

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
11/08/2013	DAR_HC1	MWT	144	BE	15:14	70	53.5378	123	2.5098	477		Lat/Longs recorded approximately ~3mins. into shooting.
				BO	15:22	70	53.3662	123	0.5843	482		5.5 knots
				EN	15:32	70	53.6416	122	56.1400	398		MWT_19
				OW	16:02	70	53.6535	122	56.0455	472		
03-08-2017	KUG_01	ROS	1	BE	14:14	70	0.6820	133	50.8030	24		Samples 1-4 at 3 depths
				BO	14:21	70	0.6530	133	50.7310			SPAR not working
				EN	14:28	70	0.6130	133	50.5810			
03-08-2017	KUG_01	BON	2	BE	14:41	70	0.6630	133	50.4410	24		within 5m of bottom = 35m line out
				EN	14:58	70	1.1470	133	50.2810	25		15 minutes tow, target speed 2.0 knots
03-08-2017	KUG_01	BOX	3	BE	15:20	70	0.6940	133	50.7890	24		Box core attempt #1
				BO	15:20	70	0.6940	133	50.7860	25		Success
				EN	15:21	70	0.6910	133	50.7820	24		
03-08-2017	KUG_01	BOX	4	BE	15:43	70	0.6020	133	50.5490	24		Box core attempts #2; success
				BO	15:43	70	0.6020	133	50.5440	24		
				EN	15:44	70	0.6010	133	50.5310	24		
03-08-2017	KUG_01a	BBT	5	BE	18:15	70	15.4300	134	5.4800	45		Found flat bottom at 45m
				BO	18:22	70	15.2500	134	4.4000	45		same location as during 2014
				UP	18:32	70	15.0700	134	3.6100	45		
				EN	18:35	70	15.0100	134	3.3700	45		
03-08-2017	KUG_01a	BBT	6	BE	18:47	70	14.7500	134	1.9300	43		Towed in same location
				BO	18:54	70	14.9500	134	2.9900	44		
				UP	19:04	70	15.1400	134	3.8200	45		
				EN	19:07	70	15.1800	134	4.0500	45		
03-08-2017	KUG_01a	W2A	7	BE	19:37	70	15.4300	134	5.1100	45		Door left on mid-water hookup (not intentional)
				BO	19:43	70	15.1800	134	3.8700	45		
				UP	20:03	70	14.6900	134	1.6400	42		
				EN	20:05	70	14.6800	134	1.6400	44		

Event Log

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03-08-2017	KUG_01a	ROS	8	BE	20:42	70	15.1460	134	3.1070	44	42.5	using Rosette (SBT-9 +1189) as this will match the fish trawls more closely that the first cast at 25 or at least see if different
				BO	20:48	70	15.1250	134	3.2800			alt=1.3
04-08-2017	KUG_02	ROS	9	BE	13:19	70	50.9110	134	40.4690	80		73.62+3.4 alt
				BO	13:25	70	50.8430	134	40.4810	79	74	
				EN	13:43	70	50.6110	134	40.4620			
04-08-2017	KUG_02	MPS	10	BE	14:45	70	50.6500	134	40.2040		79	surface
				BO	14:52	70	50.6010	134	40.1620	70	79	
				EN	14:54	70	50.5580	134	40.1520		79	
04-08-2017	KUG_02	BOX	11	BE	15:14	70	50.2900	134	40.2000	78	78	Box core attempt #1; success
				BO	15:14	70	50.2700	134	40.2000	78		
				EN	15:15	70	50.2600	134	40.1900	78		
04-08-2017	KUG_02	BOX	12	BE	15:37	70	50.9200	134	40.2800	79		Box core attempts# 2; success
				BO	15:38	70	50.9100	134	40.2900	79	79	
				EN	15:39	70	50.9000	134	40.2900	79		
04-08-2017	KUG_02	BON	13	BE	15:50	70	50.8400	134	40.1000	80	70	15 minutes tow. SOG= 2 knots
				EN	16:07	70	51.3900	134	39.8000	82		
04-08-2017	KUG_02	BBT	14	BE	16:22	70	50.8900	134	41.6200	80		Verify bottom time within RBR
				BO	16:30	70	51.0100	134	40.2100	80	80	
				EN	16:40	70	51.0600	134	39.2700	81		
04-08-2017	KUG_02	BBT	15	BE	16:53	70	51.1600	134	37.2200	79		
				BO	17:00	70	51.0600	134	38.3800	80	80	
				EN	17:10	70	50.9700	134	39.3800	80		
04-08-2017	KUG_02	BBT	16	BE	17:30	70	50.8900	134	41.7000	79		N 20-25 Knots
				BO	17:34	70	50.9500	134	40.8300	81	81	
				EN	17:54	70	51.0700	134	37.8700	80		
04-08-2017	KUG_03	ROS	17	BE	19:21	70	56.0360	134	44.9880	222		
				BO	19:37	70	55.9020	134	44.8810	208	200	
				EN	19:42	70	55.8590	134	44.8360	200		
04-08-2017	KUG_03	ROS	18	BE	20:19	70	55.9600	134	45.3360	222		Some snap while ROS sitting near surface. Repositioned .25m for second
				BO	20:27	70	55.9200	134	46.2450	216	150	

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				EN	20:42	70	58.8080	134	45.0070	200		
04-08-2017	KUG_03	MPS	19	BE	20:53	70	56.0830	134	45.3360	229		Attempted to capture target layer 150m in echogram screen capture:
				BO	21:00	70	56.0330	134	45.2580	225	220	D20170804_T204929_Image.jpg
				EN	21:07	70	55.9780	134	45.1370	219		
04-08-2017	KUG_03	BON	20	BE	21:18	70	55.9880	134	44.6819	214	200	Max depth= ~200m
				EN	21:32	70	56.2730	134	43.4870	220		
04-08-2017	KUG_03	BOX	21	BE	21:53	70	56.1070	134	44.5320	220		Success
				BO	21:55	70	56.0910	134	44.5010	219	219	
				EN	21:58	70	56.0660	134	44.4160	215		
04-08-2017	KUG_03	BOX	22	BE	22:07	70	55.9970	134	44.2580	205		Second box core. Success
				BO	22:10	70	55.9790	134	44.1990	202	202	
				EN	22:13	70	55.9560	134	44.1560	200		
04-08-2017	KUG_03	BBT	23	BE	22:31	70	55.6910	134	46.6660	218		
				BO	22:50	70	56.0990	134	43.7450	208	208	
				EN	23:00	70	56.2210	134	42.8910	206		
04-08-2017	KUG_03	BBT	24	BE	23:10	70	56.4650	134	42.4070	219		
				BO	23:20	70	56.5940	134	40.9920	210	210	
				EN	23:30	70	56.6790	134	40.0730	204		
04-08-2017	KUG_03	W2A	25	BE	23:47	70	56.8270	134	39.2670	205		
				BO	23:54	70	56.6030	134	40.8140	210		
05-08-2017				EN	0:14	70	56.1290	134	43.4220	205		
05-08-2017	KUG_04	ROS	26	BE	13:26	70	58.9720	134	48.0000	363		
				BO	13:38	70	58.9860	134	47.8600		348.6	(+4,9 alt)=353m total depth vs. Sounder 362m
				EN	13:54	70	58.9970	134	47.7360			
05-08-2017	KUG_04	ROSI	27	BE	14:35	70	59.0460	134	47.5500	359		
				BO	-	-	-	-	-		100	
				EN	14:57	70	59.0760	134	47.5780	359		
05-08-2017	KUG_04	MPS	28	BE	15:07	70	59.0880	134	47.6550	359		0
				BO	15:14	70	59.1050	134	47.6660	360	350	
				EN	15:29	70	59.1350	134	47.6480	362		

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05-08-2017	KUG_04	BON	29	BE	15:34	70	59.2240	134	47.7310	363	200	max depth 200m for all stations >200m depth
				EN	15:49	70	58.9510	134	48.9550	370		
05-08-2017	KUG_04	BOX	30	BE	15:58	70	58.8160	134	48.2030	356		First box core at this station. Success
				BO	16:02	70	58.8190	134	48.1900	356	356	
				EN	16:07	70	58.8330	134	48.1800	357		
	KUG_04	BOX	31	BE	16:18	70	58.8860	134	48.1290	360		
				BO	16:22	70	58.9030	134	48.1140	362	362	
				EN	16:26	70	58.9260	134	48.1050	365		
05-08-2017	KUG_04	BBT	32	BE	16:42	70	58.4910	134	50.1340	361		
				BO	17:00	70	58.9600	134	47.9780	364	364	
				EN	17:10	70	58.1700	134	47.1880	362		
05-08-2017	KUG_04	BBT	33	BE	17:30	70	59.8770	134	44.7260	361		Missed entry by about 2 minutes
				BO	17:48	70	59.3690	134	46.4840	363	363	Tow coincides with target layer at 325-360 m see screen capture:
				EN	17:58	70	59.1540	134	47.2390	360		
05-08-2017	KUG_04	W2A	34	BE	18:25	70	58.6050	134	50.5320	369		
				BO	18:36	70	58.9470	134	47.9960	362	362	
				EN	18:56	70	59.6110	134	45.7590	364		
05-08-2017	KUG_05	ROS	35	BE	19:48	71	3.0650	134	52.1600	516		
				BO	20:02	71	3.2960	134	51.8350	515	494.5	alt=5,7
				EN	20:19	71	3.5700	134	51.5080	517		
05-08-2017	KUG_05	MPS	36	BE	20:31	71	2.9940	134	52.3480	517		0
				BO	20:45	71	3.1918	134	52.0910	517	517	
				EN	20:57	71	3.3950	134	51.8840			
05-08-2017	KUG_05	ROS	37	BE	21:11	71	2.9040	134	52.3970	515		pump on 20:12:30
				BO	21:19	71	3.0340	134	52.1950	516	100	
				EN	21:33	71	3.2520	134	51.9080	516		
05-08-2017	KUG_05	BON	38	BE	21:44	71	3.3520	134	51.7240		200	
				EN	21:59	71	2.9270	134	52.4090			
05-08-2017	KUG_05	BOX	39	BE	22:11	71	2.9910	134	52.2040	516		Box core #1; success
				BO	22:16	71	3.0670	134	52.0830	516	516	
				EN	22:23	71	3.1478	134	51.9430	515		
05-08-2017	KUG_05	BOX	40	BE	22:36	71	3.3350	134	51.4790	512		Box core #2; success

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	22:41	71	3.4000	134	51.3200	512	512	
				EN	22:47	71	3.4730	134	51.1650	512		
05-08-2017	KUG_05	BBT	41	BE	23:11	71	1.9720	134	53.7420	512		
				BO	23:38	71	3.0430	134	51.9040	512		
				EN	23:48	71	3.3210	134	51.4430	511		
06-08-2017	KUG_05	BBT	42	BE		71	1.8760	134	54.6620	515		Misrecorded time code
				BO	0:52	71	2.9090	134	52.1190	512	512	
				EN	1:02	71	3.2330	134	51.4840	511		
06-08-2017	KUG_05	W2A	43	BE	1:32	71	4.4780	134	49.9430	525		Screen capture D20170806_T002524_Image.jpg
				BO	1:45	71	3.5980	134	51.0210	514	514	
				EN	2:05	71	2.7210	134	52.3560	512		
06-08-2017	KUG_06	ROS	44	BE	13:16	71	9.4490	134	58.4950	762		
				BO	13:36	71	9.3240	134	58.3940	756	735	734,6+4,6
				EN	13:57	71	9.1860	134	58.2840			
06-08-2017	KUG_06	MPS	45	BE	14:06	71	9.4780	134	58.9340	771		
				BO	14:24	71	9.4090	134	58.9290	767	745	
				EN	14:40	71	9.3260	134	58.9000	763		
06-08-2017	KUG_06	ROS	46	BE	15:00	71	9.5110	134	58.8740	772		
				BO	-	-	-	-	-	-	100	
				EN	15:22	71	9.4490	134	58.7520			
06-08-2017	KUG_06	BON	47	BE	15:32	71	9.2960	134	58.7730	761	200	
				EN	15:51	71	9.9000	134	58.6050	771		
06-08-2017	KUG_06	BOX	48	BE	16:07	71	9.5450	134	59.0560	775		
				BO	16:15	71	9.5430	134	58.8010	769	769	
				EN	16:24	71	9.5440	134	58.7320	769		
06-08-2017	KUG_06	BOX	49	BE	16:59	71	9.5190	134	58.8480	770		Triggered at surface upon initial deployment. Reset
				BO	17:08	71	9.4990	134	58.7040	767		New cable installed prior to deployment
				EN	17:18	71	9.5000	134	58.5850	764		
06-08-2017	KUG_06	W2A	50	BE	17:51	71	8.7190	135	2.4150	753		
				BO	18:11	71	9.4840	134	58.8750	770		
				EN	18:31	71	10.3810	134	57.8910	771		

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06-08-2017	KUG_07	ROS	51	BE	20:06	71	16.9680	135	6.5560	1005		New sound speed! Changed from 1492.5 to 1457
				BO	20:29	71	16.6920	135	7.0120	994	990	Wire wraps poor!
				EN	20:53	71	16.3930	135	7.5710	1013		alt=7,4
06-08-2017	KUG_07	MPS	52	BE	21:10	71	17.1000	135	6.2710	997		50-0
				BO	21:29	71	16.9300	135	6.7880	1001	990	
				EN	21:59	71	16.6770	135	7.7490	1019		
06-08-2017	KUG_07	ROS	53	BE	22:14	71	17.0880	135	6.1860	994		
				BO	22:21	71	16.9870	135	6.4200	1003	100	
				EN	22:34	71	16.7980	135	6.9490	997		
06-08-2017	KUG_07	BON	54	BE	22:43	71	16.6870	135	7.1130	997	200	
				EN	23:03	71	17.2240	135	6.0500	998		
06-08-2017	KUG_07	BOX	55	BE	23:07	71	17.2230	135	6.0650	998		
				BO	23:20	71	17.1480	135	6.7080	1005	1005	
				EN	23:33	71	17.0390	135	7.2010	1015		
06-08-2017	KUG_07	BOX	56	BE	23:43	71	17.0120	135	6.4510	1005		Box core didn't shut
				BO	23:56	71	16.9120	135	7.0970	1006	1006	Will try again
				EN	0:10	71	16.8590	135	7.8060	1039		
07-08-2017	KUG_07	BOX	57	BE	0:27	71	17.1096	135	5.9610			
				BO	0:37	71	16.9860	135	6.4880	1004	1004	
				EN	0:50	71	16.9470	135	7.2550			
07-08-2017	KUG_07	W2A	58	BE	1:27	71	15.0300	135	12.0200	976		Starbird door sensor not working
				BO	1:50	71	15.0250	135	7.8150			
				EN	2:09	71	15.0910	135	5.0820			
07-08-2017	KUG_07	UCTD	59	BE	12:08	71	17.6250	135	5.7530	1041		SOG=6,1 knots, speed in water=3,8-4,0 knots
				BO	12:12	71	17.3330	135	6.6660	1011		Max depth= ~300m
				EN	12:28	71	16.2220	135	9.9220	1037		UCTD#1
07-08-2017	KUG_07	UCTD	60	BE	12:32	71	15.9010	135	10.8700	1023		SOG=6,1, speed in water= 4,1 knots
				EN	12:51	71	14.5660	135	14.7450	1032		second cast at 6 knots
07-08-2017	KUG_HC1	UCTD	61	BE								
				BO	13:57	71	13.5610	135	2.8570	888		
				EN	14:12	71	11.5730	135	0.8520	836		

