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SENSOR SERIAL NUMBER: 0765
CALIBRATION DATE: 31-Aug-21

SBE 63 OXYGEN TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

TA0 = 7.150519e-004 TA2 = 8.010624e-007

TA1 = 2.493534e-004 TA3 = 9.398220e-008

BATH TEMP (° C)	INSTRUMENT OUTPUT(V)	INST TEMP (° C)	RESIDUAL (° C)
2.0000	1.12103	2.0002	0.00019
2.0000	1.12104	1.9999	-0.00011
2.0001	1.12104	1.9999	-0.00021
2.0002	1.12103	2.0002	-0.00001
5.9999	0.99602	6.0000	0.00010
6.0000	0.99602	6.0000	0.00000
6.0000	0.99602	6.0000	0.00000
6.0001	0.99601	6.0003	0.00024
11.9999	0.82917	11.9998	-0.00008
11.9999	0.82917	11.9998	-0.00008
12.0000	0.82917	11.9998	-0.00018
12.0001	0.82916	12.0002	0.00011
19.9999	0.64456	20.0000	0.00012
20.0000	0.64456	20.0000	0.00002
20.0001	0.64456	20.0000	-0.00008
20.0002	0.64456	20.0000	-0.00018
25.9999	0.53212	26.0001	0.00019
25.9999	0.53212	26.0001	0.00019
26.0001	0.53212	26.0001	-0.00001
26.0001	0.53212	26.0001	-0.00001
29.9999	0.46812	29.9995	-0.00045
29.9999	0.46811	30.0001	0.00022
30.0000	0.46811	30.0001	0.00012
30.0002	0.46811	30.0001	-0.00008

V = Instrument Output (Volts)

$L = \ln(100000 * V / (3.3 - V))$

Temperature ITS-90 (°C) = $1 / (TA0 + (TA1 * L) + (TA2 * L^2) + (TA3 * L^3)) - 273.15$

Residual (°C) = instrument temperature - bath temperature

