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SENSOR SERIAL NUMBER: 1018
CALIBRATION DATE: 24-Nov-20

SBE 63 OXYGEN CALIBRATION DATA

COEFFICIENTS:

A0 = 1.0513e+000 B0 = -2.3753e-001 C0 = 1.1137e-001 E = 1.1000e-002
A1 = -1.5000e-003 B1 = 1.5636e+000 C1 = 4.8170e-003
A2 = 3.3820e-001 C2 = 6.5702e-005

BATH OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (µsec)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
0.675	30.00	0.00	31.36	0.679	0.004
0.708	26.00	0.00	31.96	0.709	0.002
0.773	20.00	0.00	32.79	0.776	0.004
0.863	12.00	0.00	34.12	0.861	-0.002
0.964	6.00	0.00	35.05	0.961	-0.003
1.055	2.00	0.00	35.63	1.050	-0.005
2.098	30.00	0.00	23.03	2.099	0.000
2.238	26.00	0.00	23.54	2.237	-0.001
2.409	20.00	0.00	24.58	2.415	0.006
2.915	12.00	0.00	25.48	2.915	-0.000
3.312	6.00	0.00	26.47	3.311	-0.001
3.498	30.00	0.00	19.03	3.494	-0.004
3.651	2.00	0.00	27.11	3.660	0.009
3.756	26.00	0.00	19.44	3.748	-0.008
4.208	20.00	0.00	20.09	4.212	0.004
4.937	30.00	0.00	16.52	4.936	-0.000
4.945	12.00	0.00	21.14	4.944	-0.001
5.354	26.00	0.00	16.82	5.350	-0.004
5.675	6.00	0.00	22.00	5.671	-0.004
6.037	20.00	0.00	17.35	6.049	0.013
6.263	2.00	0.00	22.62	6.264	0.001
7.074	12.00	0.00	18.33	7.072	-0.002
8.095	6.00	0.00	19.14	8.090	-0.005
8.575	2.00	0.00	20.04	8.576	0.001

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