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07-08-2017	KUG_HC1	UCTD	62	BE	14:16	71	11.1112	135	0.4460			
				EN	14:43	71	7.5920	134	56.9490	635		
07-08-2017	KUG_HC1	CTD	63	BE	15:33	71	2.8380	134	52.2760			Seabird19
				BO	15:45	71	2.8220	134	52.4150	502	475	
				EN	15:51	71	2.8200	134	52.4830			
07-08-2017	KUG_HC1	MPS	64	BE	16:02	71	3.2340	134	52.7540	511	450	Target depths: 450, 350, 200, 100, 50
				EN	17:10	71	0.9750	134	50.3630	444		yeah!
07-08-2017	KUG_HC1	MWT	65	BE	17:39	71	0.1579	134	49.2780	410	350	
				BO	17:49	71	0.7940	134	50.0310	440		
				UP	18:03	71	1.7680	134	54.1370	459		
				EN	18:12	71	1.8770	134	51.2840	474		
07-08-2017	KUG_HC1	MWT	66	BE	18:43	71	2.7970	134	52.6320	503		
				BO	18:50	71	2.3570	134	51.8460			
				UP	19:10	71	1.2870	134	50.1010			
				EN	19:15	71	1.1440	134	49.8110			
07-08-2017	KUG_HC2	CTD	67	BE	21:28	70	51.0450	134	40.6120	78		Seabird19
				BO	21:33	70	51.0910	134	40.6650	78	71	
				EN	21:35	70	51.0970	134	40.6800	78		
07-08-2017	KUG_HC2	MPS	68	BE	21:40	70	51.1520	134	40.5960	79	60	Target depths: 60m, 15m
				EN	22:07	70	52.1170	134	41.5530	80		
07-08-2017	KUG_HC2	MWT	69	BE	22:30	70	51.2180	134	40.5730	81	60	see screen capture: D20170807_T221708_Image.jpg
				BO	22:34	70	51.4640	134	40.7870	83		
				UP	22:54	70	52.4200	134	41.7540	83		
				EN	22:59	70	52.8170	134	41.7830	85		
08/08/2017	CTL_HC1	BON	70	BE	16:40	70	23.6830	130	35.0800	17	6 to 7	
				EN	16:51	70	23.3110	130	35.3680	17		
08/08/2017	CTL_HC1	CTD	71	BE	16:58	70	23.2850	130	35.5020	18		
				BO	17:02	70	23.2850	130	35.5650	18	15	
				EN	17:03	70	23.2840	130	35.5800	18		
08/08/2017	CTL_HC2	CTD	72	BE	17:34	70	20.2950	130	37.6410	16	15	
				BO	17:38	70	20.2980	130	37.6030	16	15	
				EN	17:39	70	20.3010	130	37.5900	16		

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08/08/2017	CTL_HC2	BON	73	BE	17:44	70	20.3860	130	37.3490	16		Target was 6 to 7 m depth; RBR profile showed 2 to 4 m. Doing it over.
				EN	17:58	70	20.8960	130	36.9460	16	2 to 4	
08/08/2017	CTL_HC2	BON	74	BE	18:24	70	19.9890	130	37.5090	16		
				EN	18:40	70	20.5020	130	37.0700			
08/08/2017	LB_01	CTD	75	BE	22:33	70	49.1460	130	16.6370	38		2.8
				BO	22:42	70	49.0640	130	16.5170		35	Rosette with no bottles (SBE9+)
				EN	22:45	70	49.0330	130	16.4900	37		
09/08/2017	LB_02	CTD	76	BE	0:48	70	56.6710	129	27.7560	33		pH sensor (SBE18) added to CTD starting this cast.
				BO	0:54	70	56.6000	129	27.7150		32	Close to bottom but Rosette was clean
				EN	0:55	70	56.5920	129	27.7080	33		
09/08/2017	LB_03	CTD	77	BE	2:40	71	2.5380	128	48.7620	43		
				*STOP	2:44	71	2.5060	128	48.8450	43	37	alt 5.25 - stopped and changed diamond gear by 1 tooth then down to 2 m and back to surface
				BO	2:48	71	2.4640	128	48.9290		39	alt = 3.4
				EN	2:50	71	2.4460	128	48.9790	43		
09/08/2017	LB_04	CTD	78	BE	4:16	71	7.3070	128	16.4290	59		Pieces of ice within 3 miles
				BO	4:22	71	7.3040	128	16.3510	59	54.5	alt = 3.6
				EN	4:25	71	7.3040	128	16.3270			
09/08/2017	CPB_01	ROS	79	BE	13:11	70	32.0990	127	44.1190	23		
				BO	13:18					22	19	alt = 3.4
				EN	13:24	70	32.1900	127	44.4740	22		
09/08/2017	CPB_01	BON	80	BE	13:34	70	32.2440	127	44.7300	22		
				EN	13:50	70	32.7660	127	45.3330	21		
09/08/2017	CPB_01	BOX	81	BE	14:06	70	32.1240	127	43.7500			
				BO	14:07	70	32.1260	127	43.7500	22	22	Not a good core - redo
				EN	14:07	70	32.1270	127	43.7480			
09/08/2017	CPB_01	BOX	82	BE	14:16	70	32.1590	127	43.6890			Shallow core; hard substrate
				BO	14:16	70	32.1600	127	43.6880	21		
				EN	14:17	70	32.1620	127	43.6870			
09/08/2017	CPB_01	BOX	83	BE	14:26	70	32.2070	127	43.6460	22		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	14:26	70	32.2080	127	43.6460	21		
				EN	14:27	70	32.2090	127	43.6430	22		
09/08/2017	CPB_02	BON	84	BE	15:05	70	34.0530	127	32.8829	131	100	
				EN	15:28	70	34.5689	127	33.7064	135		
09/08/2017	CPB_02	MPS	85	BE	15:42	70	34.0137	127	33.2089	123		Trigger depths are: 160, 50, 25
				BO	15:46	70	34.0175	127	33.1730	124	101	
				EN	15:50	70	34.0245	127	33.1234	125		
09/08/2017	CPB_02	ROS	86	BE	16:04	70	34.0630	127	33.0290	128		Went to bottom (125 m), up yo 100 m, then back to 125 to fire Niskin 1
				BO	16:10	70	34.0800	127	32.9830	130	125	
				EN	16:36	70	34.1300	127	32.8640	134		
09/08/2017	CPB_02	BOX	87	BE	16:50	70	34.1690	127	32.7660	136		
					16:52	70	34.1700	127	32.7610	135		
09/08/2017	CPB_02	BOX	87	EN	16:53	70	34.1710	127	32.7580	136	136	
09/08/2017	CPB_02	BOX	88	BE	17:03	70	34.1876	127	32.7551	136	136	
				BO	17:04	70	34.1899	127	32.7561	136	136	
				EN	17:06	70	34.1926	127	32.7541	136	136	
09/08/2017	CPB_02	BBT	89	BE	17:21	70	33.8274	127	33.1368	119	119	
				BO	17:26	70	34.0024	127	33.4466	120	120	
				EN	17:37	70	34.3075	127	34.0436	121	121	End is when the net starts moving off bottom
09/08/2017	CPB_02	BBT	90	BE	17:47	70	34.5560	127	34.5270	121	121	
				BO	17:53	70	34.7490	127	34.9040	121	121	
				EN	18:03	70	35.0240	127	35.5490	121	121	
09/08/2017	CPB_02	W2A	91	BE	18:25	70	35.6670	127	36.6270	121		
				BO	18:30	70	35.9460	127	35.9340	120	121	
				EN	18:50	70	34.4240	127	34.2910	121		
09/08/2017	CPB_03	BON	92	BE	19:42	70	35.4310	127	22.2070	240		Changed sound speed to 1443.4 m/s
				EN	20:03	70	34.7820	127	20.9080	239	230	Niemi
09/08/2017	CPB_03	MPS	93	BE	20:20	70	35.7570	127	22.5120	236		
				BO	20:26	70	35.7460	127	22.5510	236	200	200-150, 150-100, 100-50, 50-0
				EN	20:34	70	35.7480	127	22.6460	236		
09/08/2017	CPB_03	ROS	94	BE	20:49	70	35.7870	127	22.7950	236		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	20:59	70	35.8180	127	22.9180	236	232	on upcast at 171 m. Was running Seasave, Team Viewer, and making labels. Computer restarted on its own and Seasave had saved the file so far. Restarted Seasave and finished cast at 0096b. Trip 2 bottles to catch up to right location for Niskin 3. Files: 2017-20-0094 has Niskins 1 and 2; 2017-20-0094b has trips 1-3 all at 171 ds and onward.
				EN	21:22	70	35.8910	127	23.1000	235		
09/08/2017	CPB_03	ROS	95	BE	22:20	70	35.8860	127	22.8580	236		Computer crashed at beginning of cast
				BO	22:24	70	35.9110	127	22.8790		80	
				EN	22:36	70	35.9830	127	22.9220	236		
09/08/2017	CPB_03	BOX	96	BE	22:58	70	36.1380	127	22.9710	237		
				BO	23:00	70	36.1580	127	22.9760	237	237	
				EN	23:03	70	36.1790	127	22.9930	237		
09/08/2017	CPB_03	BOX	97	BE	23:11	70	36.2390	127	23.0090	237		
				BO	23:14	70	36.2580	127	23.0000	237	237	
				EN	23:17	70	36.2820	127	23.0020	237		
09/08/2017	CPB_03	BBT	98	BE	23:35	70	37.2920	127	23.9430	236		
				BO	23:45	70	36.8130	127	23.5110	237	237	
				EN	23:44	70	36.4690	127	23.1660	237		
10/08/2017	CPB_03	BBT	99	BE	0:12	70	35.9930	127	22.7290	237		
				BO	0:16	70	35.8620	127	22.6000	237	237	
				EN	0:36	70	35.3720	127	22.0360	237		
10/08/2017	CPB_03	W2A	100	BE	0:47	70	34.6590	127	20.8860	238		
				BO	0:54	70	35.1420	127	21.5680	238		
				EN	1:14	70	36.0490	127	23.0010	236		
10/08/2017	CPB_04	CTD	101	BE	1:59	70	37.4120	127	11.8310	261		fired
				BO	2:09	70	37.4660	127	11.8020	261	260	alt = 2.5; Chl max = 60 m
				EN	2:17	70	37.4870	127	11.7620	261		
10/08/2017	CPB_05	CTD	102	BE	2:48	70	9.3420	127	0.8660	284		fired 39.34

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	2:58	70	39.3800	127	0.8150	284	282	alt = 3.2
				EN	3:04	70	39.4000	127	0.8020	284		salt spikes 116-127 m.Cable? Jellies?
10/08/2017	CPB_06	ROS	103	BE	13:19	70	41.1880	126	50.4680	297		
				BO	13:31	70	41.1860	126	50.4550	297	294.5	alt = 2.7. Is PAR working?
				EN	13:43	70	41.1700	126	50.4830	297		
10/08/2017	CPB_06	MPS	104	BE	13:52	70	41.1540	126	50.5590	299		0
				BO	13:57	70	41.1520	126	50.5860	297	290	
				EN	14:06	70	41.1510	126	50.5900	297		
10/08/2017	CPB_06	ROS	105	BE	14:34	70	41.0990	126	50.5810	298		
				BO	14:42	70	41.0890	126	50.6140	297	80	
				EN	14:56	70	41.0870	126	50.6750	297		
10/08/2017	CPB_06	BON	106	BE	15:06	70	41.0420	126	50.8870	296	200	15 min, as usual
				EN	15:21	70	40.5780	126	50.5440	298		
10/08/2017	CPB_06	BOX	107	BE	15:36	70	41.1990	126	50.1670	300		
				BO	15:39	70	41.2090	126	50.2590	298	298	
				EN	15:43	70	41.2080	126	50.3050	298		
10/08/2017	CPB_06	BOX	108	BE	15:50	70	41.2060	126	50.3400	298		
				BO	15:51	70	41.2060	126	50.3420	298	298	
				EN	15:57	70	41.2030	126	50.3440	298		
10/08/2017	CPB_06	BBT	109	BE	16:16	70	42.3520	126	49.2280	298		
				BO	16:26	70	41.9400	126	49.4930	298	298	
				EN	16:36	70	41.5970	126	49.7410	298		
10/08/2017	CPB_06	BBT	110	BE	16:53	70	40.9240	126	50.3810	299		
				BO	17:07	70	40.2470	126	50.4550	299	299	
				EN	17:17	70	39.8880	126	50.5270	302		
10/08/2017	CPB_06	W2A	111	BE	17:41	70	39.1580	126	51.0110			
				BO	17:51	70	39.9250	126	50.5890	298		
				EN	18:11	70	40.9290	126	50.3660			
10/08/2017	CPB_07	ROS	112	BE	20:28	70	48.6610	126	6.5920	356		
				BO	20:41	70	48.7250	126	6.4900	356	354	alt = 2.7
10/08/2017	CPB_07	MPS	113	BE	21:02	70	48.8670	126	6.7310			
				BO	21:09	70	48.8990	126	6.7470	358	350	
				EN	21:19	70	48.9440	126	6.7750			

