

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 3777

CALIBRATION DATE: 23-Aug-10

SBE 37 PRESSURE CALIBRATION DATA

10153 psia S/N 6172

## COEFFICIENTS:

PA0 = 2.980473e+000

PA1 = 4.853047e-001

PA2 = -4.882018e-007

PTCA0 = -1.297398e+001

PTCA1 = 8.008668e-002

PTCA2 = 8.473591e-003

PTCB0 = 2.494788e+001

PTCB1 = -6.250000e-004

PTCB2 = 0.000000e+000

## PRESSURE SPAN CALIBRATION

| PRESSURE<br>PSIA | INST<br>OUTPUT | TEMP<br>ITS90 | COMPUTED<br>PRESSURE | ERROR<br>%FS |
|------------------|----------------|---------------|----------------------|--------------|
| 14.79            | 18.3           | 22.6          | 15.19                | 0.00         |
| 2015.10          | 4152.0         | 22.6          | 2013.97              | -0.01        |
| 4015.06          | 8323.5         | 22.6          | 4014.11              | -0.01        |
| 6014.86          | 12532.4        | 22.6          | 6014.93              | 0.00         |
| 8014.71          | 16776.8        | 22.7          | 8015.09              | 0.00         |
| 10014.91         | 21056.2        | 22.6          | 10013.92             | -0.01        |
| 8014.81          | 16778.1        | 22.6          | 8015.70              | 0.01         |
| 6014.74          | 12534.1        | 22.6          | 6015.73              | 0.01         |
| 4014.99          | 8325.4         | 22.6          | 4015.01              | 0.00         |
| 2015.03          | 4153.4         | 22.6          | 2014.65              | -0.00        |
| 14.78            | 18.9           | 22.6          | 15.48                | 0.01         |

## THERMAL CORRECTION

| TEMP<br>ITS90 | INST<br>OUTPUT | TEMP<br>ITS90 | SPAN<br>MV |
|---------------|----------------|---------------|------------|
| 32.50         | 24.65          | -5.00         | 24.95      |
| 29.00         | 22.60          | 35.00         | 24.93      |
| 24.00         | 19.94          |               |            |
| 18.50         | 17.51          |               |            |
| 15.00         | 16.19          |               |            |
| 4.50          | 13.68          |               |            |
| 1.00          | 13.20          |               |            |

$$x = \text{pressure output} - \text{PTCA0} - \text{PTCA1} * t - \text{PTCA2} * t^2$$

$$n = x * \text{PTCB0} / (\text{PTCB0} + \text{PTCB1} * t + \text{PTCB2} * t^2)$$

$$\text{pressure (psia)} = \text{PA0} + \text{PA1} * n + \text{PA2} * n^2$$

Date, Avg Delta P %FS

23-Aug-10 -0.00

