

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2014 - 56

Book 2

DATE:

Mission: Aug 1st - Sept 11th 2014
From: Leg 1: Aug 1st - Aug 21st Leg 2: Aug 21st - Sept 11th to: This book: Aug 25th - Sept 16th 2014

VESSEL:

F/V FROSTI

PROJECT(S):

Beaufort Sea Marine Fishes Project (BSMF)

Fisheries and Oceans Canada, Central + Arctic Region

Fisheries and Oceans Canada

Project Lead: Jim Reist

Freshwater Institute
Winnipeg MB.

Institute of Ocean Sciences
Sidney, B.C.

Captain: John Roach First Officer: Ross Gordon
Engineer/Second Officer: Kelly Muller Third Officer: _____
Fishing Master: _____

Mission Participants / Agencies: FWI / IOS

Scientific Personnel: Chief Scientist: Andrew Majewski

Name	Watch	Cabin	Name	Watch	Cabin
<u>Andrew Majewski</u>	_____	_____	_____	_____	_____
<u>Carolina Giraldo</u>	_____	_____	_____	_____	_____
<u>Desmond Ruben</u>	_____	_____	_____	_____	_____
<u>Laure deMontety</u>	_____	_____	_____	_____	_____
<u>Ashley Stasko</u>	_____	_____	_____	_____	_____
<u>Kelly Young</u>	_____	_____	_____	_____	_____
<u>Michael Dempsey</u>	_____	_____	_____	_____	_____
<u>Andrea Niemi</u>	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Second leg of Mission: Chief Scientist: Shannon MacPhee

Name	Watch	Cabin	Name	Watch	Cabin
<u>Shannon MacPhee</u>	_____	_____	_____	_____	_____
<u>Sheila Atkinson</u>	_____	_____	_____	_____	_____
<u>Julie Henry</u>	_____	_____	_____	_____	_____
<u>Joseph Ellariak</u>	_____	_____	_____	_____	_____
<u>Laure deMontety</u>	_____	_____	_____	_____	_____
<u>Hugla Mailean</u>	_____	_____	_____	_____	_____
<u>Guillaume Maisterhans</u>	_____	_____	_____	_____	_____
<u>Michelle Kamula</u>	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Data logging computer: _____
Data acquisition program: _____
CTD deck unit make: _____ model: _____ serial number: _____

Primary CTD

Make: _____ model: _____ serial number: _____
Primary temperature serial number: _____
Primary conductivity serial number: _____
Secondary temperature serial number: _____
Secondary conductivity serial number: _____
Transmissometer: _____ Model: _____ s/n: _____
Fluorometer: Model _____ Cable gain: _____ P, S or NO pump?
Oxygen sensor: _____ Model: _____ s/n: _____ P, S or NO pump?
PAR sensor: _____ Model: _____ s/n: _____
Other sensors: _____ s/n: _____ P, S or NO pump?
Other sensors: _____ s/n: _____ P, S or NO pump?
Other sensors: _____ s/n: _____ P, S or NO pump?
Other sensors: _____ s/n: _____ P, S or NO pump?

Secondary CTD

Make: _____ model: _____ serial number: _____
Primary temperature serial number: _____
Primary conductivity serial number: _____
Secondary temperature serial number: _____
Secondary conductivity serial number: _____
Transmissometer: _____ Model: _____ s/n: _____
Fluorometer: Model _____ Cable gain: _____ P, S or NO pump?
Oxygen sensor: _____ Model: _____ s/n: _____ P, S or NO pump?
PAR sensor: _____ Model: _____ s/n: _____
Other sensors: _____ s/n: _____ P, S or NO pump?
Other sensors: _____ s/n: _____ P, S or NO pump?
Other sensors: _____ s/n: _____ P, S or NO pump?
Other sensors: _____ s/n: _____ P, S or NO pump?