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
10/08/2017	CPB_07	ROS	114	BE	21:37	70	48.4640	126	6.3730	358		oxygen spiky on upcast - check tubing
				BO	21:42	70	48.4720	126	6.4280		80	
				EN	21:57	70	48.5340	126	6.4640	358		
10/08/2017	CPB_07	MPS	115	BE	22:04	70	48.5770	126	6.4250			
				BO	22:12	70	48.6130	126	6.4230	357	350	
				EN								Get time from Andrea's notes
10/08/2017	CPB_07	BON	116	BE	22:30	70	48.6450	126	6.4720	358		
				EN	22:51	70	47.9940	126	5.7350			
10/08/2017	CPB_07	BOX	117	BE	23:05	70	48.6400	126	6.2510			
				BO	23:09	70	48.6650	126	6.2490	356		
				EN	23:13	70	48.6740	126	6.2380			
10/08/2017	CPB_07	BOX	118	BE	23:20	70	48.6930	126	6.2460			
				BO	23:25	70	48.7040	126	6.2520	357		
				EN	23:29	70	48.7090	126	6.2550			
11/08/2017	CPB_07	BBT	119	BE	23:47	70	49.7910	126	7.1890	356		
				BO	0:07	70	48.9000	126	6.5390	359	359	
				EN	0:17	70	48.5920	126	6.2820	357		
11/08/2017	CPB_07	BBT	120	BE	0:34	70	48.9580	126	6.6360	360		
				BO	0:51	70	48.1850	126	5.8680	357	357	
				EN	1:01	70	47.8970	126	5.5470	357		
11/08/2017	CPB_07	W2A	121	BE	1:23	70	47.3290	126	4.8320	357		
				BO	1:32	70	48.0270	126	5.7550	358		
				EN	1:52	70	48.9810	126	6.6830	360	360	
11/08/2017	CPB_08	ROS	122	BE	13:15	70	55.8670	125	22.6620	356		
				BO	13:30	70	55.7820	125	22.7530	357	359	alt = 3.5
				EN	13:49	70	55.7380	125	22.8740	353		
11/08/2017	CPB_08	MPS	123	BE	13:54	70	55.7120	125	22.9850	352		
				BO	14:01	70	55.6870	125	23.0130	351	340	
				EN	14:10	70	55.7050	125	23.1380	350		
11/08/2017	CPB_08	ROS	124	BE	14:29	70	55.8850	125	22.7690	355		
				BO	14:34	70	55.8850	125	22.8200	355	80	
				EN	14:52	70	55.8973	125	22.9981	355		
11/08/2017	CPB_08	BON	125	BE	14:58	70	55.0010	125	23.0670	355		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				EN	15:20					358		
11/08/2017	CPB_08	BOX	126	BE	15:34	70	55.9090	125	22.6080	355		
				BO	15:38	70	55.9140	125	22.6470	355	355	
				EN	15:42	70	55.9220	125	22.6660	355		
11/08/2017	CPB_08	BOX	127	BE	15:49	70	55.9460	125	22.6960	356		
				BO	15:53	70	55.9610	125	22.7190	353	353	
				EN	15:57	70	55.9740	125	22.7590	353		
11/08/2017	CPB_08	BBT	128	BE	16:21	70	53.9634	125	22.1874	337	337	
				BO	16:40	70	54.8499	125	22.3827	347	347	
				UP	16:51	70	55.1833	125	22.7569	348	348	
				EN	17:01	70	55.3066	125	23.2578	345	345	
11/08/2017	CPB_08	BBT	129	BE	17:11	70	54.3740	125	21.2730	341		
				BO	17:30	70	55.2460	125	22.7440	351	351	
				EN	17:40	70	55.5230	125	23.1700	353		
11/08/2017	CPB_08	W2A	130	BE	18:19	70	54.4940	125	21.8560	344		
				BO	18:28	70	55.1520	125	22.6280	352	352	
				EN	18:48	70	56.0660	125	23.8440	358		
11/08/2017	CPB_09	ROS	131	BE	21:05	71	3.3140	124	37.8960	330		Coming on station depth was 360 m, now 330 m - variable bottom
				BO	21:15	71	3.4150	124	37.9520	330	323	alt = 5.0
				EN								
11/08/2017	CPB_09	MPS	132	BE	21:38	71	3.6050	124	38.0690	333		
				BO	22:47	71	3.6850	124	38.1290	334	320	
				EN	21:58	71	3.7710	124	38.1940	334		
11/08/2017	CPB_09	ROS	133	BE	22:23	71	3.4260	124	38.3500	340		
				BO	22:32	71	3.2810	124	38.2490	336	300	
11/08/2017	CPB_09	BON	134	BE	22:55	71	3.4040	124	38.5040	347	200	
					23:19	71	3.9350	124	39.6240	356		
11/08/2017	CPB_09	BOX	135	BE	23:36	71	3.1040	124	38.0930	333		
				BO	23:40	71	3.1100	124	38.0420	333	333	
				EN	23:43	71	3.1060	124	37.9920	332		
11/08/2017	CPB_09	BOX	136	BE	23:51	71	3.1130	124	37.8360	331		
				BO	23:54	71	3.1210	124	37.7470	330	330	

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				EN	23:57	71	3.1250	124	37.6720	330		
12/08/2017	CPB_09	BBT	137	BE	0:22	71	4.5120	124	39.3780	313		
				BO	0:37	71	3.8470	124	38.3530	335	335	
				EN	0:47	71	3.5200	124	37.9840	330		
12/08/2017	CPB_09	BBT	138	BE	1:09	71	2.3140	124	36.4980	330		
				BO	1:26	71	3.0530	124	37.4470	329	329	
				EN	1:36	71	3.3570	124	37.8150	329		
12/08/2017	CPB_09	W2A	139	BE	2:01	71	2.5470	124	36.6750	328		
				BO	2:09	71	3.0540	124	37.4590	329	329	
				EN	2:29	71	3.9730	124	38.3630	328		
12/08/2017	CPB_10	ROS	140	BE	13:33	71	10.6680	123	53.1880	229		
				BO	13:43	71	10.7140	123	53.2580	223	219	alt = 3
				EN	13:53	71	10.7540	123	53.3380	222		
12/08/2017	CPB_10	MPS	141	BE	14:00	71	10.7880	123	53.3770	220		
				BO	14:04	71	10.8090	123	53.4250	219	200	
				EN	14:10	71	10.8310	123	53.4710	218		
12/08/2017	CPB_10	ROS	142	BE	14:31	71	10.7220	123	52.8840	228		
				BO	14:38	71	10.7680	123	53.0000	220	80	
				EN	14:52	71	10.7960	123	53.1120	221		
12/08/2017	CPB_10	BON	143	BE	15:02	71	10.7080	123	53.4730	217	200	
				BO	15:00	71	10.3300	123	55.2140	238		
12/08/2017	CPB_10	BOX	144	BE	15:35	71	10.6000	123	53.0790	242		Shallow core
				BO	15:38	71	10.5970	123	53.0710	243	243	
12/08/2017	CPB_10	BOX	144	EN	15:41	71	10.5920	123	53.0620	244		
12/08/2017	CPB_10	BOX	145	BE	15:49	71	10.5880	123	53.0360	243		Didn't trigger
				BO	15:52	71	10.5930	123	53.0410	242	242	
				EN	15:55	71	10.6000	123	53.0500	242		
12/08/2017	CPB_10	BOX	146	BE	16:00	71	10.6610	123	53.0690	241		Full of water
				BO	16:02	71	10.6130	123	53.0810	238	238	
				EN	16:05	71	10.6140	123	53.0920	237		
12/08/2017	CPB_10	BOX	147	BE	16:12	71	10.6980	123	53.5400	217		
				BO	16:15	71	10.7090	123	53.5480	217	217	Better core
				EN	16:18	71	10.7180	123	53.5560	217		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
12/08/2017	CPB_10	W2A	148	BE	16:37	71	10.9125	123	52.4946	272	272	Bottom is "bumpy" so the tow duration was shortened (ended up at 15 min)
				BO	16:44	71	10.6060	123	54.1220	222	222	
				EN	17:00	71	10.2575	123	56.2868	257	257	
12/08/2017	CPB_11	ROS	149	BE	19:08	71	14.6700	123	28.4270	189		
				BO	19:14	71	14.6940	123	28.5430	193	189	alt = 3. Bottom depth ranges from 175-195 m around station
				EN	19:24	71	14.6980	123	28.5610	194		
12/08/2017	CPB_11	MPS	150	BE	19:30	71	14.6708	123	28.5680	195.5	190	
				BO	19:34	71	14.6640	123	28.6210	197		
				EN	19:40	71	14.6510	123	28.6720	200		
12/08/2017	CPB_11	ROS	151	BE	19:51	71	14.6280	123	28.7960	200		Fog lifted. Great view of Banks Island. Polar Bear climbing the hillside
				BO	19:58	71	14.6150	123	28.8340		80	
				EN	23:38	71	14.6360	123	28.8740	200		PC crashed
12/08/2017	CPB_11	BON	152	BE	22:35	71	14.7580	123	28.6000	192	180	
				EN	20:55	71	14.2020	123	27.8850	188		
12/08/2017	CPB_11	W2A	153	BE	21:12	71	14.9380	123	29.0711	192		
				BO	21:13	71	14.9720	123	29.1260	193	208	
				EN	21:33	71	15.8790	123	30.5150	208		
12/08/2017	CPB_11	BOX	154	BE	22:06	71	14.6900	123	28.5180	193		
				BO	22:08	71	14.7050	123	28.5410	195	195	
				EN	22:10	71	14.7120	123	28.5560	195		
12/08/2017	CPB_11	BOX	155	BE	22:18	71	14.7270	123	28.5820	193		
				EN	22:20	71	14.7320	123	28.5850	193	193	
				EN	22:23	71	14.7390	123	28.5900	193		
12/08/2017	CPB_11	BBT	156	BE	22:39	71	14.9390	123	29.1010	193		
				BO	22:53	71	15.6380	123	30.2140	194	194	
				EN	23:03	71	15.9340	123	30.5300	216		
12/08/2017	CPB_11	BBT	157	BE	23:17	71	16.2380	123	30.9440	229		
				BO	23:36	71	15.3380	123	29.8940	193	195	
				EN	23:46	71	15.0350	123	29.2700	193		
12/08/2017	CPB_HC1	MPS	158	BE	3:19	71	2.2550	123	36.4930	330	310	Trigger depths = 300, 175, 75, 25 m

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	3:36	71	2.8160	123	37.1070	327		
				EN	4:10	71	3.9810	123	38.5670	330		
13/08/2017					12:57	70	50.1329	127	32.5506			Turned back from LB05B to acoustic line as wind event study called off
13/08/2017	CPB_HC2	CTD	159	BE	15:30	70	41.0090	126	50.3000	300		Rosette with no bottles
				BO	15:40	70	40.9620	126	50.4960		296	alt = 3.2; Chl max at 60 m; s = 33.1 = 167.16
				EN	15:46	70	40.9380	126	50.6170			
13/08/2017	CPB_HC2	MPS	160	BE	15:54	70	40.8720	126	50.5480	300		Target depths: 300, 150, 60, 25
				BO	16:04	70	41.0350	126	49.5760	303	290	
				EN	16:44	70	41.6140	126	45.4790	312		
13/08/2017	CPB_HC2	MWT	161	BE	17:11	70	41.6080	126	44.4090	315		Target depth 60 m
				BO	17:16	70	41.5070	126	45.2070			Screen capture: D20170813_T170136_Image.jpg
				UP	17:36	70	41.0810	126	48.3250			
				EN	17:39	70	41.0350	126	48.5630	305		
13/08/2017	CPB_HC3	CTD	162	BE	19:25	70	35.9240	127	21.6760	240		Rosette with no bottles (SBE9)
				BO	19:34	70	35.8740	127	22.0600	239	235	s = 33.1 at 187 m, Chl max at 50 m
				EN	19:39	70	35.8420	127	22.3070	237		alt = 3.7
13/08/2017	CPB_HC3	MPS	163	BE	19:48	70	35.8500	127	21.8670	239		
				BO							230	Verify bottom layer with AN
				EN	19:46	70	36.8950	127	16.2500	252		Target depths = 230, 150, 70, 30, 15 m
13/08/2017	CPB_HC4	CTD	164	BE								Rosette with no bottles (SBE9)
				BO	22:19	70	31.9240	127	46.2780	21.5	19	alt = 3.5
				EN	22:21	70	31.9580	127	46.4770	21.5		wind NE, low swell, white caps just starting (10-15 kn?)
13/08/2017	CPB_HC4	BON	165	BE	22:28	70	32.0400	127	47.4480	19.8	15	Top 15 m
				EN	22:41	70	32.4540	127	49.2870	17.8		
15/08/2017	FKN_06	ROS	166	BE	13:12	70	0.1330	125	23.9450	50		
				BO	13:21	70	0.0830	125	24.1540	50	46	
				EN	13:36	70	0.0050	125	24.5480	50		
15-08-2017	FKN_06	MPS	167	BE	13:44	70	0.1230	125	23.4350	47		FKN_05. Replaced fuse in multinet - fixed.

