

# 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: 2003  
 CALIBRATION DATE: 31-Dec-08

SBE 37 TEMPERATURE CALIBRATION DATA  
 ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

a0 = -2.514067e-005  
 a1 = 2.851713e-004  
 a2 = -3.146154e-006  
 a3 = 1.777245e-007

| BATH TEMP<br>(ITS-90) | INSTRUMENT<br>OUTPUT | INST TEMP<br>(ITS-90) | RESIDUAL<br>(ITS-90) |
|-----------------------|----------------------|-----------------------|----------------------|
| 1.0000                | 635495.8             | 1.0000                | -0.0000              |
| 4.5000                | 543968.4             | 4.5000                | 0.0000               |
| 15.0000               | 347760.3             | 15.0000               | -0.0000              |
| 18.5000               | 301411.6             | 18.5000               | 0.0000               |
| 23.9999               | 242147.2             | 23.9999               | 0.0000               |
| 29.0000               | 199632.2             | 29.0000               | -0.0000              |
| 32.5000               | 174965.3             | 32.5000               | -0.0000              |

Temperature ITS-90 =  $1/[a0 + a1[\ln(n)] + a2[\ln^2(n)] + a3[\ln^3(n)]] - 273.15$  (°C)

Residual = instrument temperature - bath temperature