CTD calibration bottle location (height above CTD in metres): _____

DAILY SCIENCE LOG

Month <u>AUGUST</u>				Year <u>2014</u>				Ship <u>FROSTI</u>			Page <u> </u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
25	WIS-01	ROS	294	BE	1306	70 06.278	125° 03 728	49		H.M.		
				BO	1311	70 06 281	125 03 802		45			
				EN	1318	70 06 272	125 03 893					
25	WIS-01	MPS	295	BE	1327	70 06.282	125 03.992	50.5			*bottom on echosounder looks "different" screenshot: "MS-01-25-aug-2014" different depositional environment than in Darnley Bay?	
				BO	1330	70 06.284	125 04.014		40	SPM		
				EN	1331	70 06.250	125 04.024					
25	WIS-01	BON	296	BE	1340	70 06.205	125 04.037	49		SPA	Sunny, 7/10 overcast, calm, wind ESE 15 knots	
				EN	1359	70 06.356	125 02.054					
25	WIS-01	BOX	297	BE	1413	70 06.160	125 03.816	53		SPA	BOX-201	
				BO	1414	70 06.151	125 03.834	54				
				EN	1416	70 06.148	125 03.855	54				
25	WIS-01	BOX	298	BE	1424	70 06.119	125 04.005	55		SPA	BOX-2032	
				BO	1425	70 06.116	125 04.034	54				
				EN	1427	70 06.112	125 04 064	54				
25	WIS-01	BBT	299	BE	1437	70 05.968	125 05.227	44		SPA	bbt-116	
				BO	1445	70 06.020	125 04.556	53				
				EN	1455	70 06.118	125 03.936	53				
25	WIS-01	W2A	300	BE	1520	70 06.276	125 01.070	48		SPA	W2A-0136 Kelp bomb. Hauled back early; net appeared to be dragging something → mud	
				BO	1520	70 06 276	125 01.070	48				

Event Type:

BOT = Bottle cast, no CTD
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ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes:

Transmissometer to be cleaned before each cast, do not use Ammonia products

DAILY SCIENCE LOG

Page _____

Month <u>Aug</u>				Year <u>2014</u>			Ship <u>Frosti</u>			Cruise ID <u>2014-56</u>		
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
25	WIS-01	WZA	300	EN	15:34	70 06.129	125 03.168	52			non-quantitative tow hauled back early, doors full down, hung up on huge kelp bunch	
25	WIS-02	ROS	301	BE	1730	70 10.411	124 50 071	44		H.M.	CHL max @ 30m	
				Bo	1732	70 10.387	124 50 106		40			
				EN	1740	70 10.339	124 50.314					
25	WIS-02	MPS	302	BE	1749	70 10.279	124 50.651	41		SAM	vertical tow: left net at layer interface until net A occurred	
				Bo	1751	70 10.271	124 50.692		35			
				EN	1753	70 10.257	124 50.778					
25	WIS-02	BON	303	BE	1802	70 10.187	124 50.729	40.8		SAM	CTD 60m wire out, 20min	
				EN	1820	70 10.480	124 49.443		30	SA		
25	WIS-02	BOX	304	BE	19:11	70 10.469	124 50.488	44		SPA	box-203 unsuccessful. corner of box core is bent.	
				Bo	19:12	70 10.468	124 50.509	44			3 Rivets came apart in one corner. Crew will try and repair.	
				EN	19:14	70 10.463	124 50.539	44				
25	WIS-02	BOX	305	BE	19:31	70 10.397	124 50.141	44		SPA	box-204 Sunny, clear, 0.5m swells	
				Bo	19:32	70 10.393	124 50.161	44				
				EN	19:33	70 10.388	124 50.194	43			Failed deployment, <u>Deployment at new site</u>	
25	WIS-02	BOX	306	BE	19:42	70 10.508	124 49.902	44.7		SPA	1/4 mile from last spot → try again in what looks like softer ground.	
				Bo	19:43	70 10.504	124 49.914	44				
				EN	19:45	70 10.499	124 49.938	44.9		SPA	box-205 unsuccessful	
25	WIS-02	WZA	307	W	summer "WIS-02-25 Aug 2014 - hard bottom no bbt"						No bbt at this station WZA-137	

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BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)

MPS = Multi-net

MWT = Midwater trawl

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Version: 22 May 2014

DAILY SCIENCE LOG

Page _____

Month				Year				Ship				Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N)	Longitude (W)	Bottom Depth	Max Depth	Logger's initials	Comments		
						DD MM.MM...	DDD MM.MM...						
25	WIS-02	WZA	307	BE	20:04	70 10.308	124 50.510	44		SPA	WZA-137		
				BO	20:05	70 10.385	124 50.296	44.5					
				EN	20:25	70 11.145	124 48.237	43			rock in net,		
25	CPY-01	ROS	308	BE	21:49	70 13.552	124 29.823	44		H.M.			
				BO	21:52	70 13.541	124 29.882		40		CULL MAX = 30 m		
				EN	21:59	70 13.565	124 30.077						
25	CPY-01	MPS	309	BE	22:20	70 13.617	124 30.530	44		SPM	vertical tow; changed block position		
				BO	22:22	70 13.620	124 30.549		35				
				EN	22:24	70 13.630	124 30.615						
25	CPY-01	BON	310	BE	22:45	70 13.630	124 31.100	44.1		SPM	50m wire, ~50L;		
				EN	23:06	70 13.636	124 28.858						
25	CPY-01	BOX	311	BE	23:19	70 13.595	124 29.660	42.7		SPA	*repaired box; BOX-206		
				BO	23:20	70 13.598	124 29.669	42.9					
				EN	23:22	70 13.599	124 29.701	43.4					
25	CPY-01	BBT	312	BE	23:37	70 13.545	124 31.765	43		SPA	BBT-117		
				BO	23:42	70 13.566	124 30.930	43					
				EN	23:52	70 13.656	124 29.993	42					
26	CPY-01	CTD	313	BE	12:56	70 13.642	124 29.858	42		H.M.	CTD ONLY		
				EN	13:02	70 13.636	124 29.624		37				