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	13:45	70	0.1180	125	23.4680	47	40	
				EN	13:48	70	0.1090	125	23.5330	47		
15-08-2017	FKN_06	BON	168	BE	13:58	70	0.0080	125	23.5130	45	40	
				EN	12:31	70	0.3780	125	22.4780	50		
15-08-2017	FKN_06	BOX	169	BE	14:25	70	0.0870	125	23.7140	48	48	
				BO	14:25	70	0.0830	125	23.7230	48		
				EN	14:26	70	0.0800	125	23.7390	48		
15-08-2017	FKN_06	BOX	170	BE	14:33	70	0.0720	125	23.9070	49	49	
				BO	14:34	70	0.0690	125	23.9280	49		
				EN	14:35	70	0.0630	125	23.9590	49		
15-08-2017	FKN_06	BBT	171	BE	14:55	69	59.5670	125	25.6730	55	51	
				BO	15:00	69	59.7630	125	25.2950	51		
				EN	15:10	70	0.0330	125	24.6230	51		
15-08-2017	FKN_06	BBT	172	BE	15:19	70	0.2540	125	24.0120	50	51	
				BO	15:22	70	0.3280	125	23.7930	51		
				EN	15:32	70	0.5511	125	23.1120	54		
15-08-2017	FKN_06	W2A	173	BE	15:48	70	0.8340	125	22.4450	53	54	
				BO	15:52	70	0.6310	125	22.9830	54		
				EN	16:11	69	59.9280	125	24.9260	51		
15-08-2017		UCTD	174	BE	16:37	70	0.1030	125	25.9560	56		
				EN	17:17	70	0.0980	125	41.4220	90		
NA - SKIPPED EVENT NUM 175												
15-08-2017	FKN_05	ROS	176	BE	18:19	70	0.1100	125	45.8400	76		file called 175
				BO	18:25	70	0.0860	125	46.0630	76	72.5	
				EN	18:40	70	0.0240	125	46.6430	77		
15-08-2017	FKN_05	BON	177	BE	18:58	70	0.0350	125	46.1240	76	70	
				EN	19:14	69	59.5280	125	46.5150	75		
15-08-2017	FKN_05	BOX	178	BE	19:35	70	0.1820	125	46.3510	77		
				BO	19:36	70	0.1870	125	46.4090	77	77	
				EN	19:37	70	0.1930	125	46.4640	77		
15-08-2017	FKN_05	BOX	179	BE	19:44	70	0.2460	125	46.6930	78		
				BO	19:45	70	0.2480	125	46.7210	78	78	
				EN	19:46	70	0.2490	125	46.7600	78		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
15-08-2017	FKN_05	BBT	180	BE	20:07	69	59.1160	125	47.2420	76		
				BO	20:12	69	59.3180	125	46.9260	76	76	
				EN	20:22	69	59.6240	125	46.5910	75		
16-08-2017	FKN_05	BBT	181	BE	20:35	70	0.2130	125	45.8570	75		
				BO	20:43	69	59.8740	125	46.2440	75	75	
				EN	20:53	69	59.5750	125	46.5900	75		
16-08-2017	FKN_05	CTD	182	BE	13:22	70	0.0140	125	46.6330	77		Rosette (SBE9+) but no bottles
				BO	13:26	69	59.9930	125	46.7030		74.5	alt = 3.0; Repeat cast because we're starting after a 1/2 day break
				EN	13:29	69	59.9780	125	46.7410	77		
16-08-2017	FKN_05	MPS	183	BE	13:36	69	59.9310	125	46.7890	77		Target depths: 70-50, 50-25, 25-0 m
				BO	13:37	69	59.9220	125	46.8080	77	70	Multinet indicated short circuit on 15-Aug-2017 at FKN_05. Fixed by replacing fuse in multinet.
				EN	13:40	69	59.9050	125	46.8400	77		
16-08-2017	FKN_05	W2A	184	BE	13:59	69	59.0500	125	47.2770	76		W2A deployment on 15-Aug-2017 at FKN_05. Stopped operations for the day and anchored in Sellwood Bay on east side of Franklin - 69 54.64 N, 125 10.12 W
				BO	14:02	69	59.2650	125	46.9860	76	76	
				EN	14:22	70	0.1460	125	46.0770	76		
16-08-2017	FKN_04	ROS	185	BE	15:22	70	0.1610	125	58.0060	150		
				BO	15:29	70	0.1150	125	57.9830	151	150.8	alt = 4.2
				EN	15:36	70	0.0620	125	58.0440	156		
16-08-2017	FKN_04	MPS	186	BE	15:43	70	0.0110	125	58.1580	160		Target depth = 150-100, 100-75, 75-50, 50-0
				BO	15:45	69	59.9960	125	58.1850	162	155	
				EN	15:49	69	59.9660	125	58.2280	164		
16-08-2017	FKN_04	ROS	187	BE	16:02	70	0.1240	125	57.8340	147		
				BO							100	
				EN	16:19	70	59.9780	125	57.9760	159	150	
16-08-2017	FKN_04	BON	188	BE	16:27	69	59.8650	125	57.9830	160		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				EN	16:43	69	59.3130	125	57.4700	159		
16-08-2017	FKN_04	BOX	189	BE	17:01	70	0.1490	125	57.8970	149		
				BO	17:03	70	0.1310	125	57.8700	147	147	
				EN	17:05	70	0.1120	125	57.8630	147		
16-08-2017	FKN_04	BOX	190	BE	17:12	70	0.0440	125	57.9360	153		
				BO	17:14	70	0.0320	125	57.9580	155	155	
				EN	17:16	70	0.0130	125	57.9850			
16-08-2017	FKN_04	BBT	191	BE	17:35	69	0.9855	125	58.3626	161	161	
				BO	17:47	69	0.4081	125	58.0784	153	153	
				EN	17:57	69	0.1002	125	57.9711	154	154	
16-08-2017	FKN_04	BBT	192	BE	18:06	69	59.9000	125	57.8430	158		
				BO	18:17	69	59.3970	125	57.2030	152	152	
				EN	18:27	69	59.0990	125	56.9250	150		
16-08-2017	FKN_04	W2A	193	BE	18:48	69	58.7690	125	56.6880	148		
				BO	18:52	69	59.1430	125	57.0370	152	152	
				EN	19:12	70	0.0380	125	57.8380	150		
16-08-2017		UCTD	194	BE	19:38	70	0.0960	126	0.3970	191		
				EN	20:17	70	0.0780	126	15.5190	211		
16-08-2017	FKN_03	ROS	195	BE	20:34	70	0.1140	126	15.1430	211		
				BO	20:43	70	0.0910	126	15.3170		207.6	alt = 3.3
				EN	20:54	70	0.0600	126	15.4680			
16-08-2017	FKN_03	MPS	196	BE	21:01	70	0.0520	126	15.6330	211	200	
				BO	21:05	70	0.0400	126	15.7150	210		
				EN	21:11	70	0.0190	126	15.7930	210		
16-08-2017	FKN_03	ROS	197	BE	21:26	70	0.1030	126	14.8990	212		cast!
				BO	21:31	70	0.0880	126	15.0180		80	
				EN	21:42	70	0.0660	126	15.1690	211		
16-08-2017	FKN_03	BON	198	BE	21:51	70	0.0840	126	15.1960	211	200	
				EN	22:14	70	0.8130	126	15.8500	216		
16-08-2017	FKN_03	BOX	199	BE	22:30	70	0.0280	126	15.0560	211		
				BO	22:32	70	0.0310	126	15.0480	211	211	
				EN	22:35	70	0.0270	126	15.0779	211		
16-08-2017	FKN_03	BOX	200	BE	22:42	70	0.0124	126	15.2160	211		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	22:44	70	0.0055	126	15.2635	211	211	
				EN	22:47	69	59.9993	126	15.3050	211		
16-08-2017	FKN_03	BBT	201	BE	23:06	69	59.4567	126	14.5714	208	208	
				BO	23:16	69	59.8871	126	14.9005	211	211	
				EN	23:26	70	0.2232	126	15.2255	213	213	
16-08-2017	FKN_03	BBT	202	BE	23:42	70	0.8420	126	16.1830	215		
				BO	23:53	70	0.4070	126	15.6420	213	213	
				EN	0:03	70	0.1130	126	15.2610	211		
17-08-2017	FKN_03	W2A	203	BE	0:24	69	59.7320	126	14.8460	210		
				BO	0:29	70	0.0700	126	15.2480	211	211	
				EN	0:49	70	0.9450	126	16.1650	215		
17-08-2017		UCTD	204	BE		69	0.1030	126	15.0000			FLN_02. Starting position is approximate.
				EN	2:28	70	59.8527	126	35.5708	185		
17-08-2017	FKN_02	ROS	205	BE	13:25	70	0.1980	126	40.4510	157		PAR cover accidentally left on
				BO	13:33	70	0.2750	126	40.6640	154	150.5	alt = 3.6
				EN	13:43	70	0.3490	126	41.0800	147		
17-08-2017	FKN_02	MPS	206	BE	13:52	70	0.1116	126	40.8153	148	145	Target depths: 145, 100, 50, 25, 0
				BO	13:56	70	0.1312	126	40.9494	146	145	
				EN	14:01	70	0.1642	126	41.2001	142		
17-08-2017	FKN_02	ROS	207	BE	14:17	70	0.0650	126	40.8940	147		PAR cover is off
				BO	14:23	70	0.1180	126	41.1820	142	140	alt = 2.5; Ship 294° drift of Ikut
				EN	14:37	70	0.2020	126	41.8010	135		Took full depth cast since PAR missed last cast
17-08-2017	FKN_02	BON	208	BE	14:52	70	0.3317	126	41.4712	141		cover. Sample no good, full of mud. Cannot lift the nets towed at surface to clear.
				EN	15:21	69	59.9397	126	39.8206	169	150	
17-08-2017	FKN_02	BON	209	BE	15:43	69	59.2997	126	39.9620	153	100	photo taken of acoustics D20170817-T154117. Strong zooplankton signal 50-100 m. Good tow this time
				EN	15:57	69	59.7499	126	40.5309	149		
17-08-2017	FKN_02	BOX	210	BE	16:07	70	0.0787	126	40.5220	154		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	16:09	70	0.0923	126	40.6207	152	152	
				EN	16:10	70	0.0943	126	40.6443	151		
17-08-2017	FKN_02	BOX	211	BE	16:19	70	0.1353	126	41.0438	145		Zooplankton layer was at 50-100 m and dense. Screen shot and note made in acoustics log book
				BO	16:21	70	0.1464	126	41.1191	144	144	
				EN	16:23	70	0.1567	126	41.1992	142		
17-08-2017	FKN_02	BBT	212	BE	16:49	69	58.6616	126	39.2030	155		Zooplankton layer was at 50-100 m and dense. Screen shot and note made in acoustics log book
				BO	17:01	69	59.1597	126	39.8202	152	152	
				EN	17:11	69	59.4401	126	40.2426	150		
17-08-2017	FKN_02	BBT	213	BE	17:22	69	59.7953	126	40.8749	145		Spike in depth profile of net sinking - no issue, tow was good
				BO	17:36	70	0.5309	126	40.9534	153	153	
				EN	17:46	70	0.8277	126	41.4109	150		
17-08-2017	FKN_02	W2A	214	BE	18:05	70	1.2634	126	42.0209	146		
				BO	18:10	70	0.9071	126	41.4577	150	150	
				EN	18:30	70	0.0509	126	40.3176	157		
17-08-2017	FKN_01	ROS	215	BE	19:40	70	0.1850	126	49.2580	50		
				BO							46	alt = 3
				EN	19:54	70	0.2830	126	49.4630	49		
17-08-2017	FKN_01	MPS	216	BE	20:03	70	0.0892	126	49.0553	51	45	targeted depths = 45-20, 20-10, 10-0
				BO	20:05	70	0.1093	126	49.0715	51	45	
				EN	20:07	70	0.1343	126	49.1043	51		
17-08-2017	FKN_01	BON	217	BE	20:16	60	0.2066	126	49.2302	51		
				EN	20:29	70	59.7609	126	48.6735	51		
17-08-2017	FKN_01	BOX	218	BE	20:45	70	0.1333	126	48.8124	54		
				BO	20:46	70	0.1403	126	48.8248	55	55	
				EN	20:47	70	0.1507	126	48.8455	55		
17-08-2017	FKN_01	BOX	219	BE	20:54	70	0.2052	126	48.9702	54		
				BO	20:55	70	0.2083	126	48.9751	54	54	
				EN	20:56	70	0.2132	126	48.9793	54		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
17-08-2017	FKN_01	BBT	220	BE	21:19	69	58.7290	126	46.0001	52		
				BO	21:26	69	58.9968	126	47.4312	52	52	
				EN	21:36	69	59.2689	126	47.8427	53		
17-08-2017	FKN_01	BBT	221	BE	21:43	69	59.4450	126	48.1319	52		
				BO	21:48	69	59.6089	126	48.3463	53	53	
				EN	21:58	69	59.8865	126	48.7556	52		
17-08-2017	FKN_01	W2A	222	BE	22:18	69	59.2624	126	47.9138	51		picked up mud in the net and had to pull it back right after set
				BO	22:20	69	59.4312	126	48.1803	51	51	
				EN	22:22	69	59.5217	126	48.3133	51		
17-08-2017	FKN_01	W2A	223	BE	22:49					56		I missed the long and lats when the doors went on
				BO	22:51	69	59.5155	126	47.9399	56	56	
				EN	23:09	70	0.2818	126	49.3109	51		
18-08-2017		UCTD	224	BE	1:16	70	0.0800	126	52.9800	10		tow-yos between FKN_01 and FKN_02
				EN	2:07	70	0.0840	126	32.8860	190		
18-08-2017	FKN_HC	UCTD	225	BE	13:45	70	0.0880	125	14.7600	22		
				EN	13:58	70	0.0570	125	21.1640	33		
18-08-2017	FKN_HC1	CTD	226	BE	14:39	70	0.7680	125	17.9470	34		14 39 30 Rosette with mno bottles (CTD SBE 9+)
				BO	14:43	70	0.7850	125	17.9630	34	31	alt = 3
				EN	14:48	70	0.8080	125	18.0050	34		
18-08-2017	FKN_HC1	MPS	227	BE	15:04	70	0.9240	125	18.0620	33	25	Target depths = 20 and 8 m
				EN	15:24	70	0.3990	125	19.6230	36		Horizontal tow 5 min per target depth
18-08-2017	FKN_HC	UCTD	228	BE	15:34	70	0.0620	125	21.4780	38		
				EN	15:40	70	0.7590	125	23.8020	49		
18-08-2017	FKN_HC	DRIFTER	229	BE	15:41	70	0.0810	125	24.2860	51		Deployed drifter SN #962
18-08-2017	FKN_HC	UCTD	230	BE	15:44	70	0.0850	125	26.2880	59		
				EN	16:39	70	0.0990	125	46.5950	77		
18-08-2017	FKN_HC	DRIFTER	231		16:40	70	0.0940	125	46.8430	78		Drifter deployment @ FKN_04 SN #963
18-08-2017	FKN_HC	UCTD	232	BE	15:32	70	0.0610	125	20.8550			
				EN	17:09	70	0.1060	125	58.0290	157		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
18-08-2017	FKN_HC2	CTD	233	BE	17:19	70	0.0220	125	57.5720	145		Using Rosette with no bottles fired
				BO	17:26	69	59.9960	125	57.4720	141	140	2010 SBE9+ alt = 2
				EN	17:30	69	59.9920	125	57.4610	141		
18-08-2017	FKN_HC2	MPS	234	BE	17:39	70	0.0840	125	57.8590	144	125	Target depths: 125, 110, 70, 10 m
				EN	18:15	70	1.3100	125	58.2520	161		
18-08-2017	FKN_HC2	MWT	235	BE	18:37	70	2.0990	125	58.2260	164		
				BO	18:42	70	1.7930	125	58.2140	163	60	
				UP	19:02	70	0.7430	125	58.0420	151		
				EN	19:04	70	0.6720	125	58.0640	151		
18-08-2017	FKN_HC	UCTD	236	BE	19:32	70	0.1090	125	59.3610	185		
				EN	20:16	70	0.1020	126	16.4120	211		
18-08-2017	FKN_HC3	CTD	237	BE	20:28	70	0.3250	126	15.7750	212		Rosette with SBE9+ but no bottles fired
				BO	20:35	70	0.3480	126	15.8230	212	209	alt = 3; S=33.1 @ 173
				EN	20:39	70	0.3620	126	15.8460	212		
18-08-2017	FKN_HC3	MPS	238	BE	20:44	70	0.3840	126	15.8340	213		Target depths: 200, 110, 30, 8 m
				EN	21:31	69	58.7780	126	13.8350	207		
18-08-2017	FKN_HC3	MWT	239	BE	21:47	69	58.3120	126	13.3986	204		
				BO	21:58	69	58.9183	126	14.1269	206	200	
				UP	22:18	69	59.9037	126	15.2941	211		
				EN	22:28	70	0.1119	126	15.3907	213		
18-08-2017	FKN_HC	UCTD	240	BE	22:43	70	0.0960	126	15.2480			location and time where we resumed transect
				EN	23:47	70	0.1040	126	40.5830	153		
18-08-2017	FKN_HC4	CTD	241	BE	23:54	69	59.9990	126	40.7330	149		Rosette with SBE9+ but no bottles
19-08-2017				BO	0:00	69	59.9160	126	40.9270	145	143	alt = 2
19-08-2017				EN	0:03	69	59.8750	126	41.0080	143		
19-08-2017	FKN_HC4	MPS	242	BE	0:12	69	59.8140	126	41.3370	138		Target depths = 70, 20, 8 m
				EN	0:36	70	0.6950	126	42.1960	134		
19-08-2017	FKN_HC4	MWT	243	BE	0:49	70	0.9470	126	42.2200	135		
				BO	0:52	70	0.8170	126	42.0190	137		
				UP	1:12	69	59.7480	126	40.4750	151		
				EN	1:13	69	59.7140	126	40.4470	151		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
19-08-2017	FKN_HC	UCTD	244	BE	1:44	70	0.0900	126	40.6100			location and time where we resumed transect
				EN	2:12	70	0.1030	126	52.0070	18		
19-08-2017	FKN_HC5	CTD	245	BE	2:22	70	0.2540	126	51.8180	25		Rosette with SBE9+ but no bottles fired
				BO	2:24	70	0.2570	126	51.8690		22	alt = 2.3
				EN	2:26	70	0.2570	126	51.9100			
19-08-2017	FKN_HC5	MPS	246	BE	2:34	70	0.2620	126	51.9380	23	10	Target depths: 10 and 8 m
				EN	2:50	69	59.8570	126	50.5760	28		
19-08-2017	FKN_HC	DRIFTER	247		3:02	70	0.1860	126	49.6110	46		Drifter deployment @ FKN_01 (50 m), SN 965
19-08-2017	FKN_HC	UCTD	248	BE		70	0.1860	126	49.6110	46		From FKN_01 across mouth of Horton River
				EN	3:57	69	53.4280	126	43.3610	75		
19-08-2017	FKN_HC	DRIFTER	249	BE	1:54	70	0.0000	126	42.5000			SN #964 dropped ~0.5 km west of FKN_HC4 (CTD Event #241)
19-08-2017	FEX_HC	UCTD	250	BE								
				EN	13:56	69	30.1330	125	51.8070	44		
19-08-2017	FEX_HC1	CTD	251	BE	14:04	69	30.2390	125	51.7070	44		Rosette SBE9+ but no niskins fired
				BO	14:08	69	30.2280	125	51.6310	43	41.5	alt = 2.5
				EN	14:10	69	30.2180	125	51.6160			
19-08-2017	FEX_HC1	MPS	252	BE	14:24	69	30.0360	125	51.9790	45		Target depths = 35, 15, 8 m
				EN	14:43	69	29.2710	125	51.4590	45		
19-08-2017	FEX_HC	UCTD	253	BE								
				EN	16:23	69	40.6810	125	59.0210	101		
19-08-2017	FEX_HC2	CTD	254	BE	16:37	69	40.4480	125	59.0500	100		fired
				BO	16:42	69	40.3340	125	59.1420	101	98	alt = 2.7
				EN	16:46	69	40.2600	125	59.1740	100		
19-08-2017	FEX_HC2	MPS	255	BE	16:53	69	40.2600	125	59.7420	100	95	Beginning lat/long approx same at EN of CTD_254
				EN	17:24	69	41.1860	125	59.9000	105		
19-08-2017	FEX_HC2	MWT	256	BE	17:45	69	40.0910	125	58.9150	100		See screen capture D2017 0819_T162420_Image.jpg and D2017 0819_T171031_Image.jpg

