



Conductivity Calibration Certificate

RBRiegato³ C.T.D, Teledyne Webb Slocum, dry bay (1000dbar) s/n: 207975

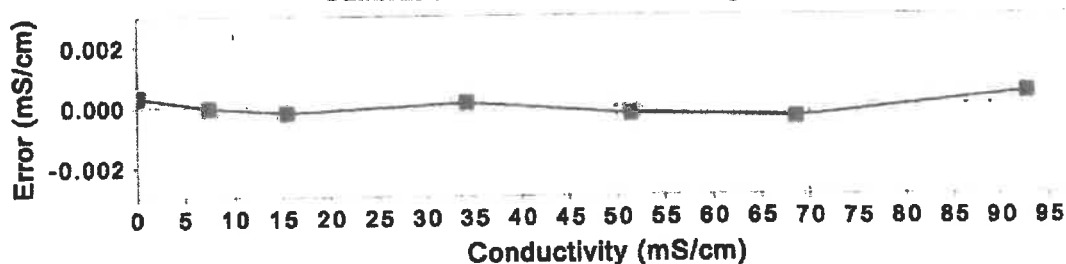
References: Autosal8400B#66289, MS-315#15506, SSW P164, RC#002

Reference Resistance (ohm)	Reference Conductivity (mS/cm)	Voltage Ratio, V	Measured Conductivity (mS/cm)	Calibration Error (mS/cm)	Coefficients
open	0.0000	-0.000107	0.0003	0.0003	C0: 20.67835E-3
694.042	7.4181	0.038943	7.4181	-0.0000	C1: 189.95688
331.926	15.5109	0.081545	15.5107	-0.0002	(X) C2: 1.001942
150.019	34.3189	0.180559	34.3190	0.0001	X0: 439.17712E-6
100.016	51.4769	0.270882	51.4766	-0.0003	X1: 16.191501E-6
75.023	68.6251	0.361156	68.6247	-0.0004	X2: 0.0
55.520	92.7329	0.488072	92.7333	0.0004	X3: 0.0
					X4: 0.0
					X5: 14.877615
					X6: 10
Bath	Voltage Ratio	Temperature (ITS-90)	Salinity (PSS-78)	Conductivity (mS/cm)	
T15835	0.2251495	14.87761	34.9928	42.7894	
T25835	0.2780405	24.77027	34.9943	52.8236	

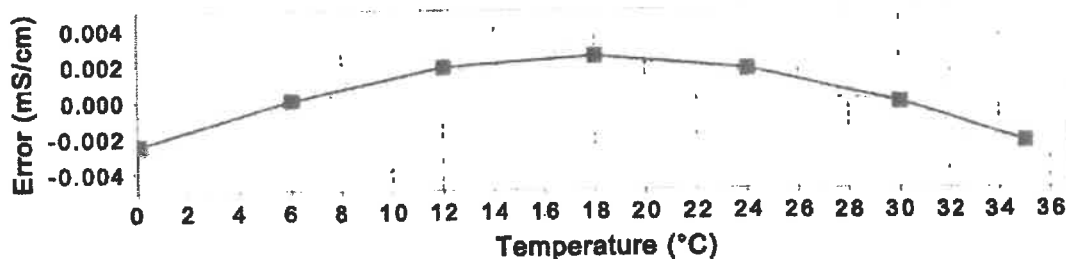
Cell Constant @T15835 = 5.14848 1/cm

$$C_c = \frac{C_0 + C_1 * C_2 * V - X_0 * (T - X_5)}{1 + X_1 * (T - X_5) + X_2 * (P - X_6) + X_3 * (P - X_6)^2 + X_4 * (P - X_6)^3}$$

Calibration error vs. Conductivity



Calibration error vs. Temperature



Calibration Date: 2021-08-19
Issue Date: 2021-08-19
File Name: 207975_20210819_1715C.rsk

Operator:

jwang

Approver:

kmalorny

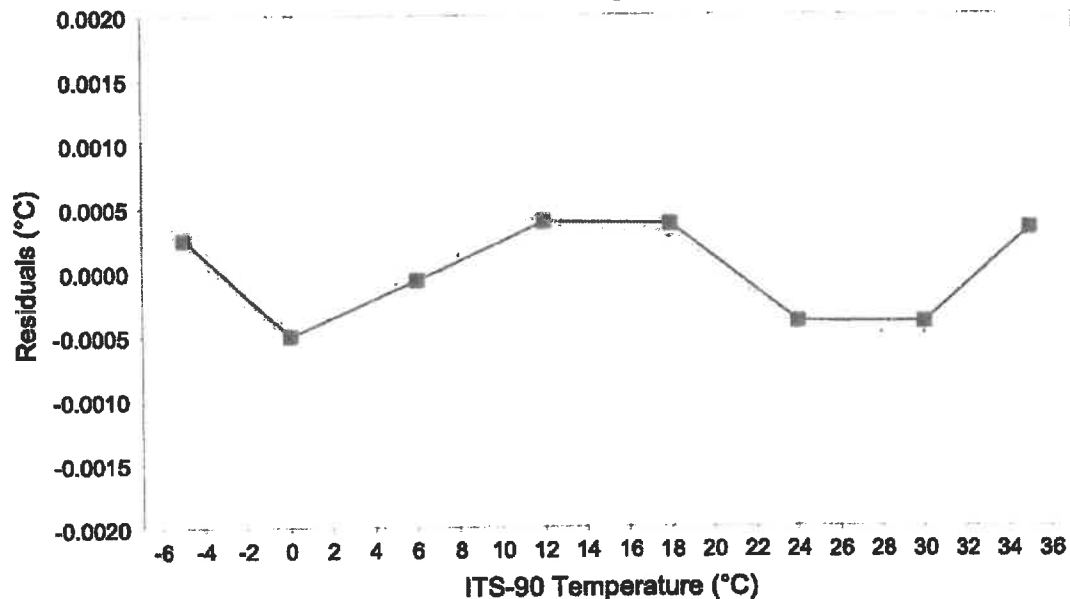


Temperature Calibration Certificate

Logger ID: RBRlegato³ Serial No: 207975 Channel No: 2

Reference Temperature, ITS-90	Voltage ratio, V	Measured Temperature, ITS-90	Calibration error	Coefficients
-4.94847	0.687946	-4.94822	0.00026	C0: 3.5256033E-3
0.05090	0.628595	0.05040	-0.00050	C1: -254.68363E-6
6.04798	0.554716	6.04791	-0.00006	C2: 2.4773692E-6
12.04477	0.481116	12.04517	0.00039	C3: -99.149815E-9
18.03538	0.410960	18.03575	0.00037	
24.03039	0.346478	24.03000	-0.00039	
30.03218	0.289074	30.03178	-0.00040	
35.02841	0.247161	35.02875	0.00034	

Residuals vs. Temperature



Calibration Date: 2021-08-12
Issue Date: 2021-08-13
Calibration ID: 48282

Operator: 
dluong

Approver: 
jwang

RBR

Pressure Calibration Certificate

RBRlegato® C.T.D, Teledyne Webb Slocum, dry bay (1000dbar) s/n: 207975

Instrument rating: 1,000 dbar s/n: N009858

Nominal accuracy: 0.05%FS (0.5 dbar)

Reference Instrument: Mensor CPC6050 s/n: 41000CAM

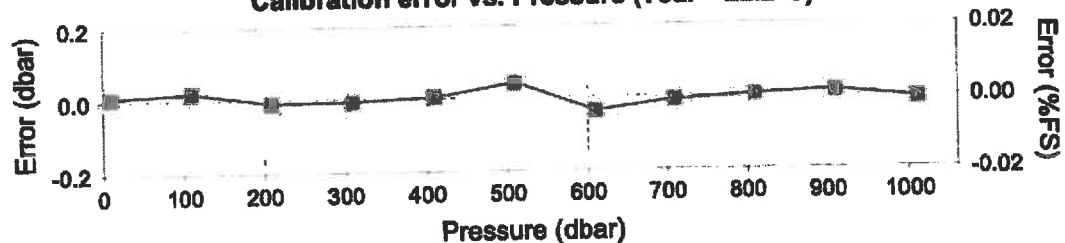
Applied pressure, P _{app} (dbar)	Voltage ratio, V	Measured pressure, P _c (dbar)	Calibration error (dbar)	Coefficients
10.118	0.022187	10.1287	0.0104	C0: -41.794617
110.000	0.064648	110.0215	0.0215	C1: 2.349637E3
209.999	0.107092	209.9914	-0.0076	C2: 37.66334
309.997	0.149507	309.9915	-0.0055	C3: -31.705196
409.999	0.191891	410.0032	0.0042	X0: 10.1183
509.999	0.234256	510.0409	0.0419	X1: 102.54835E-3
609.998	0.276547	609.9603	-0.0377	X2: 57.502715E-6
709.997	0.318868	709.9883	-0.0087	X3: -209.46332E-9
810.004	0.361172	810.0074	0.0034	X4: -108.39445E-6
910.001	0.403467	910.0146	0.0136	X5: 22.182997
1010.000	0.445750	1009.9928	-0.0072	

$$P_c = X_0 + \frac{P_m - X_0 - X_1(T - X_5) - X_2(T - X_5)^2 - X_3(T - X_5)^3}{1 + X_4(T - X_5)}$$

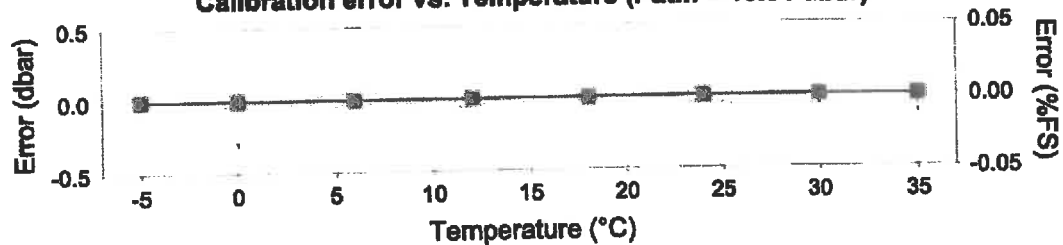
Head (mm) = 239

$$P_m = C_0 + C_1V + C_2V^2 + C_3V^3$$

Calibration error vs. Pressure (Tcal = 22.2°C)



Calibration error vs. Temperature (Patm = 10.01 dbar)



Calibration Date: 2021-08-18

Issue Date: 2021-08-18

File Name: 207975_20210818_1222P.rsk

Operator:

Duong
duong

Approver:

Kmalorny
kmalorny