

Appendix 1. Water Parameters Collected

Investigated parameters at each station and depth level [m] of the BaySys <i>Des Groseilliers</i> field work between September 26 and October 8, 2016																	
Date	Station	Bottom depth [m]	CTD (Sea-bird)	CTD (Idronaut)	SPM	CDOM	O ₁₈	Salinity	Vertical light profile	a _p	HPLC	POC/N	Lugol	Flow cam	NO ₃ , NO ₂ , Si, PO ₄	NH ₄	Chl <i>a</i>
09/26/16	AN01	107	x	x	5, 30	5, 30, 100	5, 30, 100	5, 30, 100	0 - 30	5, 30, 100	5, 30, 100	5, 30, 100	-	-	5, 30, 100	5, 30, 100	5, 30, 100
09/27/16	AN04	60	x	x	1, 20, 50	1, 20, 50	1, 20, 50	1, 20, 50	0 - 30	1, 20, 50	1, 20, 50	1, 20, 50	1, 20, 50	1, 20, 50	1, 20, 50	1, 20, 50	1, 20, 50
	NE02	45	x	x	1, 20	1, 20, 35	1, 20, 35	1, 20, 35	0 - 30	1, 20, 35	1, 20, 35	1, 20, 35	1, 20, 35	1, 20, 35	1, 20, 35	1, 20, 35	1, 20, 35
09/28/16	NE03	55	x	-	1, 20, 50	1, 20, 50	1, 20, 50	1, 10, 20, 30, 40, 50	0 - 30	1, 20, 50	1, 20, 50	1, 20, 50	1, 20, 50	1, 20, 50	1, 10, 20, 30, 40, 50	1, 10, 20, 30, 40, 50	1, 10, 20, 30, 40, 50
09/29/16	NE04	11	-	x	-	-	-	-	0 - 30	-	-	-	-	-	-	-	-
	B3	3.5	-	x	1	1	1	1	-	1	1	1	1	1	1	1	1
	B5	5.8	-	x	1	1	1	1	-	1	1	1	1	1	1	1	1
	M6	23	-	x	1, 20	1, 20	1, 20	1, 20	-	1, 20	1, 20	1, 20	1, 20	1, 20	1, 10, 20	1, 10, 20	1, 10, 20
	B7	12	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
	B8	5.7	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
	B11	12	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
	B12	6.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09/30/16	SE01	63	x	x	1, 15, 56	1, 15, 56	1, 15, 56	1, 15, 56	0 - 30	1, 15, 56	1, 15, 56	1, 15, 56	1, 15, 56	1, 15, 56	1, 15, 25, 35, 45, 56	1, 15, 25, 35, 45, 56	1, 15, 25, 35, 45, 56
	SR01	-	-	-	1	1	1	1	-	-	-	1	-	-	1	1	1
	WE01	110	x	x	2, 40, 100	2, 40, 100	2, 40, 100	2, 40, 100	0 - 30	2, 40, 100	2, 40, 100	2, 40, 100	2, 40, 100	2, 40, 100	2, 15, 40, 70, 100	2, 15, 40, 70, 100	2, 15, 40, 70, 100
	WR01	-	-	-	1	1	1	1	-	-	-	1	-	-	1	1	1
10/01/16	JB02	78	x	x	1, 25, 65	1, 25, 65	1, 25, 65	1, 25, 65	0 - 30	1, 25, 65	1, 25, 65	1, 25, 65	1, 25, 65	1, 25, 65	1, 15, 25, 35, 45, 65	1, 15, 25, 35, 45, 65	1, 15, 25, 35, 45, 65
	JB01	50	x	-	1	1	1	1	-	-	-	1	-	-	1	-	-
	JB00	46	x	-	2, 10, 37	2, 10, 37	2, 10, 37	2, 10, 37	0 - 30	2, 10, 37	2, 10, 37	2, 10, 37	2, 10, 37	2, 10, 37	1, 10, 20, 30, 37	1, 10, 20, 30, 37	1, 10, 20, 30, 37

