

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: 0179
CALIBRATION DATE: 21-Oct-09p

SBE 43F OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 3.1068e-004 (DI) A = -3.0784e-003
Foffset = -778.88 B = 1.4908e-004
Tau20 = 1.86 C = -2.4872e-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)
1.28	2.00	0.00	1207.13	1.28	0.00
1.28	30.00	0.01	1581.33	1.29	0.00
1.28	26.00	0.01	1524.52	1.28	0.00
1.29	20.00	0.01	1447.52	1.29	0.00
1.29	6.00	0.00	1263.68	1.29	0.00
1.29	12.00	0.01	1344.02	1.30	0.00
4.19	26.00	0.01	3210.06	4.19	-0.00
4.20	30.00	0.01	3400.35	4.20	0.00
4.20	2.00	0.00	2179.51	4.19	-0.01
4.20	20.00	0.01	2949.19	4.20	-0.00
4.21	12.00	0.01	2612.59	4.21	-0.00
4.22	6.00	0.00	2356.27	4.21	-0.01
6.61	30.00	0.01	4902.67	6.60	-0.00
6.64	26.00	0.01	4636.45	6.65	0.00
6.68	20.00	0.01	4235.72	6.68	0.00
6.74	12.00	0.01	3715.71	6.74	0.00
6.75	6.00	0.00	3310.07	6.76	0.00
6.76	2.00	0.00	3041.51	6.76	0.01

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

