

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 4303
CALIBRATION DATE: 10-Dec-09

SBE 37 CONDUCTIVITY CALIBRATION DATA
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

COEFFICIENTS:

g = -1.018160e+000
h = 1.380316e-001
i = -1.172516e-004
j = 3.052481e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = -6.0412e-006

BATH TEMP (ITS-90)	BATH SAL (PSU)	BATH COND (Siemens/m)	INST FREQ (Hz)	INST COND (Siemens/m)	RESIDUAL (Siemens/m)
22.0000	0.0000	0.00000	2717.03	0.00000	0.00000
1.0000	34.8076	2.97529	5373.94	2.97531	0.00002
4.5000	34.7880	3.28232	5575.88	3.28231	-0.00001
15.0000	34.7451	4.26380	6176.53	4.26378	-0.00002
18.4999	34.7356	4.60881	6373.94	4.60877	-0.00004
24.0000	34.7245	5.16648	6680.46	5.16652	0.00005
29.0000	34.7173	5.68793	6954.49	5.68797	0.00004
32.5001	34.7134	6.06008	7143.40	6.06004	-0.00004

$$f = \text{INST FREQ} * \sqrt{1.0 + \text{WBOTC} * t} / 1000.0$$

$$\text{Conductivity} = (g + hf^2 + if^3 + jf^4) / (1 + \delta t + \epsilon p) \text{ Siemens/meter}$$

t = temperature[°C]; p = pressure[decibars]; δ = CTcor; ϵ = CPcor;

Residual = instrument conductivity - bath conductivity