Appendix 2. CCGS Des Groseilliers ship science log book

Date	Station Name	Latitude (N) DD MM.SS	Longitude (W) DD MM.SS	Device deployed	Time submerging (UTC)	Water depth (m)	Time surfaced (UTC)	Air Temp (deg.C)	True wind (direction-deg)	True wind (speed, kn)	Sea state (m)	Comments
26-Sep	AN01	59 58.309	091 58.495	Acoustic release	14:45	98	14:54	5.4	160	11	2.5	Attempted AN retrieval
26-Sep	AN01	59 58.244	091 58.506	Acoustic release	14:57	96	15:03	5.5	160	11	2.5	
26-Sep	AN01	59 58.274	091 58.395	Acoustic release	15:06	96	15:15	5.5	160	11	2.5	
26-Sep	AN01	59 56.550	091 58.318	Light profiler	18:15	105	18:19	5.4	180	5	3	
26-Sep	AN01	59 56.592	091 58.535	Light profiler	18:20	100	18:24	5.4	180	5	3	
26-Sep	AN01	59 58.156	091 57.144	Mooring	21:22	112	na	5.2	270	3	2.5	
26-Sep	AN01	59 58.333	091 56.874	Rosette	23:43	107	23:46	5.3	350	14	2	Attempt 1
26-Sep	AN01	59 58.341	091 56.833	Rosette	23:50	107	0:01	5.3	350	14	2	Attempt 2
26-Sep	AN01	59 58.318	091 57.058	Rosette (not completed)	0:25	100	0:32	5.2	0	13	1.5	Attempt 3
26-Sep	AN01	59 58.304	091 57.069	Idronaut	0:37	100	0:48	5.4	0	15	1.5	
26-Sep	AN01	59 58.269	091 57.089	Niskin sampling	0:51	100	0:58	5.3	0	15	1.5	
27-Sep	AN04	57 40.327	091 36.293	Light profiler	15:07	54	15:21	6.5	40	14	1.5	
27-Sep	AN04	57 40.352	091 36.346	Light profiler	15:27	53	15:37	6.5	45	14	1.5	
27-Sep	AN04	57 40.258	091 36.158	Rosette	16:30	60	16:47	6.7	350	15	2	
27-Sep	BS03	Cancelled	Cancelled					7.2	40	15	2.5	Transiting over night
27-Sep	BS04	57 30.192	091 47.503	Rosette	19:45	44	19:49	6.8	50	15	2.5	
27-Sep	BS04	57 30.391	091 46.981	Rosette	20:08	45	20:19	6.7	45	12	2	
27-Sep	BS04	57 30.196	091 47.233	Light profiler	20:36	45	20:42	6.7	75	13	2	
27-Sep	BS04	57 30.143	091 47.410	Light profiler	20:48	45	20:59	6.7	80	13	2	
27-Sep	BS04	57 30.007	091 48.095	Mooring (wheel)	23:24	46	na	7.4	90	8	1.5	
27-Sep	BS04	57 30.030	091 48.402	Mooring (ADCP)	23:23	46	na					Same unit
27-Sep	BS04	57 30.206	091 47.213	Niskin sampling	23:43	47	23:44	7.3	90	10	1.5	Failed- too much current
27-Sep	BS04	57 30.122	091 47.329	Niskin sampling	23:49	47	23:53	7.3	90	10	1.5	Failed- too much current
28-Sep	BS06	57 49.765	090 53.441	Rosette	20:30	57	20:43	8.6	230	20	1.5	
28-Sep	BS06	57 50.007	090 53.503	Rosette	20:51	55	20:53	8.6	230	20	1	

