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SENSOR SERIAL NUMBER: 1788  
CALIBRATION DATE: 27-Mar-25

## SBE 63 OXYGEN CALIBRATION DATA

### COEFFICIENTS:

A0 = 1.0513e+00      B0 = -2.2287e-01      C0 = 8.8448e-02      E = 1.1000e-02  
A1 = -1.5000e-03      B1 = 1.6657e+00      C1 = 3.7299e-03  
A2 = 4.5173e-01      C2 = 5.2329e-05

BATH OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (µsec)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
0.777	30.00	0.00	30.63	0.786	0.009
0.809	26.00	0.00	31.33	0.813	0.004
0.866	20.00	0.00	32.34	0.868	0.002
0.948	12.00	0.00	33.80	0.949	0.001
1.058	6.00	0.00	34.76	1.057	-0.001
1.162	2.00	0.00	35.34	1.162	0.000
2.429	30.00	0.00	22.29	2.434	0.005
2.566	26.00	0.00	22.88	2.568	0.002
2.712	20.00	0.00	24.08	2.711	-0.001
3.223	12.00	0.00	25.10	3.220	-0.003
3.625	6.00	0.00	26.15	3.622	-0.002
3.976	2.00	0.00	26.84	3.970	-0.006
4.039	30.00	0.00	18.36	4.041	0.002
4.292	26.00	0.00	18.85	4.292	-0.000
4.722	20.00	0.00	19.65	4.721	-0.001
5.461	12.00	0.00	20.80	5.459	-0.002
5.689	30.00	0.00	15.90	5.687	-0.002
6.099	26.00	0.00	16.27	6.098	-0.000
6.193	6.00	0.00	21.73	6.192	-0.001
6.731	20.00	0.00	16.98	6.725	-0.006
6.799	2.00	0.00	22.38	6.802	0.002
7.774	12.00	0.00	18.03	7.779	0.005
8.824	6.00	0.00	18.88	8.829	0.005
9.306	2.00	0.00	19.81	9.305	-0.001

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

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

See the user manual for more information on  $S_{\text{corr}}$  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

