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SENSOR SERIAL NUMBER: 1754
CALIBRATION DATE: 25-Mar-25

SBE 63 OXYGEN CALIBRATION DATA

COEFFICIENTS:

A0 = 1.0513e+00 B0 = -2.2161e-01 C0 = 8.8706e-02 E = 1.1000e-02
A1 = -1.5000e-03 B1 = 1.6608e+00 C1 = 3.7607e-03
A2 = 4.4792e-01 C2 = 5.2211e-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	30.49	0.803	0.009
0.818	26.00	0.00	31.24	0.824	0.006
0.871	20.00	0.00	32.29	0.874	0.003
0.955	12.00	0.00	33.75	0.956	0.001
1.059	6.00	0.00	34.75	1.058	-0.000
1.158	2.00	0.00	35.36	1.156	-0.002
2.421	30.00	0.00	22.30	2.425	0.005
2.544	26.00	0.00	22.93	2.546	0.002
2.691	20.00	0.00	24.13	2.691	0.000
3.200	12.00	0.00	25.15	3.198	-0.002
3.606	6.00	0.00	26.19	3.601	-0.005
3.954	2.00	0.00	26.88	3.946	-0.008
4.009	30.00	0.00	18.39	4.014	0.005
4.259	26.00	0.00	18.89	4.257	-0.002
4.692	20.00	0.00	19.68	4.689	-0.003
5.418	12.00	0.00	20.85	5.421	0.002
5.617	30.00	0.00	15.97	5.618	0.001
6.035	26.00	0.00	16.34	6.028	-0.006
6.150	6.00	0.00	21.78	6.150	-0.000
6.684	20.00	0.00	17.01	6.681	-0.003
6.763	2.00	0.00	22.42	6.762	-0.001
7.725	12.00	0.00	18.06	7.727	0.002
8.758	6.00	0.00	18.93	8.763	0.004
9.254	2.00	0.00	19.85	9.257	0.002

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