28-Sep	BS06	57 49.781	090 52.777	Mooring (tube)	22:31	54	na	9.4	250	15	1	Position of tube
28-Sep	BS06	57 49.762	090 52.888	Mooring (train wheel)		54	na	9.4	250	15	1	Train wheel
28-Sep	BS06	57 49.775	090 53.498	Light profiler	22:55	56	23:06	9.2	270	13	1	
28-Sep	BS06	57 49.748	090 53.325	Rosette	23:10	59	23:24	9.2	270	12	1	
29-Sep	BS07	57 15.948	092 08.901	Light profiler	15:29	11	15:37	8.2	215	12	0.5	
29-Sep	M6 (drop 1)	57 08.034	092 24.545	Mooring (ADCP)	15:51	29.7	na		225	15		Helicopter
29-Sep	M6 (drop 2)	57 07.923	092 24.704	Mooring (train wheel)	17:51	29	na		225	20		Helicopter
30-Sep	BS08	56 45.501	086 58.336	Light profiler	13:50	62	14:04	8.3	230	12	1	
30-Sep	S01	55 57.650	087 42.440	River sample								Severn River-helicopter
30-Sep	BS08	56 45.358	086 58.409	Rosette	15:17	63	15:36	8.5	250	10	1	
30-Sep	W01	55 12.890	085 14.460	River sample								Winisk-helicopter
30-Sep	BS09	56 20.026	085 29.975	Rosette	19:46	110	20:04	8.4	240	15	1	
30-Sep	BS09	56 20.153	085 29.764	Light profiler	20:12	109	20:14	9.8	250	14	1	
30-Sep	BS09	56 20.178	085 29.689	Light profiler	20:18	108	20:38	9.8	250	14	1	
01-Oct	JB02	54 41.166	080 08.935	Rosette	14:27	78	14:45	8.6	180	10	1	
01-Oct	JB02	54 41.130	80 08.795	Light profiler	14:56	73	15:15	8.1	170	5	1	
01-Oct	JB02	54 40.973	80 11.226	Mooring	17:03	101	na	9	220	10	1	
01-Oct	JB01	54 40.682	079 57.490	Rosette	18:14	50	18:26	8.6	180	10	0.5	
01-Oct	JB01	54 40.635	079 57.464	Rosette	18:39	51	18:42	8.5	180	10	0.5	
01-Oct	JB00	54 38.450	079 51.690	Rosette	19:16	46	19:29	8.9	190	15	1	
01-Oct	JB00	54 38.435	079 51.678	Light profiler	19:39	46	19:47	8.8	190	15	0.5	
01-Oct	JB03	Cancelled	Cancelled	Rosette								
02-Oct	JB03	54 41.616	80 30.660	Rosette	10:21	111	10:31	6	45	20	2	
02-Oct	JB04	54 42.173	80 32.920	Rosette	11:11	107	11:21	6	30	24	2	
02-Oct	JB05	54 42.609	80 46.623	Rosette	12:20	97	12:39	6.1	35	25	2	
02-Oct	JB06	54 43.314	80 59.983	Rosette	13:29	77	13:41	6.1	15	22	2	
02-Oct	JB07	54 44.080	81 13.754	Rosette	14:26	63	14:34	5.9	20	22	2	
02-Oct	JB08	54 45.391	81 27.331	Rosette	16:59	45	17:08	4.9	0	25	3	
02-Oct	JB09	54 45.640	81 41.833	Rosette	17:55	33	18:09	5.8	35	23	3	
02-Oct	JB95	54 46.990	81 47.812	Rosette	18:45	27	18:54	6.8	35	22	2	
02-Oct	JB85	54 45.245	81 34.985	Rosette	19:48	37	19:57	5.2	30	20	2.5	
03-Oct	JB10	55 09.341	82 02.430	Rosette	10:20	24	10:25	5	160	13	1	

03-Oct	JB11	55 13.880	81 50.712	Rosette	11:18	47	11:27	5.5	170	18	1	
03-Oct	JB12	55 18.778	81 39.786	Rosette	12:22	64	12:32	5	170	20	1.5	
03-Oct	JB13	55 22.999	81 05.937	Rosette	14:16	95	14:32	5.7	175	18	1.5	
03-Oct	JB14	55 27.005	80 33.230	Rosette	16:23	105	16:36	6.4	170	25	1.5	
03-Oct	JB14	55 27.229	80 33.137	Light profiler	16:42	102	16:51	6.5	180	23	1.5-2	
03-Oct	JB15	55 17.486	79 24.114	Rosette	21:46	170	22:07	8.4	200	27	2.5	
03-Oct	JB15	55 17.412	79 23.919	Light profiler	22:13	166	22:21	8.4	200	27	2.5	
04-Oct	KU02	55 18.553	77 51.268	Rosette	10:20	97	10:37	10.7	210	19	1	
04-Oct	KU01	55 17.247	77 48.325	Rosette	11:18	43	11:24	1.2	225		1	
06-Oct	CI01	62 27.777	80 20.109	Rosette	19:00	194	20:12	-0.6	25	15	2	
06-Oct	CI01	62 27.650	80 20.136	Light Profiler	20:17	191	-	-0.6	10	18	1	Cancelled
06-Oct	WI01	62 27.512	80 20.282	Light profiler	20:24	191	20:30	-0.6	10	18	1	
07-Oct	CI03	63 16.133	83 45.538	Idronaut (CTD)	14:10	108	14:15	-1.6	320	6	0.5	
08-Oct	CI02	62 43.939	81 42.182	Rosette	11:00	106	11:19	-0.5	20	16	1	
08-Oct	MI02	62 33.974	80 49.817	Rosette	13:34	208	13:56	-0.8	25	20	1	
08-Oct	MI02	62 14.833	78 43.434	Rosette	18:51	125	19:10	-0.5	15	20	1	
08-Oct	MI01	62 14.179	78 43.496	Light Profiler	19:16	131	19:24	-0.5	20	18	1	
08-Oct	MI01	62 14.749	78 26.032	Rosette	20:10	68	20:24	-0.2	20	18	2	
08-Oct	MI01	62 14.510	78 26.320	Light Profiler	20:31	70	20:38	-0.5	20	18	1	
09-Oct	NI01	63 15.603	78 21.240	Rosette CTD only	18:17	50	18:24	0	310	15	1	