

SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington, 98005 USA

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

SENSOR SERIAL NUMBER: 0130
CALIBRATION DATE: 16-Dec-09p

SBE 43F OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 2.2755e-004 (DI) A = 6.0087e-003
Foffset = -808.99 B = 1.1237e-004
Tau20 = 9.70 C = 3.0805e-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(Hz)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.30	30.00	0.02	1602.48	1.30	0.00
1.30	26.00	0.01	1593.76	1.30	0.00
1.30	2.00	0.00	1386.92	1.29	-0.02
1.31	20.00	0.01	1565.56	1.30	-0.01
1.31	6.00	0.01	1439.68	1.30	-0.01
1.32	12.00	0.01	1504.68	1.31	-0.01
4.25	30.00	0.02	3400.21	4.26	0.01
4.26	26.00	0.01	3384.69	4.28	0.02
4.28	20.00	0.01	3293.70	4.28	0.00
4.28	2.00	0.00	2740.09	4.31	0.03
4.29	6.00	0.01	2902.25	4.32	0.03
4.29	12.00	0.01	3104.53	4.31	0.01
6.71	30.00	0.02	4885.01	6.69	-0.02
6.75	26.00	0.01	4882.38	6.77	0.01
6.81	20.00	0.01	4753.07	6.79	-0.02
6.83	12.00	0.01	4440.22	6.81	-0.01
6.86	2.00	0.00	3875.86	6.84	-0.02
6.86	6.00	0.01	4135.05	6.86	-0.00

Oxygen (ml/l) = Soc * (F + Foffset) * (1.0 + A * T + B * T² + C * T³) * OxSol(T,S) * exp(E * P / K)
 F = frequency output from SBE43F, 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