Event Type:

BBT = Benthic Beam Trawl

Time Code:

Event Type:

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CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

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Transmissometer to be cleaned before each cast, do not use Ammonia products

DAILY SCIENCE LOG

Month <u>AUGUST</u>				Year <u>2014</u>				Ship <u>FROSTI</u>			Page <u> </u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
26	CPY-01	W2A	314	BE	13:17	70 13.516	124 28.756	41		SPA	foggy, wind NW 15 knot winds ~1m swells. Fog lifted by end of trawl	
				BO	13:18	70 13.531	124 28.998	42				
				EN	13:38	70 13.357	124 31.904	40				
26	CPY-02	ROS	315	BE	14:25	70 15.667	124 30.457	89		H.M	CHL MAX = 30	
				BO	14:28	70 15.646	124 30.425		80			
				EN	14:40	70 15.547	124 30.373					
26	CPY-02	MPS	316	BE	14:50	70 15.516	124 30.495	74.9		SPAM	* fired all 5 nets to test meter spool	
				BO	14:53	70 15.495	124 30.511					
				EN	14:56	70 15.463	124 30.496					
26	CPY-02	BON	317	BE	15:09	70 15.639	124 30.435	72.0		SPAM	L = 50 wire out = 100m V = 1.5 km in H2O target Z = 60m	
				EN	15:30	70 16.168	124 31.201		(No?)			
26	CPY-02	BOX	318	BE	15:48	70 15.517	124 30.533			SPAM	box 208 screenshot "CPY02-26 Aug 2014 - box 207.jpg"	
				BO	15:50	70 15.509	124 30.562					
				EN	15:52	70 15.484	124 30.557					
26	CPY-02	BOX	319	BE	16:02	70 15.411	124 30.615	69.1		SPAM	box 208	
				BO	16:05	70 15.393	124 30.619					
				EN	16:07	70 15.380	124 30.625					
26	CPY-02	bbt	320	BE	16:48	70 14.935	124 33.572			SPAM	bbt-118	
				BO	16:53	70 15.086	124 32.945	70.2	74			

Event Type:

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
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Month <i>August</i>				Year <i>2014</i>				Ship <i>F/V Frusti</i>			Cruise ID <i>2014-56</i>		Page <i>_____</i>
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
26	CPY-02	bbr	320	EN	17:03	70 15.501	124 31.982	70.1		SAM			
26	CPY-02	W2a	321	BE	17:25	70 15.451	124 30.748	70.6		SAM	W2a-139		
				BO	17:29	70 15.315	124 31.340		73.6		*hit one small hump at t=17:47; rest flat towing		
				EN	17:49	70 14.880	124 34.151	70.2					
26	CPY-03	ROS	322	BE	19:54	70 26.788	124 31.254	222	212	H.M.	CHL MAX = 40/55 33.1 SAL = 11		
				BO	20:01	70 26.730	124 31.249		205		1 ST CAST (TOUCHED BOTTOM)		
				EN	20:10	70 26.668	124 31.240						
	2 ND CAST	ROS	323	BE	20:32	70 26.513	124 31.152	160		H.M.	2 ND CAST		
				BO	20:38	70 26.478	124 31.123		70				
				EN	20:47	70 26.432	124 31.061						
26	CPY-03	MPS	324	BE	21:04	70 26.690	124 31.306	2050		SAM	btmz = 205.0 / but will only sample to 190m due to dropoff (rosette skimmed btm)		
				BO	21:10	70 26.662	124 31.171	194.0	190		hit bottom? -> nope!		
				EN	21:16	70 26.633	124 31.133	177.					
26	CPY-03	BON	325	BE	21:26	70 26.637	124 30.965	182		SAM	WIRE 50° t=20 min tow		
				EN	21:47	70 26.434	124 33.154	178			WIRE out = 2100m		
26	CPY-03	BOX	326	BE	22:04	70 26.653	124 31.372	175		SPA	box-209 success		
				BO	22:07	70 26.637	124 31.337	173					
				EN	22:10	70 26.613	124 31.277	169		S			
26	CPY-03	BOX	327	BE	22:19	70 26.542	124 31.129	171		SPA	box-210		

