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SENSOR SERIAL NUMBER: 2318
CALIBRATION DATE: 25-Mar-25

SBE 63 OXYGEN TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

TA0 = 7.102895e-04 TA2 = 8.277984e-07
TA1 = 2.494732e-04 TA3 = 9.572452e-08

| BATH TEMP (° C) | INSTRUMENT OUTPUT(V) | INST TEMP (° C) | RESIDUAL (° C) |
|--------------------|-------------------------|--------------------|-------------------|
| 1.9999 | 1.11635 | 2.0001 | 0.00016 |
| 2.0000 | 1.11634 | 2.0004 | 0.00037 |
| 2.0001 | 1.11636 | 1.9998 | -0.00035 |
| 2.0002 | 1.11635 | 2.0001 | -0.00014 |
| 6.0000 | 0.99212 | 6.0001 | 0.00014 |
| 6.0001 | 0.99211 | 6.0005 | 0.00037 |
| 6.0002 | 0.99212 | 6.0001 | -0.00006 |
| 6.0004 | 0.99213 | 5.9998 | -0.00060 |
| 11.9998 | 0.82633 | 12.0001 | 0.00026 |
| 11.9998 | 0.82633 | 12.0001 | 0.00026 |
| 12.0002 | 0.82633 | 12.0001 | -0.00014 |
| 12.0002 | 0.82633 | 12.0001 | -0.00014 |
| 19.9998 | 0.64287 | 19.9998 | -0.00003 |
| 20.0000 | 0.64287 | 19.9998 | -0.00023 |
| 20.0000 | 0.64287 | 19.9998 | -0.00023 |
| 20.0001 | 0.64286 | 20.0003 | 0.00016 |
| 26.0000 | 0.53107 | 26.0000 | -0.00002 |
| 26.0000 | 0.53107 | 26.0000 | -0.00002 |
| 26.0001 | 0.53107 | 26.0000 | -0.00012 |
| 26.0001 | 0.53106 | 26.0006 | 0.00047 |
| 29.9996 | 0.46741 | 29.9992 | -0.00038 |
| 29.9999 | 0.46740 | 29.9999 | -0.00000 |
| 29.9999 | 0.46740 | 29.9999 | -0.00000 |
| 30.0003 | 0.46739 | 30.0006 | 0.00027 |

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

