

# Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0073  
CALIBRATION DATE: 30-Dec-15

Glider APL CONDUCTIVITY CALIBRATION DATA  
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

## COEFFICIENTS:

g = -9.76951496e+000  
h = 1.08918934e+000  
i = 7.88938554e-004  
j = 5.78720188e-006

CPcor = -9.5700e-008 (nominal)  
CTcor = 3.2500e-006 (nominal)

| BATH TEMP<br>(° C) | BATH SAL<br>(PSU) | BATH COND<br>(S/m) | INSTRUMENT<br>OUTPUT (kHz) | INSTRUMENT<br>COND (S/m) | RESIDUAL<br>(S/m) |
|--------------------|-------------------|--------------------|----------------------------|--------------------------|-------------------|
| 22.0000            | 0.0000            | 0.00000            | 2.99161                    | 0.00000                  | 0.00000           |
| 1.0000             | 34.6967           | 2.96671            | 6.00365                    | 2.96672                  | 0.00000           |
| 4.5000             | 34.6766           | 3.27284            | 6.23176                    | 3.27282                  | -0.00002          |
| 15.0000            | 34.6339           | 4.25160            | 6.91052                    | 4.25164                  | 0.00005           |
| 18.5000            | 34.6247           | 4.59569            | 7.13365                    | 4.59568                  | -0.00000          |
| 24.0000            | 34.6149           | 5.15197            | 7.48023                    | 5.15192                  | -0.00005          |
| 29.0000            | 34.6100           | 5.67232            | 7.79044                    | 5.67234                  | 0.00002           |
| 32.5000            | 34.6078           | 6.04373            | 8.00437                    | 6.04368                  | -0.00005          |

f = Instrument Output (kHz)

t = temperature (°C); p = pressure (decibars);  $\delta$  = CTcor;  $\epsilon$  = CPcor;

Conductivity (S/m) =  $(g + h * f^2 + i * f^3 + j * f^4) / 10 (1 + \delta * t + \epsilon * p)$

Residual (Siemens/meter) = instrument conductivity - bath conductivity

