7.726	0.001
8.758	6.00	0.00	18.74	8.763	0.004
9.254	2.00	0.00	19.66	9.257	0.003

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