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	17:49	69	40.3070	125	59.0100	100	60	
				UP	18:09	69	41.2900	125	59.5200	105		
				EN	18:13	69	41.3590	125	59.6820	106		
19-08-2017	FEX_HC	UCTD	257	BE	19:12	69	45.6730	126	2.3850	125		Toyo #14
				EN	21:38	70	4.8300	126	15.4970	230		
19-08-2017	FEX_HC	UCTD	258	BE								Toyo #15
				EN	23:07	70	12.4970	126	20.1140	221		
19-08-2017	FEX_HC3	CTD	259	BE	23:17	70	12.6140	126	19.8460	220		closed
				BO	23:25	70	12.5530	126	19.6660	220	218	alt = 2.4
				EN								
19-08-2017	FEX_HC3	MPS	260	BE	23:40	70	12.2630	126	19.3050	220	207	Target depths = 207, 160, 50, 10 m
20-08-2017				EN	0:29	70	10.3260	126	19.1460	219		
20-08-2017	FEX_HC3	MWT	261	BE	0:43	70	9.8630	126	19.1030	218		Screen capture: D20170819_T225758_Image.jpg
				BO	0:55	70	10.5210	126	19.4590	218	200	
				UP	1:15	70	11.4960	126	20.0320	219		
				EN	1:19	70	11.5440	126	19.9620	220		
20-08-2017	FEX_HC	UCTD	262	BE	1:50							About 0150 picking up at CTD station
				EN	3:02	70	18.6490	126	24.9010	248		
20-08-2017	FEX_HC4	CTD	263	BE	3:12	70	18.6260	126	24.6060	248		
				BO	3:22	70	18.5030	126	24.3580		243	at 30
				EN	3:28	70	18.4240	126	24.1580	243		
20-08-2017	AMG_03	ROS	264	BE	13:25	70	32.9180	122	54.0960	638		AG5 (JOIS)
				BO	13:40	70	36.6360	122	53.7840	626	628	drift!
				EN	14:13	70	32.1060	122	52.2210	581		Sound speed on EK80 changed from 1448 to 1455 m/s
20-08-2017	AMG_03	MPS	265	BE	14:34	70	33.3320	122	54.4870	649		Target depths = 635-300, 300-200, 200-100, 100-50, 50-0
				BO	14:50	70	33.0498	122	54.3169	645	635	
				EN	15:12	70	32.6964	122	54.0239			
20-08-2017	AMG_03	ROS	266	BE	15:34	70	33.1580	122	54.3850	646		
				BO	15:38	70	33.0460	122	54.3670		80	
				EN	15:50	70	32.8270	122	54.3200	640		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
20-08-2017	AMG_03	BON	267	BE	15:58	70	32.7750	122	54.3340	641		
				EN	16:23	70	33.5900	122	54.4330	648	200	
20-08-2017	AMG_03	BOX	268	BE	16:32	70	33.5310	122	54.4870	649		
				BO	16:39	70	33.3960	122	54.4150	648	648	Good core
				EN	16:46	70	33.2820	122	54.3570	648		
20-08-2017	AMG_03	BOX	269	BE	16:54	70	33.1250	122	54.3980	646		
				BO	17:01	70	32.9940	122	54.3790	645		Bad core, but can get everything needed from previous core.
				EN	17:08	70	32.8950	122	54.3140	643		
20-08-2017	AMG_03	W2A	270	BE	17:43	70	34.9890	122	55.5670	619		
				BO	18:02	70	33.7090	122	54.9890	640	640	Grabbed bottom a couple of times
				EN	18:22	70	32.7600	122	54.7410	642		
20-08-2017	AMG_02	ROS	271	BE	21:29	70	12.1190	123	9.3340	352		
				BO	21:40	70	11.9720	123	8.9470	353	347	alt = 5.2
				EN	21:55	70	11.7400	123	8.4080	356		
20-08-2017	AMG_02	MPS	272	BE	22:13	70	12.2850	123	9.9740	353		Target depths = 345-300, 300-200, 200-100, 100-50, 50-0
				BO	22:21	70	12.1860	123	9.6600	352		
				EN	22:30	70	12.0450	123	9.3490	354		
20-08-2017	AMG_02	ROS	273	BE	22:46	70	11.8400	123	8.8200	355		Hard hit on the side of the ship going in
				BO	22:52	70	11.7520	123	8.5490		80	
				EN	23:04	70	11.6050	123	8.1460	354		
20-08-2017	AMG_02	BON	274	BE	23:11	70	11.6130	123	8.0100	356	200	
				EN	23:35	70	12.1610	123	9.6170	353		
20-08-2017	AMG_02	BBT	275	BE	23:52	70	13.1630	123	11.7060	367		
				BO	0:18	70	12.0310	123	9.3550	353	353	
				EN	0:28	70	11.7730	123	8.6740	356		
21-08-2017	AMG_02	BBT	276	BE	0:45	70	11.3220	123	7.0700	358		
				BO	1:10	70	12.1130	123	9.6010	353	353	
				EN								
21-08-2017	AMG_02	W2A	277	BE	1:45	70	12.9220	123	11.5170	354		
				BO	1:54	70	12.3150	123	10.1400	353	353	Screen capture: D20170821_T021431_Image.jpg

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				EN	2:14	70	11.5800	123	8.1760	355		
21-08-2017	AMG_01	ROS	278	BE	13:26	70	3.6610	123	14.5730	211		UCTD #26 strapped to Rosette for comparison
				BO						213	207	
				EN	13:42	70	3.5230	123	14.2200			
21-08-2017	AMG_01	MPS	279	BE	13:49	70	3.4690	123	14.1280	210		target depths = 200-150, 150-100, 100-50, 50-0 m
				BO	13:53	70		123			200	
				EN	13:58	70	3.3750	123	13.9060	208		
21-08-2017	AMG_01	ROS	280	BE	14:20	70	3.7070	123	14.5300	210		2nd cast; UCTD #26 mounted on frame for this cast too
				BO	14:26	70	3.6590	123	14.3530	212	80	
				EN	14:37	70	3.5650	123	14.0660	211		
21-08-2017	AMG_01	BON	281	BE	14:45	70	3.5540	123	13.8780	211		
				EN	15:09	70	4.1870	123	15.3790	212		
23/08/2017	BPT_01	ROS	282	BE	13:54	69	41.8900	123	46.0300	74		alt = 2.8, samp #s = 350-361 12 bottles
				BO	13:59	69	41.8900	123	46.0300		71	
				EN	14:09	69	41.8600	123	46.0900			
23/08/2017	BPT_01	MPS	283	BE	14:19	69	41.8434	123	46.1438	75		Target depths: 70-50, 20-25, 25-0 m and surface
				BO	14:21	69	41.8393	123	46.1603	75	70	
				EN	14:24	69	41.8340	123	46.1852	75		
23/08/2017	BPT_01	BON	284	BE	14:36	69	41.9126	123	46.2320	78	65	
				EN	14:52	69	41.7753	123	44.5781	63		
23/08/2017	BPT_01	BOX	285	BE	15:06	69	41.8968	123	46.5320	57		
				BO	15:07	69	41.8904	123	46.5377	57	57	
				EN	15:08	69	41.8822	123	46.5488	56		
23/08/2017	BPT_01	BOX	286	BE	15:15	69	41.8493	123	46.5868	50		
				BO	15:16	69	41.8474	123	46.5934	50	50	
				EN	15:17	69	41.8463	123	46.6026	49		box was half full with no water. Re-deployed box core.
23/08/2017	BPT_01	BOX	287	BE	15:27	69	41.9183	123	45.9722	73		
				BO	15:28	69	41.9083	123	45.9727	73	73	