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Month <u>Aug</u>				Year <u>2014</u>				Ship <u>Frosti</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
26	CPY-03	Box	327	BO	20:22	70 26.522	124 31.087	171				
				EN	20:26	70 26.496	124 31.010	169				
26	cpy-03	Box	328	BE	20:50	70 26.238	124 33.484	181		SPA	bbt-119	
				BO	23:01	70 26.610	124 32.312	173				
				EN	23:11	70 26.656	124 31.312	176				
26	cpy-03	WZA	329	BE	23:40	70 26.737	124 32.071	200		SPA	wza-140 Hauled back early b/c	
				BO	—	—	—	175			depth changed dramatically (200-175) no net was	
				EN	23:44	70 26.488	124 32.748	196			setting; going to try in shallower spot	
26	cpy-03	WZA	330	BE	00:12	70 26.437	124 33.062	185		SPA	wza-141	
				BO	00:12	70 26.437	124 33.062	198			Tried for a 20 min tow in shallower area;	
				EN	00:25	70 26.659	124 31.159	192			got to 13 min & bottom started looking	
27	CPY-HCI	CTD	331	BE	1434	70 19.640	124 30.312	115			questionable, decided to haul back.	
				BO	1438	70 19.634	124 30.305		100		CTD ONLY	
				EN	1441	70 19.629	124 30.287					
27	CPY-HCI	Hmps	332	BE	14:54	70 19.654	124 30.133	113		SPM		
				BO	15:02	70 19.944	124 29.959	107	105		Unlock at 105 105m	
				EN	15:24	70 20.866	124 29.013	139				
27	CPY-HCI	MWT	333	BE	15:48	70 21.555	124 31.142	102		SPA	mwt-065	
				BO	15:52	70 21.362	124 30.000	98				

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Aug 26, Afternoon:

Wind NW 15 knots, 10/10 overcast, 1m waves

This page is for any notes or observations

Aug 27 2014

Calm, ~~0~~ waves, foggy, N light winds < 5 knots

DAILY SCIENCE LOG

Page _____

Month <u>August</u>		Year <u>2014</u>		Ship <u>R/V Frash</u>				Cruise ID <u>2014-56</u>			
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
27	CPY-HC1	MWT	333	EN	16:17	70 20.630	124 30.244	80		SPA	25 min tow
				SW	16:24	70 19.904	124 30.234				
27	CPY-HC2	CTD	334	BG	19 11	70 10.384	124 50.247	44		H.M.	CTD ONLY
				BO	19 14	70 10.377	124 50.295		40		
				EN	19 15	70 10.375	124 50.319				
27	CPY-HC2	Hmps	335	BE	19:27	70 10.311	124 50.468	42.0		Sam	Unlock @ 35.0m
				BO	19:31	70 10.589	124 49.710		35		-longer tow since 1st tow didn't have many organisms @ HC-1
				EN	19:52	70 11.08	124 49.520	43.8			
27	CPY-HC2	MWT	336	BE	20:11	70 11.571	124 47.362	41		SPA	mwt_066 Took 2 screenshots: 1 @ beginning of tow
				BO	20:13	70 11.471	124 47.578	43			"CPY-HC2-27Aug2014-mwt_066" 3 one at end
				EN	20:33	70 10.585	124 49.685	44			to show targets that appeared 1/2 way through
				OW	20:38	70 10.479	124 49.977	43			"CPY-HC2-27Aug2014-mwt_066 end of tow"
27	CPY-HC3	CTD	337	BG	21:53	70 06.214	125 03.866	46		H.M.	CTD ONLY
				BG	21:55	70 06.218	125 03.835		40		Sunny, clear, calm, 0.25m waves
				EN	21:57	70 06.222	125 03.800				Wind N 10 knots
27	CPY-HC3	Hmps	338	BE	22:13	70 05.772	125 05.043	46		Sam	Unlock @ 32.0m; 080-20, 020-10, 0-0
				BO	22:18	70 06.058	125 04.400	52			
				EN	22:33	70 06.249	125 02.381				
27	CPY-HC3	MWT	339	BE	22:53	70 06.445	125 59.660	42		SPA	mwt_067

