

# SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington, 98005 USA  
 Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0703  
 CALIBRATION DATE: 29-Feb-08p

## SBE 43 OXYGEN CALIBRATION DATA

### COEFFICIENTS

Soc = 0.4435

Boc = 0.0000

Voffset = -0.4949

TCor = 0.0022

PCor = 1.350e-04

| BATH OX<br>(ml/l) | BATH TEMP<br>ITS-90 | BATH SAL<br>PSU | INSTRUMENT<br>OUTPUT(VOLTS) | INSTRUMENT<br>OXYGEN(ml/l) | RESIDUAL<br>(ml/l) |
|-------------------|---------------------|-----------------|-----------------------------|----------------------------|--------------------|
| 1.28              | 2.00                | 0.01            | 0.791                       | 1.27                       | -0.00              |
| 1.29              | 26.00               | 0.02            | 0.981                       | 1.29                       | 0.00               |
| 1.29              | 20.00               | 0.02            | 0.933                       | 1.29                       | -0.00              |
| 1.30              | 30.00               | 0.02            | 1.019                       | 1.31                       | 0.01               |
| 1.30              | 6.00                | 0.01            | 0.829                       | 1.31                       | 0.00               |
| 1.31              | 12.00               | 0.02            | 0.876                       | 1.31                       | 0.00               |
| 4.19              | 20.00               | 0.02            | 1.911                       | 4.17                       | -0.02              |
| 4.19              | 26.00               | 0.02            | 2.068                       | 4.18                       | -0.01              |
| 4.20              | 12.00               | 0.02            | 1.719                       | 4.20                       | -0.00              |
| 4.21              | 30.00               | 0.02            | 2.187                       | 4.23                       | 0.02               |
| 4.22              | 2.00                | 0.01            | 1.473                       | 4.21                       | -0.01              |
| 4.24              | 6.00                | 0.01            | 1.577                       | 4.23                       | -0.01              |
| 6.61              | 30.00               | 0.02            | 3.149                       | 6.63                       | 0.02               |
| 6.74              | 20.00               | 0.02            | 2.777                       | 6.72                       | -0.03              |
| 6.75              | 26.00               | 0.02            | 3.027                       | 6.73                       | -0.01              |
| 6.79              | 12.00               | 0.02            | 2.477                       | 6.80                       | 0.01               |
| 6.86              | 6.00                | 0.01            | 2.255                       | 6.88                       | 0.02               |
| 6.86              | 2.00                | 0.01            | 2.090                       | 6.87                       | 0.01               |

oxygen (ml/l) = (Soc \* (V + Voffset)) \* exp(Tcor \* T) \* Oxsat(T,S) \* exp(PCor \* P)

V = voltage output from SBE43, T = temperature [deg C], S = salinity [PSU]

Oxsat(T,S) = oxygen saturation [ml/l], P = pressure [dbar], Residual = instrument oxygen - bath oxygen