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				EN	15:29	69	41.8995	123	45.9838	73		
23/08/2017	BPT_01	BBT	288	BE	15:44	69	41.8056	123	45.2654	54	54	
				BO	15:51	69	41.9546	123	46.2213	79	79	
				EN	16:01	69	42.0611	123	47.0610	77		
23/08/2017	BPT_01	BBT	289	BE	16:15	69	42.1983	123	47.9684	67	67	
				BO	16:21	69	42.0554	123	47.2318	77	77	
				EN	16:31	69	41.9571	123	46.3307	78		
23/08/2017	BPT_01	W2A	290	BE	16:46	69	41.8595	123	45.5928	74		Pulled tow early due to steep humps and ridges on the bottom
				BO	16:49	69	41.9608	123	46.3343	75	75	
				EN	17:03	69	42.1691	123	48.1546	58		
23/08/2017	BPT_02	ROS	291	BE	18:30	69	41.9800	123	26.2400	126		alt = 5, samples 362-363
				BO	18:35	69	41.9800	123	26.2300		121	
				EN	18:38	69	41.9700	123	26.2100			
23/08/2017	BPT_02	MPS	292	BE	18:47	69	41.9431	123	26.1475	128	120	target depths: 120-100, 100-50, 50-25, 25-0, surface
				BO	18:50	69	41.9341	123	26.1256	128	120	
				EN	18:55	69	41.9236	123	26.0933	129		
23/08/2017	BPT_02	ROS	293	BE	19:13	69	41.8800	123	26.0000	127		2nd cast, samples 364-375
				BO	19:16	69	41.8800	123	25.9800		80	
				EN	19:26	69	41.8600	123	25.9200			
23/08/2017	BPT_02	BON	294	BE	19:34	69	41.8793	123	25.7366	127	120	
				EN	19:46	69	41.9711	123	26.8842	124	120	
24/08/2017	BPT_02	ROS	295	BE	13:12	69	42.0300	123	26.3400	124		Resume station. No bottles.
				BO	13:18	69	42.0100	123	26.3900		118	
				EN	13:21	69	42.0000	123	26.4000			
24/08/2017	BPT_02	BOX	296	BE	13:29	69	41.9363	123	26.3613	126		
				BO	13:30	69	41.9269	123	26.3581	126	126	
				EN	13:32	69	41.9150	123	26.3488	127		
24/08/2017	BPT_02	BOX	297	BE	13:39	69	41.8631	123	26.3102	128		
				BO	13:40	69	41.8527	123	26.3056	128	128	
				EN	13:41	69	41.8416	123	26.3015	128		
24/08/2017	BPT_02	BBT	298	BE	14:00	69	41.9311	123	24.1019	134		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	14:05	69	41.9397	123	24.6633	137	137	
				EN	14:15	69	41.9147	123	25.5726	127		
24/08/2017	BPT_02	BBT	299	BE	14:28	69	41.9116	123	27.8100	123		
				BO	14:38	69	41.9122	123	26.5460	127	127	
				EN	14:48	69	41.9253	123	25.6250	128		
24/08/2017	BPT_02	W2A	300	BE	15:04	69	41.9512	123	24.2788	135		
				BO	15:09	69	41.9254	123	25.3174	130	130	
				EN	15:29	69	41.8800	123	28.1400	121		started trying out Taplog
24/08/2017	AMG_01	ROS	301	BE	18:18	70	3.6500	123	14.5500	211		redo cast to check after aborted 1st occupation
				BO	18:27	70	3.6700	123	14.5200		205	alt = 4.8
				EN	18:30	70	3.6400	123	14.5600			
24/08/2017	AMG_01	MPS	302	BE	18:37	70	3.5200	123	14.6800	211		
				BO	18:41	70	3.5500	123	14.7100	210	200	target depths: 200-150, 150-100, 100-50, 50-0, surface
				EN	18:47	70	3.5100	123	14.7100	209		
24/08/2017	AMG_01	BON	303	BE	18:57	70	3.4800	123	14.6400	210	200	
				EN	19:15	70	4.0900	123	14.2300	215		
24/08/2017	AMG_01	BOX	304	BE	19:33	70	3.5300	123	14.5800	210		
				BO	19:35	70	3.5200	123	14.5500	211	211	
				EN	19:38	70	3.5100	123	14.5100	210		
24/08/2017	AMG_01	BOX	305	BE	19:45	70	3.4700	123	14.4900	210		
				BO	19:47	70	3.4600	123	14.5100	209	209	
				EN	19:49	70	3.4500	123	14.5100	211		
24/08/2017	AMG_01	BBT	306	BE	20:04	70	3.0900	123	12.4000	208		
				BO	20:13	70	3.3600	123	13.4100	208	208	
				EN	20:23	70	3.5800	123	14.1100	211		
24-08-2017	AMG_01	BBT	307	BE	20:37	70	3.2600	123	14.0300	207		
				BO	20:45	70	3.6400	123	14.4200	211	211	
				EN	20:55	70	3.9100	123	14.8000	211		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
24-08-2017	AMG_01	W2A	308	BE	21:14	70	4.5300	123	16.0800	210		Marport froze on monitor- John could not see the net touching bottom. Did not collect door spread + vertical weight info as a result
				BO	21:21	70	4.0800	123	15.2200	213		
				EN	21:41	70	3.2800	123	13.5600	207		
25-08-2017	BPT_03	ROS	309	BE	13:04	69	42.0200	123	11.7500	42		ALT=6
				BO	13:11	69	42.0200	123	11.6900		31	
				EN	13:15	69	42.0100	123	11.5400			
25-08-2017	BPT_03	MPS	310	BE	13:23	69	41.9800	123	11.4300	38		targeted depths:35-20; 20-10; 10-0, surface
				BO	13:25	69	41.9800	123	11.4000	39	32	
				EN	13:27	69	41.9800	123	11.3700	41		
25-08-2017	BPT_03	BON	311	BE	13:36	69	41.9900	123	11.1900	38	30	
				EN	13:50	69	42.5000	123	11.3300	41		
25-08-2017	BPT_03	BOX	312	BE	14:06	69	42.0200	123	11.8300	42		
				BO	14:07	69	42.0200	123	11.8200	42	42	
				EN	14:08	69	42.0200	123	11.8000	42		
25-08-2017	BPT_03	BOX	313	BE	14:15	69	42.0100	123	11.6500	41		
				BO	14:16	69	42.0100	123	11.6400	41	41	
				EN	14:17	69	42.0100	123	11.6200	41		
25-08-2017	BPT_03	BBT	314	BE	14:44	69	42.1300	123	11.3900	40		
				BO	14:47	69	42.2300	123	11.3700	40	40	
				EN	14:57	69	42.5600	123	11.3900	42		
25-08-2017	BPT_03	BBT	315	BE	15:05	69	42.5500	123	11.4700	42		
				BO	15:11	69	42.8000	123	11.3500	44	44	
				EN	15:21	69	43.1100	123	11.2100	45		
25-08-2017	BPT_03	W2A	316	BE	15:37	69	43.6100	123	10.8600	41		
				BO	15:40	69	43.4100	123	11.0400	44	44	
				EN	16:01	69	42.3700	123	11.4400	41		
25-08-2017	BPT_HC	UCTD	317	BE	16:39	69	42.1500	123	11.0800			TO YO #17
				EN	17:10	69	41.9500	123	23.1900			
25-08-2017	BPT_HC1	ROS	318	BE	17:24	69	42.0300	123	25.3100	127		NO BOTTLES

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	17:30	69	41.9800	123	25.2200		123	ALT 4.5
				EN	17:32	69	41.9600	123	25.2000			
25-08-2017	BPT_HC1	MPS	319	BE	17:48	69	41.9000	123	24.9800	131		Target depths:120, 90, 75, 28, 9
				BO	17:53	69	42.0000	123	25.7600	127	127	
				EN	18:23	69	42.1800	123	29.1100	127		
25-08-2017	BPT_HC1	MWT	320	BE	19:14	69	41.9800	123	31.8200	116		
				BO	19:25	69	41.9400	123	29.9600	120	40	
				UP	19:41	69	41.9300	123	27.3800			
				EN	19:47	69	41.8800	123	26.9300	126		
25-08-2017	BPT_HC2	UCTD	321	BE	20:04	69	41.9200	123	25.1200			TOYO #18
				EN	21:00	69	41.9300	123	48.0300			
25-08-2017	BPT_HC2	ROS	322	BE	21:48	69	42.6600	123	38.3600	97		NO BOTTLES
				BO	21:54	69	42.6200	123	38.3100		91	ALT 5.7
				EN	21:56	69	42.6000	123	38.2900			
25-08-2017	BPT_HC2	MPS	323	BE	22:08	69	42.5300	123	38.6000	93		TARGET DEPTHS: 85, 80, 65, 35, 10
				BO	22:14	69	42.3500	123	39.0800	95	95	
				EN	22:31	69	41.8300	123	40.3500	96		
26-08-2017	DEX_HC1	ROS	324	BE	18:24	69	23.4800	123	40.5500	39		NO BOTTLES
				BO	18:30	69	23.4800	123	40.5100		35	ALT=5.0 m
				EN	18:31	69	23.4800	123	40.5100			
26-08-2017	DEX_HC1	MPS	325	BE	18:40	69	23.5500	123	40.4400	41		TARGET DEPTHS: 35, 32, 25, 18, 8, 2
				BO	18:44	69	23.6760	123	40.4000	46	35	
				EN	19:09	69	24.6800	123	40.0700	58		
26-08-2017	DEX_HC1	BON	326	BE	19:21	69	25.0400	123	39.6500	59	35	
				EN	19:38	69	24.4100	123	39.9100	56		
26-08-2017	DEX_HC	UCTD	327	BE	19:48	69	23.5900	123	40.5600	44		Between breakpoints 1 and 2
				EN	20:23	69	29.7900	123	36.4000	68		BREAKPOINT IN HC LINE
26-08-2017	DEX_HC2	ROS	328	BE	20:45	69	29.8100	123	36.3700	68		
				BO	20:50	69	29.7800	123	36.4500		64	
				EN	20:52	69	29.7700	123	36.4800			
26-08-2017	DEX_HC2	MPS	329	BE	21:08	69	29.5500	123	36.8100	70		TARGETS: 63, 61, 35, 25, 15, 2
				BO	21:12	69	29.3700	123	36.9300	71	61	
				EN	21:40	69	28.4400	123	37.4800	80		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
26-08-2017	DEX_HC2	MWT	330	BE	21:58	69	27.8200	123	38.0500	84		
				BO	22:06	69	28.1300	123	37.7800	88	50	
				UP	22:26	69	29.3800	123	36.9000	71		
				EN	22:32	69	29.4800	123	37.0300	71		
26-08-2017	DEX_HC	UCTD	331	BE	22:51	69	29.9300	123	36.3500	68		resumed HC line toyo between breakpoints 2 and 3
				EN	23:45	69	37.2200	123	31.8810	58		
27-08-2017	DEX_HC	UCTD	332	BE	13:17	69	48.9900	123	24.4300	124		Resumed HC line from last night
				EN	14:18	69	56.8900	123	19.3300	172		
27-08-2017	DEX_HC3	CTD	333	BE	14:54	70	0.4700	123	17.6500	165		Soaking for 3 min. Broke HC line to do sample. Strong winds so we did not use ROS at this break
				EN	15:05	70	0.4400	123	18.2800	158	144	
27-08-2017	DEX_HC3	MPS	334	BE	15:23	70	0.7400	123	17.7100	160		Targeted depths: 150, 125, 90, 55, 10 missed this log
				BO								
				EN	14:03	70	2.1200	123	15.4600	191		
27-08-2017	DEX_HC3	MWT	335	BE	16:22	70	2.6100	123	16.0800	189		
				BO	16:24	70	2.4400	123	16.1700	195	50	
				UP	16:44	70	1.4200	123	16.6900	166		
				EN	16:52	70	1.2700	123	17.3000	163		
27-08-2017	DEX_HC4	CTD	336	BE	18:43	70	12.1800	123	9.2200	352	342	near AMG_02
				EN	19:01	70	12.1000	123	9.7000			
27-08-2017	DEX_HC4	MPS	337	BE	19:06	70	12.5900	123	9.5300	352		
				BO	19:22	70	12.6000	123	8.4800	356	345	
				EN	20:09	70	14.1100	123	5.5700	391		
27-08-2017	DEX_HC4	MWT	338	BE	20:38	70	14.2800	123	7.5500	399		
				BO	20:48	70	13.5900	123	8.1400	377	310	
				UP	21:08	70	12.5700	123	9.0800	356		
				EN	21:21	70	12.4000	123	9.4500	354		
28-08-2017	DUS_10	ROS	339	BE	14:24	69	59.7000	117	31.1600	109		Samples 383-394
				BO	14:32	69	59.7500	117	31.1400		101	alt = 4.5
				EN	14:42	69	59.7700	117	31.1200			
28-08-2017	DUS_10	MPS	340	BE	14:50	69	59.7900	117	31.1000	106		Target depths: 100-50, 50-25, 25-0

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	14:55	69	59.8000	117	31.1100	106	100	
				EN	14:58	69	59.8100	117	31.1000	106		
28-08-2017	DUS_10	BON	341	BE	15:10	69	59.6500	117	31.0900	105	100	
				EN	15:27	69	59.0500	117	30.7800	109		
28-08-2017	DUS_10	BOX	342	BE	15:44	69	59.7500	117	31.0500	104		Bottom is too rough to deplot BBT at this station. Searched for a reasonable bottom for the start of today.
				BO	15:45	69	59.7500	117	31.0500	103	103	First box core attempt was not usable. Redo.
				EN	15:47	69	59.7600	117	31.0500	103		
28-08-2017	DUS_10	BOX	343	BE	15:55	69	59.8000	117	31.0200	99		
				BO	15:57	69	59.8100	117	31.0200	99	99	
				EN	15:58	69	59.8200	117	31.0200	99		
28-08-2017	DUS_10	BOX	344	BE	16:10	69	59.8600	117	31.0200	98		
				BO	16:11	69	59.8600	117	31.0300	99	99	
				EN	16:12	69	59.8700	117	31.0400	99		
28-08-2017	DUS_10	W2A	345	BE	16:29	70	0.1300	117	31.4900	104		Bottom is too ice-scoured for BBT. May not get a full tow with W2A but will try since we could not find good bottom.
				BO	16:35	69	59.7900	117	31.1100	106		
				EN	16:53	69	58.9200	117	30.2300	101		
28-08-2017	DUS_09	ROS	346	BE	18:17	69	58.2800	117	43.8000	198		147
				BO	18:25	69	58.3000	117	43.9100		196	alt = 5.1
				EN	18:29	69	58.3200	117	43.9400			
28-08-2017	DUS_09	MPS	347	BE	18:36	69	58.3600	117	44.0400	204		Target depths: 195-150, 150-100, 100-50, 50-0
				BO	18:40	69	58.3900	117	44.0900	205	195	
				EN	18:44	69	58.4200	117	44.1500	206		
28-08-2017	DUS_09	BON	348	BE	18:56	69	58.4500	117	43.9800	202		
				EN	19:14	69	57.8400	117	43.8500	203	200	
29-08-2017	DUS_09	ROS	349	BE	13:10	69	58.4800	117	43.8600	199		Samples 395-397
				BO	13:18	69	58.6400	117	43.8800		189	alt = 4.5
				EN	13:24	69	58.7300	117	43.9500			

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
29-08-2017	DUS_09	ROS	350	BE	13:51	69	58.0700	117	43.5900	197		Samples 398-409
				BO	13:57	69	58.1500	117	43.5700		80	
				EN	14:05	69	58.3000	117	43.5800			
29-08-2017	DUS_09	BOX	351	BE	14:17	69	58.5300	117	43.5400	193		Did not trigger
				BO	14:19	69	58.5600	117	43.5600	191	191	
				EN	14:22	69	58.6000	117	43.6000	191		Cannotr deploy again due to high winds. Only one good core
29-08-2017	DUS_09	BOX	352	BE	14:26	69	58.6900	117	43.5900	187		
				BO	14:28	69	58.7300	117	43.5900	186	186	
				EN	14:31	69	58.7700	117	43.6100	185		
29-08-2017	DUS_09	BBT	353	BE	14:49	69	59.6200	117	44.8000	209		
				BO	15:06	69	58.9500	117	44.3900	203	203	15:33
				EN	15:16	69	58.6000	117	44.1200	202		
29-08-2017	DUS_09	BBT	354	BE	15:30	69	58.6900	117	43.9900	197		
				BO	15:40	69	58.2900	117	43.9000	199	199	
				EN	15:50	69	58.9800	117	43.8400	199		
29-08-2017	DUS_09	W2A	355	BE	16:09	69	57.4300	117	43.4800	195		
				BO	16:15	69	57.9500	117	43.8100	199		
				EN	16:35	69	58.9400	117	44.2700	199		
29-08-2017	DUS_08	ROS	356	BE	18:36	69	56.1000	118	1.1600	336		Samples 410-415
				BO	18:46	69	56.2400	118	1.2800		333	9.5
				EN	18:58	69	56.3500	118	1.4900			
29-08-2017	DUS_08	MPS	357	BE	19:04	69	56.4300	118	1.5100	335		Target depths: 326-300, 300-200, 200-100, 100-50, 50-0
				BO	19:10	69	56.5000	118	1.5400	335	335	
				EN	19:18	69	56.5700	118	1.6200	335		
29-08-2017	DUS_08	ROS	358	BE	19:31	69	56.7100	118	1.8300	337		Samples 416-426
				BO	19:36	69	56.0000	118	1.0000		80	
				EN	19:45	69	56.8500	118	2.0400	336		Changed sound speed to 1450
29-08-2017	DUS_08	BON	359	BE	19:53	69	56.8900	118	2.1900	335	200	
				EN	20:17	69	56.1700	118	0.8100	349		
29-08-2017	DUS_08	BBT	360	BE	20:31	69	55.2400	117	59.4500	348		
				BO	20:43	69	55.7300	118	0.1000	349	349	

