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SENSOR SERIAL NUMBER: 2934  
CALIBRATION DATE: 29-Aug-23

# SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:  
Soc = 0.4027  
Voffset = -0.5108  
Tau20 = 1.16  
A = -4.3736e-003  
B = 1.8648e-004  
C = -2.2608e-006  
E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS  
D1 = 1.92634e-4  
D2 = -4.64803e-2  
H1 = -3.300000e-2  
H2 = 5.00000e+3  
H3 = 1.45000e+3

| BATH<br>OXYGEN (ml/l) | BATH<br>TEMPERATURE (° C) | BATH<br>SALINITY (PSU) | INSTRUMENT<br>OUTPUT (volts) | INSTRUMENT<br>OXYGEN (ml/l) | RESIDUAL<br>(ml/l) |
|-----------------------|---------------------------|------------------------|------------------------------|-----------------------------|--------------------|
| 1.24                  | 12.00                     | 0.00                   | 0.930                        | 1.24                        | -0.00              |
| 1.24                  | 6.00                      | 0.00                   | 0.871                        | 1.24                        | -0.00              |
| 1.25                  | 2.00                      | 0.00                   | 0.832                        | 1.24                        | -0.00              |
| 1.25                  | 20.00                     | 0.00                   | 1.013                        | 1.25                        | -0.00              |
| 1.27                  | 26.00                     | 0.00                   | 1.081                        | 1.27                        | 0.00               |
| 1.27                  | 30.00                     | 0.00                   | 1.124                        | 1.27                        | 0.00               |
| 4.10                  | 2.00                      | 0.00                   | 1.572                        | 4.10                        | 0.00               |
| 4.12                  | 6.00                      | 0.00                   | 1.709                        | 4.12                        | 0.00               |
| 4.13                  | 12.00                     | 0.00                   | 1.913                        | 4.13                        | 0.00               |
| 4.17                  | 20.00                     | 0.00                   | 2.190                        | 4.17                        | -0.00              |
| 4.21                  | 26.00                     | 0.00                   | 2.407                        | 4.22                        | 0.00               |
| 4.24                  | 30.00                     | 0.00                   | 2.551                        | 4.24                        | 0.00               |
| 6.99                  | 2.00                      | 0.00                   | 2.318                        | 6.99                        | -0.00              |
| 7.03                  | 6.00                      | 0.00                   | 2.557                        | 7.03                        | 0.00               |
| 7.12                  | 12.00                     | 0.00                   | 2.926                        | 7.12                        | -0.00              |
| 7.19                  | 20.00                     | 0.00                   | 3.407                        | 7.19                        | -0.00              |
| 7.31                  | 30.00                     | 0.00                   | 4.028                        | 7.31                        | -0.00              |
| 7.31                  | 26.00                     | 0.00                   | 3.801                        | 7.32                        | 0.00               |

V = instrument output (volts); T = temperature (°C); S = salinity (PSU); K = temperature (°K)

Oxsol(T,S) = oxygen saturation (ml/l); P = pressure (dbar)

Oxygen (ml/l) = Soc \* (V + Voffset) \* (1.0 + A \* T + B \* T<sup>2</sup> + C \* T<sup>3</sup>) \* Oxsol(T,S) \* exp(E \* P / K)

Residual (ml/l) = instrument oxygen - bath oxygen

