



Sea-Bird Electronics, Inc.

13431 NE 20th St. Bellevue, Washington 98005 USA
Website: <http://www.seabird.com>

Phone: (425) 643-9866
FAX: (425) 643-9954
Email: seabird@seabird.com

SBE Pressure Test Certificate

Test Date: 2/17/2011 Description SBE-43 DO Sensor

Job Number: 63036 Customer Name NOAA/PMC

SBE Sensor Information:

Model Number: 43
Serial Number: 2100

Pressure Sensor Information:

Sensor Type: None
Sensor Serial Number: None
Sensor Rating: 0

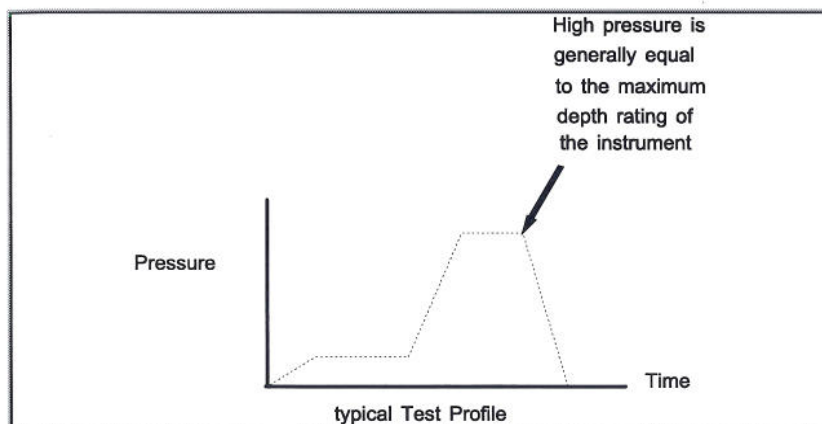
Pressure Test Protocol:

Low Pressure Test: 50 PSI Held For: 15 Minutes

High Pressure Test: 10000 PSI Held For: 30 Minutes

Passed Test:

Tested By: gw



SEA-BIRD ELECTRONICS, INC.

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

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

SENSOR SERIAL NUMBER: 2100
CALIBRATION DATE: 31-Mar-11p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.3576

Voffset = -0.6765

Tau20 = 1.37

A = -2.1884e-003

B = 7.4275e-005

C = -1.6507e-006

E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4 H1 = -3.30000e-2

D2 = -4.64803e-2 H2 = 5.00000e+3

H3 = 1.45000e+3

BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(VOLTS)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.20	6.00	0.00	1.069	1.21	0.01
1.21	12.00	0.00	1.137	1.22	0.01
1.22	2.00	0.00	1.033	1.23	0.01
1.24	20.00	0.00	1.238	1.24	0.00
1.26	26.00	0.00	1.320	1.26	0.00
1.28	30.00	0.00	1.387	1.29	0.01
4.10	2.00	0.00	1.859	4.08	-0.03
4.12	12.00	0.00	2.229	4.11	-0.01
4.14	20.00	0.00	2.542	4.13	-0.01
4.14	6.00	0.00	2.015	4.13	-0.02
4.15	26.00	0.00	2.795	4.15	-0.00
4.17	30.00	0.00	2.978	4.17	-0.01
6.57	30.00	0.00	4.308	6.57	-0.00
6.70	26.00	0.00	4.105	6.71	0.01
6.80	20.00	0.00	3.748	6.80	-0.00
6.80	12.00	0.00	3.249	6.81	0.01
6.85	6.00	0.00	2.903	6.86	0.01
6.89	2.00	0.00	2.680	6.90	0.01

$$\text{Oxygen (ml/l)} = \text{Soc} * (\text{V} + \text{Voffset}) * (1.0 + \text{A} * \text{T} + \text{B} * \text{T}^2 + \text{C} * \text{T}^3) * \text{OxSol}(\text{T}, \text{S}) * \exp(\text{E} * \text{P} / \text{K})$$

V = voltage output from SBE43, T = temperature [deg C], S = salinity [PSU] K = temperature [deg K]

OxSol(T,S) = oxygen saturation [ml/l], P = pressure [dbar], Residual = instrument oxygen - bath oxygen

Date, Deita Ox (ml/l)

● 31-Mar-11p 1.0000