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				EN	20:53	69	56.0500	118	0.5000	349		
29-08-2017	DUS_08	BBT	361	BE	21:06	69	56.3400	118	0.8200	348		
				BO	21:17	69	56.7400	118	1.3800	347	347	
				EN	21:27	69	57.0400	118	1.7800	346		
29-08-2017	DUS_08	W2A	362	BE	21:50	69	57.5400	118	2.4400	344		
				BO	21:59	69	56.9500	118	1.6500	347	347	
				EN	22:19	69	56.0700	118	0.4700	349		
29-08-2017	DUS_08	BOX	363	BE	22:51	69	56.2000	118	1.1300	343		Moved to last because wind was strong earlier today and now has died down enough to deploy equipment
				BO	22:55	69	56.2500	118	1.0900	346	346	
				EN	22:58	69	56.2900	118	1.0700	349		
29-08-2017	DUS_08	BOX	364	BE	23:06	69	56.3800	118	1.0100	350		
				BO	23:10	69	56.4200	118	0.9700	349	349	
				EN	23:14	69	56.4600	118	0.9700	348		
30-08-2017	DUS_07	ROS	365	BE	13:08	69	54.2200	119	19.8800	499		Samples 417-422 118
				BO	13:21	69	54.2200	119	19.4800		496	alt = 5.2
				EN	13:33	69	54.1600	119	19.1400			
30-08-2017	DUS_07	MPS	366	BE	13:45	69	54.2000	118	20.0500	499		Target depths: 493-300, 300-200, 200-100, 100-50, 50-0
				BO	13:53	69	54.2100	118	19.7400	501	493	
				EN	14:07	69	54.1500	118	19.2600	502		
30-08-2017	DUS_07	ROS	367	BE	14:16	69	54.1000	118	18.9700	503		Samples 423-434; lost pH buffer bottle
				BO	14:20	69	54.0700	118	18.8500		80	
				EN	14:31	69	54.0000	118	18.4900			
30-08-2017	DUS_07	BON	368	BE	14:39	69	53.9900	118	18.2600	501	200	
				EN	15:00	69	54.2700	118	20.0500	498		
30-08-2017	DUS_07	BOX	369	BE	15:07	69	54.3100	118	20.0400	499		
				BO	15:12	69	54.3000	118	19.8700	501	501	
				EN	15:18	69	54.2900	118	19.6800	503		
30-08-2017	DUS_07	BOX	370	BE	15:26	69	54.2500	118	19.4200	502		
				BO	15:32	69	54.2200	118	19.2300	503	503	
				EN	15:38	69	54.2000	118	19.0200	504		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
30-08-2017	DUS_07	BBT	371	BE	16:00	69	52.7600	118	19.5300	502		
				BO	16:23	69	53.7400	118	19.5700	502	502	
				EN	16:33	69	54.0600	118	19.8700	500		
30-08-2017	DUS_07	BBT	372	BE	16:53	69	53.7000	118	19.4000	501		
				BO	17:18	69	54.6700	118	20.5500	497	497	
				EN	17:28	69	54.9800	118	20.9400	498		
30-08-2017	DUS_07	W2A	373	BE	17:53	69	55.7300	118	21.8200	498		Screen capture of large [] @ ~ 350 m off bottom D20170830_T171150-Image
				BO	18:06	69	54.9600	118	20.6300	498	498	
				EN	18:26	69	54.0200	118	19.7700	500		
30-08-2017	DUS_06	ROS	374	BE	20:07	69	51.6300	118	44.1800	284		Aborted. Computer blue screen just below 150 m; started new cast from surface (event 375)
				BO								
				EN								
30-08-2017	DUS_06	ROS	375	BE	20:21	69	51.5400	118	44.0500	282		Samples 435-438
				BO	20:26	69	51.5000	118	44.0200		276	alt = 4.6
				EN	20:35	69	51.4400	118	43.9600			
30-08-2017	DUS_06	MPS	376	BE	20:41	69	51.3800	118	43.9300	279		Target depths: 274-200, 200-150, 150-100, 100-50, 50-0
				BO	20:47	69	51.3500	118	43.8800	282	200	
				EN	20:55	69	51.3100	118	43.8000	282		
30-08-2017	DUS_06	ROS	377	BE	21:04	69	51.2700	118	43.7000	281		Samples 439-449
				BO	21:11	69	51.2400	118	43.6800		80	
				EN	21:19	69	51.1900	118	43.5900			
30-08-2017	DUS_06	BON	378	BE	21:27	69	51.1900	118	43.4900	284		
				EN	21:54	69	51.8900	118	45.2400	292	200	
30-08-2017	DUS_06	BOX	379	BE	22:12	69	51.4900	118	44.5200	284		
				BO	22:15	69	51.4800	118	44.4800	284	284	
				EN	22:18	69	51.4600	118	44.4300	283		
30-08-2017	DUS_06	BOX	380	BE	22:25	69	51.4300	118	44.3100	281		
				BO	22:28	69	51.4100	118	44.2700	282	282	
				EN	22:33	69	51.4000	118	44.2200	281		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
30-08-2017	DUS_06	BBT	381	BE	22:50	69	50.5800	118	43.2400	277		
				BO	23:05	69	51.3400	118	43.8700	280	280	
				EN	23:15	69	51.6200	118	44.1800	286		
30-08-2017	DUS_06	BBT	382	BE	23:36	69	51.0500	118	43.4300	288	288	
				BO	23:49	69	51.5300	118	44.2800	284	284	
				EN	23:59	69	51.7900	118	44.9200	292		
30-08-2017	DUS_06	W2A	383	BE	0:20	69	52.0000	118	45.4900	294		Hung up on bottom; reset the net but kept samples
				BO	0:28	69	51.5800	118	44.4000	285	285	
				EN	0:35	69	51.2800	118	43.0000	279		
30-08-2017	DUS_06	W2A	384	BE	1:03	69	50.4400	118	43.9200	281		
				BO	1:12	69	51.1300	118	43.8500	279	279	
				EN								
31-08-2017	DUS_05	ROS	385	BE	14:05	69	47.2700	119	23.9000	411		Samples 450-454; acc. stopped acq. During soak. Restarted with same file name/event
				BO	14:15	69	47.1900	119	24.2500		404	alt = 7.4
				EN	14:26	69	47.1300	119	24.5300			
31-08-2017	DUS_05	MPS	386	BE	14:32	69	47.0900	119	24.7800	418		Target depths: 414-300, 300-200, 200-100, 100-50, 50-0
				BO	14:40	69	47.0400	119	25.0000	425	425	
				EN	14:52	69	46.9600	119	25.2900	427		
31-08-2017	DUS_05	ROS	387	BE	15:07	69	47.0900	119	24.1400	415		Samples 455-466
				BO	15:12	69	47.0600	119	24.3200		80	
				EN	15:21	69	47.0000	119	24.6700			
31-08-2017	DUS_05	BON	388	BO	15:29	69	46.9400	119	24.8400	425	200	
				EN	15:51	69	47.3300	119	23.1400	407		
31-08-2017	DUS_05	BBT	389	BE	16:09	69	46.0300	119	21.3200	410		Too windy to deploy box core today. We cannot collect sediment samples at this station
				BO	16:33	69	46.8000	119	23.6100	416	416	
				EN	16:43	69	47.0600	119	24.3100	416		
31-08-2017	DUS_05	BBT	390	BE	17:06	69	48.1700	119	27.4300	429		

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	17:31	69	47.3700	119	25.2700	415	415	
				EN	17:41	69	47.1200	119	24.5800	416		
31-08-2017	DUS_05	W2A	391	BE	18:10	69	45.9900	119	21.4800	410		
				BO	18:22	69	46.6400	119	23.2200	417	417	
				EN	18:42	69	47.3500	119	25.3000	416		
31-08-2017	DUS_04	ROS	392	BE	20:55	69	43.3600	119	56.5100	353		Samples 467-471
				BO	21:06	69	43.3300	119	56.7700		344	alt = 7.9
				EN	21:18	69	43.3000	119	57.0700			
31-08-2017	DUS_04	MPS	393	BE	21:24	69	43.2800	119	57.2700	352		D2017_t212139_Image.jpg; lots of biomass
				BO	21:31	69	43.2500	119	57.4300	352	352	
				EN	21:40	69	43.2000	119	57.6900	352		
31-08-2017	DUS_04	ROS	394	BE	21:55	69	43.4800	119	56.5600	355		Samples 472-482
				BO	21:59						80	
				EN	22:10	69	43.4100	119	56.9500			
31-08-2017	DUS_04	BON	NA									Cancelled - engine needs head gasket repair
01-09-2017	DUS_04	ROS	395	BE	13:09	69	43.3600	119	57.3800	352		No samples; 20 kn, 1 m seas
				BO	13:19	69	43.4000	119	57.7600		342	alt = 10.5
				EN	13:26	69	43.4200	119	58.0100			
01-09-2017	DUS_04	BON	396	BE	13:34	69	43.3900	119	58.1500	355		continued sampling once engine was repaired
				EN	13:58	69	42.9900	119	56.1800	348	348	
01-09-2017	DUS_04	W2A	397	BE	14:15	69	42.6600	119	53.5400	351		put over the side. No beam trawls or box core.
				BO	14:25	69	43.1800	119	55.3300	351	351	
				EN	14:45	69	43.6400	119	57.7300	353		
01-09-2017	DUS_03	ROS	398	BE	19:05	69	39.3900	120	34.4000	221		Samples 483-486
				BO	19:12	69	39.5100	120	34.6500		211	alt = 10
				EN	19:20	69	39.6100	120	34.8700			
01-09-2017	DUS_03	MPS	399	BE	19:36	69	39.2300	120	34.3900	215		Target depths: 200-150, 150-100, 100-50, 50-0
				BO	19:42	69	39.3400	120	34.5800	216	216	

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				EN	19:51	69	39.4500	120	34.8400	217		
01-09-2017	DUS_03	ROS	400	BE	20:04	69	39.2400	120	34.4500	214		Samples 487-498
				BO	20:11	69	39.3700	120	34.6500		80	
				EN	20:19	69	39.5000	120	34.9200			
01-09-2017	DUS_03	BON	401	BE	20:26	69	39.5900	120	35.0800	219		
				EN	20:48	69	39.1000	120	33.4800	219	219	
01-09-2017	DUS_03	W2A	402	BE	21:20	69	38.4900	120	32.9900	211		Wind is strong still so we are not able to deploy the box core of BBT nets
				BO	21:25	69	38.8000	120	33.2400	216	216	
				EN	21:45	69	39.5200	120	35.1100	218		
02-09-2017	DUS_HC1	ROS	403	BE	14:39	69	42.0100	120	10.2300	292		No samples; wind 20 kn, 2 m seas
				BO	14:49	69	42.1700	120	10.4700		279	alt = 1.3, wire angle 15°
				EN	14:56	69	42.2900	120	10.6700			
02-09-2017	DUS_HC1	MPS	404	BE	15:05	69	42.9600	120	10.6800	294		Target depths: 250, 110, 35, 10
				BO	15:18	69	42.7000	120	12.1200	296	296	
				EN	16:01	69	43.4300	120	16.7800	276		
02-09-2017	DUS_HC1	ROS	405	BE	22:37	69	56.3100	118	0.8200	349		No samples; wind 15 kn, seas 1.5 m
				BO	22:46	69	56.4400	118	0.8000		336	alt = 12
				EN	22:54	69	56.5500	118	0.8000			
02-09-2017	DUS_HC2	MPS	406	BE	23:02	69	56.5600	118	0.7600	346		10
				BO	23:15	69	56.2100	117	59.8000	348	348	
				EN	23:58	69	54.7500	117	56.6000	353		
02-09-2017	DUS_HC2	MWT	407	BE	0:13	69	54.6400	117	55.7200	345		
				BO	0:20	69	54.8900	117	56.3900	348	40	
				UP	0:40	69	55.6400	117	58.4400	352		
				EN	0:47	69	55.7700	117	58.7400	350		
03-09-2017	MTI_03	ROS	408	BE	15:49	71	22.1600	117	28.5000	145		Samples 499-501
				BO	15:56	71	22.1100	117	28.6200		143	alt = 4.5
				EN	15:59	71	22.1000	117	28.6800			
03-09-2017	MTI_03	MPS	409	BE	16:07	71	22.1000	117	28.8400	149		Target depths: 140-100, 100-50, 50-25.
				BO	16:10	71	22.1000	117	28.9000	149	140	Lots in surface layers: D20170903_T142738_image.jpg, D20170903_T160813_Image.jpg

