

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: 2040
CALIBRATION DATE: 16-Mar-11p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.4901

Voffset = -0.4989

Tau20 = 1.57

A = -2.8989e-003

B = 1.6830e-004

C = -2.7076e-006

E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

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

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

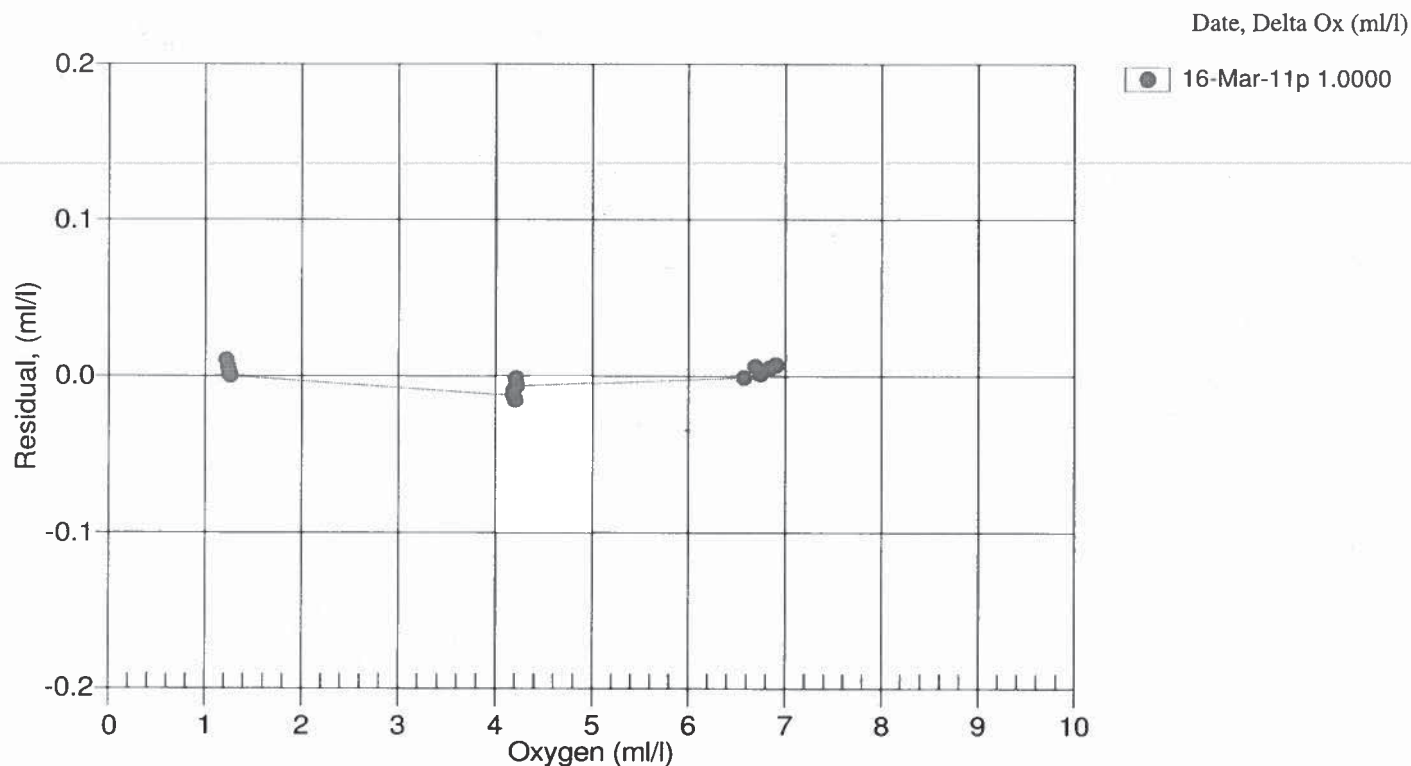
H3 = 1.45000e+3

BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(VOLTS)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.22	2.00	0.00	0.759	1.23	0.01
1.23	6.00	0.00	0.793	1.24	0.01
1.24	12.00	0.00	0.842	1.25	0.00
1.25	20.00	0.00	0.904	1.25	0.00
1.26	26.00	0.00	0.956	1.26	0.00
1.26	30.00	0.00	0.990	1.26	0.00
4.18	6.00	0.00	1.487	4.17	-0.01
4.19	12.00	0.00	1.648	4.18	-0.01
4.20	2.00	0.00	1.387	4.19	-0.02
4.21	30.00	0.00	2.135	4.20	-0.00
4.21	26.00	0.00	2.025	4.21	-0.00
4.22	20.00	0.00	1.866	4.21	-0.01
6.58	30.00	0.00	3.057	6.57	-0.00
6.69	26.00	0.00	2.928	6.70	0.01
6.75	20.00	0.00	2.689	6.75	0.00
6.85	12.00	0.00	2.382	6.85	0.01
6.90	6.00	0.00	2.137	6.91	0.01
6.91	2.00	0.00	1.965	6.92	0.01

Oxygen (ml/l) = Soc * (V + Voffset) * (1.0 + A * T + B * T² + C * T³) * OxSol(T,S) * exp(E * P / 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





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Website: <http://www.seabird.com>

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FAX: (425) 643-9954

Email: seabird@seabird.com

SBE Pressure Test Certificate

Test Date: 11/24/2010 Description SBE-43 DO Sensor

Job Number: 61831

Customer Name NOAA/AOML

SBE Sensor Information:

Model Number: 43

Serial Number: 2040

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