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				EN	16:17	71	22.1100	117	29.0500	148		
03-09-2017	MTI_03	MPS	410	BE	16:23	71	22.1100	117	29.1800	148		There's an issue with the flow meter for this deployment. Works intermittently.
				BO	16:26	71	22.1100	117	29.2600	148	140	
				EN	16:31	71	22.1200	117	29.3400	149		
03-09-2017	MTI_03	ROS	411	BE	16:45	71	22.0900	117	28.3100	148		Samples 502-513
				BO	16:48	71	22.0900	117	28.3800		80	
				EN	16:57	71	22.1100	117	28.5400			
03-09-2017	MTI_03	BON	412	BE	17:04	71	22.0600	117	28.9500	152	140	
				EN	17:17	71	22.0400	117	30.4500	156		
03-09-2017	MTI_03	BOX	413	BE	17:32	71	22.1400	117	28.2400	146		
				BO	17:33	71	22.1600	117	28.3100	144	144	
				EN	17:35	71	22.1700	117	28.3700	143		
03-09-2017	MTI_03	BOX	414	BE	17:41	71	22.1900	117	28.5500	145		
				BO	17:43	71	22.1900	117	28.5900	146	146	
				EN	17:45	71	22.1900	117	28.6200	146		
03-09-2017	MTI_03	BBT	415	BE	18:08	71	21.5800	117	34.0300	154		
				BO	18:21	71	21.8800	117	32.1400	154	154	
				EN	18:31	71	21.9900	117	31.2800	156		
03-09-2017	MTI_03	BBT	416	BE	18:44	71	21.8300	117	32.9200	143		
				BO	18:57	71	22.0100	117	30.9000	156	156	
				EN	19:08	71	22.0700	117	29.7900	152		
03-09-2017	MTI_03	W2A	417	BE	19:27	71	21.6700	117	33.2300	152		
				BO	19:35	71	21.9300	117	31.8400	154	154	
				EN	19:55	71	22.0900	117	28.7500	150		
03-09-2017	MTI_04	ROS	418	BE	20:50	71	17.9200	117	20.0500	176		Samples 514-516
				BO	20:57	71	17.9500	117	20.0600		170	
				EN	21:02	71	17.9600	117	20.0700			
03-09-2017	MTI_04	MPS	419	BE	21:09	71	17.9600	117	20.0400	174		Target depths: 165-100, 100-50, 50-25, 25-0
				BO	21:12	71	17.9700	117	20.0400	174	174	
				EN	21:17	71	17.9700	117	20.0300	174		
03-09-2017	MTI_04	ROS	420	BE	21:26	71	17.9800	117	20.0500	173		Samples

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	21:30	71	18.0100	117	19.9900		80	
				EN	21:39	71	18.0200	117	19.9000			
03-09-2017	MTI_04	BON	421	BE	21:46	71	18.0800	117	19.5500	173	165	
				EN	22:03	71	18.3100	117	17.8000			
03-09-2017	MTI_04	BOX	422	BE	22:19	71	17.9500	117	20.2200	174		
				BO	22:21	71	17.9300	117	20.1900	175	175	
				EN	22:23	71	17.9200	117	20.1800	175		
03-09-2017	MTI_04	BOX	423	BE	22:29	71	17.9000	117	20.1400	176		
				BO	22:31	71	17.8900	117	20.1300	176	176	
				EN	22:33	71	17.8900	117	20.1100	176		
03-09-2017	MTI_04	BBT	424	BE	22:50	71	17.3100	117	22.4200	183		
				BO	23:03	71	17.8000	117	20.8000	174	174	
				EN	23:13	71	18.0000	117	20.0000	173		
03-09-2017	MTI_04	BBT	425	BE	23:26	71	17.7800	117	21.0300	172		
				BO	23:37	71	18.0500	117	19.5500	174	174	
				EN	23:47	71	18.1800	117	18.5700	174		
03-09-2017	MTI_04	W2A	426	BE	0:05	71	18.5000	117	16.5700	170		
				BO	0:10	71	18.3100	117	17.6400	175	175	
				EN	0:30	71	17.8400	117	20.4500	175		
04-09-2017	MTI_06	ROS	427	BE	13:13	71	24.0900	116	31.3900	207		Samples 529-532
				BO	13:21	71	24.1000	116	31.2200		203	alt = 5
				EN	13:26	71	24.1000	116	31.0600			
04-09-2017	MTI_06	MPS	428	BE	13:38	71	24.0800	116	31.8500	204		Target depths: 200-150, 150-100, 100-50, 50-0
				BO	13:42	71	24.0800	116	31.7600	205	205	waves!
				EN	13:48	71	24.0900	116	31.5900	206		
04-09-2017	MTI_06	ROS	429	BE	13:56	71	24.1200	116	31.3400	206		Samples 533-544
				BO	14:01	71	24.1300	116	31.1500		80	Chl max = 49, mixed layer = 10 m
				EN	14:10	71	24.1500	116	30.8200			
04-09-2017	MTI_06	BON	430	BE	14:19	71	24.1700	116	30.8500	208	200	
				EN	14:36	71	23.9500	116	32.4100	206		
04-09-2017	MTI_06	BOX	431	BE	14:47	71	24.1200	116	31.3900	206		Box core was not good - too rocky so it was discarded

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				BO	14:49	71	24.1100	116	31.3300	204	204	
				EN	14:52	71	24.1100	116	31.2200	208		
04-09-2017	MTI_06	BOX	432	BE	14:55	71	24.1000	116	31.1600	209		rocks
				BO	14:57	71	24.1000	116	31.0900	209	209	
				EN	15:00	71	24.1000	116	31.0000	210		
04-09-2017	MTI_06	BOX	433	BE	15:12	71	23.8900	116	32.7700	205		Box core again not good rocky bottom
				BO	15:15	71	23.8800	116	32.6900	206	206	
				EN	15:17	71	23.8600	116	32.6200	207		
04-09-2017	MTI_06	W2A	434	BE	15:42	71	23.5700	116	36.4000	197		Not deploying the BBT due to rocky bottom conditions. Captain John is worried it will get hung up on rocks
				BO	15:47	71	23.6200	116	34.9300	207	207	net was briefly hung up but OK to finish the tow
				EN	16:06	71	23.9600	116	32.3100	206		
04-09-2017	MTI_05	ROS	435	BE	18:48	71	14.1200	117	16.0500	283		Samples 545-548 Chl max 50
				BO	18:58	71	14.1200	117	15.9500		278	alt = 5
				EN	19:06	71	14.0900	117	15.8300			
04-09-2017	MTI_05	MPS	436	BE	19:14	71	14.0300	117	15.7300	285		wind!
				BO	19:19	71	14.0000	117	15.6600	286	286	
				EN	19:27	71	13.9800	117	15.5300	287		
04-09-2017	MTI_05	ROS	437	BE	19:35	71	13.9500	117	15.4000	290		Samples 549-560
				BO	19:41	71	13.9300	117	15.3300		80	
				EN	19:50	71	13.8800	117	15.2000			
04-09-2017	MTI_05	BON	438	BE	19:59	71	14.1200	117	15.3900	283	283	
				EN	20:21	71	13.9700	117	17.5900	283		
04-09-2017	MTI_05	BOX	439	BE	20:33	71	14.0700	117	15.9500	284		
				BO	20:36	71	14.0500	117	15.9300	284	284	
				EN	20:39	71	14.0400	117	15.8700	284		
04-09-2017	MTI_05	BOX	440	BE	20:46	71	14.0300	117	15.7400	285		Not a good box core (dumped). Redo.
				BO	20:49	71	14.0200	117	15.7000	285	285	
				EN	20:53	71	14.0200	117	15.6400	285		
04-09-2017	MTI_05	BOX	441	BE	20:58	71	14.0100	117	15.5500	287	287	
				BO	21:01	71	14.0000	117	15.5100	287	287	

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
				EN	21:02	71	14.0000	117	15.4900	288		
04-09-2017	MTI_05	BBT	442	BE	21:20	71	14.8200	117	11.7500	281		
				BO	21:34	71	14.4900	117	13.5300	281	281	
				EN	21:44	71	14.3600	117	14.4200	282		
04-09-2017	MTI_05	BBT	443	BE	22:00	71	14.4600	117	14.0400	280		
				BO	22:12	71	14.2000	117	15.4700	282	282	
				EN	22:22	71	14.6600	117	16.4600	282		
04-09-2017	MTI_05	W2A	444	BE	22:45	71	13.6800	117	18.7500	263		
				BO	22:54	71	13.9800	117	17.0000	283	283	
				EN	23:14	71	14.3800	117	14.2200	282		
05-09-2017	MTI_02	ROS	445	BE	13:08	71	15.2200	118	11.4000	224		Samples 561-564
				BO	13:18	71	15.2600	118	11.6300		217	alt = 5
				EN	13:24	71	15.2900	118	11.7800			
05-09-2017	MTI_02	MPS	446	BE	13:30	71	15.3200	118	11.8900	222		Target depths: 217-200, 200-150, 150-100, 100-50, 50-0
				BO	13:35	71	15.3500	118	12.0100	222	217	
				EN	13:42	71	15.3600	118	12.1600	221		
05-09-2017	MTI_02	ROS	447	BE	13:52	71	15.4000	118	12.4300	220		Samples 565-576
												Chl max 50, 30; mixed layer 15-30 m; 2 layer system (Pacific and strong river influence)
				BO	13:57	71	15.4300	118	12.5400		80	
				EN	14:05	71	15.4700	118	12.7300			
05-09-2017	MTI_02	BON	448	BE	14:12	71	15.4400	118	12.6600	221		
				EN	14:29	71	15.3700	118	10.9100	221	221	
05-09-2017	MTI_02	BOX	449	BE	14:41	71	15.2600	118	11.5500	223		
				BO	14:48	71	15.2800	118	11.5600	223		
				EN	14:45	71	15.3000	118	11.5900	222		
05-09-2017	MTI_02	BOX	450	BE	14:55	71	15.3600	118	11.8100	222		
				BO	14:57	71	15.3700	118	11.8700	221		
				EN	15:00	71	15.3800	118	11.9300	221		
05-09-2017	MTI_02	BBT	451	BE	15:22	71	15.1900	118	15.5300	222		
				BO	15:28	71	15.1700	118	14.6000	224	224	
				EN	15:38	71	15.1500	118	13.6200			

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
05-09-2017	MTI_02	BBT	452	BE	15:48	71	15.1300	118	12.4800	223		
				BO	16:00	71	15.1300	118	10.5400	221	221	
				EN	16:10	71	15.1200	118	9.5500	219		
05-09-2017	MTI_02	W2A	453	BE	16:28	71	15.0700	118	8.5100	219		
				BO	16:34	71	15.1100	118	10.1100	221	221	
				EN	16:54	71	15.1500	118	13.1600	223		
05-09-2017	MTI_01	ROS	454	BE	21:40	71	4.1800	119	20.8900	166		Samples 577-579
				BO	21:49	71	4.2800	119	21.0600		157	alt = 8
				EN	21:54	71	4.3300	119	21.1100			Blue screen during soak, restart with same cast #
05-09-2017	MTI_01	MPS	455	BE	21:59	71	4.3900	119	21.1400	166		Target depths: 160-150, 150-100, 100-50, 50-25, 25-0
				BO	22:03	71	4.4400	119	21.1800	166	160	
				EN	22:08	71	4.5000	119	21.2900	163		
05-09-2017	MTI_01	ROS	456	BE	22:16	71	4.6100	119	21.4300	165		Samples 580-591
				BO	22:21	71	4.6500	119	21.5300		80	
				EN	22:30	71	4.7500	119	21.6700			
05-09-2017	MTI_01	BON	457	BE	22:37	71	4.7600	119	21.8000	165	159	
				EN	22:58	71	4.1000	119	20.9500	167		
05-09-2017	MTI_01	BOX	458	BE	23:06	71	3.9400	119	20.7900	167		Weather is picking up a bit
				BO	23:08	71	3.9600	119	20.8000	167	167	
				EN	23:10	71	3.9900	119	20.8600	167		
05-09-2017	MTI_01	W2A	459	BE	23:32	71	4.8000	119	18.7800	165		
				BO	23:37	71	4.5600	119	19.6000	165	165	
				EN	23:57	71	3.9000	119	21.8400	165		
06-09-2017		DRIF	460	BE	11:20	70	23.5400	123	42.3600			de Billy Bob #700
06-09-2017		DRIF	461	BE	12:03	70	20.9600	123	57.1300			Billy Bob #701
06-09-2017		DRIF	462	BE	12:40	70	18.4800	124	11.2200			Billy Bob #702
06-09-2017		DRIF	463	BE	13:27	70	15.4900	124	28.0900			Billy Bob #703
07-09-2017		DRIF	464	BE	7:30	70	13.3300	124	48.7400	50		ID 696. Fuelling in Wise Bay - scheduled for 0800 MDT but delayed as barge re-ordered stops to fuel exposed site during calmer weather

Date UTC)	Station	Cast Type	Event Number	Time code	Time (UTC)	Lat Deg N	Lat Min	Lon Deg	Lon Min	Water Depth (m)	Max Depth (m)	Comments
07-09-2017		DRIF	465	BE	7:46	70	15.5500	124	48.5400	52		ID 697
07-09-2017		DRIF	466	BE	8:01	70	17.4700	124	47.9900	58		ID 698
07-09-2017		DRIF	467	BE	8:16	70	19.5300	124	47.8600	85		ID 699
09-09-2017	MTI_HC1	ROS	468	BE	15:20	71	15.2100	118	11.0600	222		Chl max 51; mixed layer 40 m deep
				BO	15:28	71	15.3100	118	10.7900		214	6.3
				EN	15:32	71	15.3700	118	10.7200			
09-09-2017	MTI_HC1	MPS	469	BE	15:40	71	15.4400	118	10.7400	219		10
				BO	15:48	71	15.2200	118	11.6300	223	215	
				EN	16:22	71	14.5000	118	14.1700	227		
09-09-2017	MTI_HC1	MWT	470	BE	16:45	71	14.4400	118	16.3400	222		
				BO	16:56	71	14.7900	118	14.4900	222	80	
				UP	16:16	71	15.2000	118	11.5100	224		
				EN	17:24	71	15.3500	118	10.6500	220		
09-09-2017	MTI_HC2	ROS	471	BE	19:49	71	17.8600	118	19.9000	179		
				BO	19:55	71	17.8900	118	19.8200		172	alt = 6.3
				EN	19:58	71	17.9000	118	19.8400			
09-09-2017	MTI_HC2	MPS	472	BE	20:07	71	17.8600	117	20.3500	175		
				BO	20:12	71	17.8200	117	20.8600	172	155	50.1, 10
				EN	20:42	71	17.7200	117	24.0800	150		
09-09-2017	MTI_HC2	MWT	473	BE	20:58	71	17.6900	117	24.6200	170		
				BO	21:13	71	17.8100	117	22.3600	167	110	
				UP	21:33	71	17.9300	117	19.4500	166		
				EN	21:39	71	17.9700	117	19.0700	178		
10-09-2017	MTI_HC3	ROS	474	BE	1:03	71	23.3200	116	38.0600	194		
				BO	1:11	71	23.4800	116	37.8300		189	alt = 2.7
				EN	1:15	71	23.5400	116	37.7300			
10-09-2017	MTI_HC3	MPS	475	BE	1:22	71	23.6900	116	37.2700	186		25
				BO	1:33	71	23.8700	116	35.7200	191	155	
				EN	2:00	71	24.3700	116	32.3200	196		
10-09-2017	MTI_HC3	MWT	476	BE	2:14	71	24.4300	116	31.0200	197		
				BO	2:20	71	24.2500	116	31.8800	200	80	
				UP	2:40	71	23.7400	116	34.8200	205		
				EN	2:46	71	23.7400	116	35.1600	202		