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Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
27	CP4-HC3	MWT	339	BO	22:55	70 06.393	125 00.198	47		SPA		
				EN	23:15	70 06.143	125 03.034	51				
				DW	23:19	70 06.127	125 03.351	54				
28	MNT-01	ROS	340	BE	1648	71 13.766	118 21.961	214		H.M.	1 ST CAST 33.1 SAL = 12 m	
				B6	1653	71 13.883	118 21.814		205		CHL MAX = 47	
				EN	1705	71 14.098	118 21.557					
	MNT_01	ROS	341	BE	1727	71 13.894	118 22.145	215		H.M.	2 ND CAST	
				B6	1729	71 13.936	118 22.085		70			
				EN	1739	71 14.101	118 21.866					
28	MNT-01	MPS	342	BE	17:49	71 14.286	118 21.517					
				BO	17:55	71 14.397	118 21.395					
				EN	18:00	71 14.487	118 21.287					
28	MNT-01	Bon	343	BE	18:11	71 14.3093	118 21.8903					
				EN	18:30	71 14.028	118 22.222					
28	MNT-01	BOX	344	BE	18:46	71 13.463	118 22.313	211		SPA	box-211 Unsuccessful	
				BO	18:50	71 13.521	118 22.227	212				
				EN	18:54	71 13.607	118 22.158	213				
28	MNT-01	BOX	345	BE	18:58	71 13.673	118 22.061	213		SPA	box-212; got some mud, not a great sample. Bottom looks good on	
				BO	19:01	71 13.737	118 21.972	214			→	

Event Type:

BOT = Bottle cast, no CTD
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 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
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 UP = Start up Time
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Notes:

Transmissometer to be cleaned before each cast, do not use Ammonia products

DAILY SCIENCE LOG

Page _____

Month <u>AUGUST</u>				Year <u>2014</u>				Ship <u>FROST</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
28	MNT-01	BOX	345	EN	19:06	71 13.814	118 21.903	215		SPA	box-212	cont: echosounder but box core is salt grabbing
28	MNT-01	BOX	346	BE	19:21	71 13.708	118 22.395	214		SAM	box-213	
				BO	19:25	71 13.761	118 22.309	214				let out wire @ a faster speed to hit btm w/ force
				EN	19:29	71 13.842	118 22.241	215				thick sediment @ btm of box; water running out; removed "stubby" holder from frame
28	MNT-01	BBT	347	BE	19:45	71 14.730	118 20.788	216		SPA	bbt-120	gravel bottom
				BO	19:55	71 14.281	118 21.323	216				
				EN	20:05	71 13.951	118 21.717	215				
28	MNT-01	W2A	348	BE	20:40	71 14.103	118 21.651	215		SPA	W2A-142	
				BO	20:42	71 14.040	118 21.745	214				
				EN	21:02	71 13.157	118 23.284	209				
29	MNT-02	ROS	349	BE	00:21	71 15.444	117 05.071	283		H.M.	CAST #1	33.1 SAL = 112 _m
				BO	00:28	71 15.547	117 04.787		275			
				EN	00:40	71 15.713	117 04.410					CHL MAX = 47 _m
29	MNT-02	ROS	350	BE	01:00	71 15.437	117 05.761	280		H.M.	2 nd CAST	
				BO	01:02	71 15.479	117 05.640		70			
				EN	01:12	71 15.635	117 05.168					
29	MNT-02	BON	351	BE	01:27	71 16.147	117 03.540	282.6		SAM	180 _g wire; target depth = 200m	V=1.75m
				EN	01:46	71 15.713	117 04.384	280.3				

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DAILY SCIENCE LOG

Page _____

Month <u>AUGUST</u>				Year <u>2014</u>				Ship <u>FROST</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
29	MNT-02	CTD	352	BE	1257	71 15.566	117 05.047	281		H.M.	CTD ONLY	
				BO	1305	71 15.632	117 04.648		270			
				EN	1311	71 15.662	117 04.456					
29	MNT-02	MPS	353	BE	1323	71 15.473	117 05.202	282		Sam		
				BO	1330	71 15.556	117 05.004	282	270			
				EN	1343	71 15.607	117 04.645	281				
29	MNT-02	Box	354	BE	13:55	71 15.381	117 05.471	283		SPA	Strong tide, no wind (E < 5 knots) 6/10 clear	
				BO	14:00	71 15.402	117 05.331	283			tide is making boat drift.	
				EN	14:06	71 15.421	117 05.152	283			Box-214, not much sediment, can do SI w/ sample	
29	MNT-02	Box	355	BE	14:13	71 15.454	117 04.879	283		SPA	Box-215	
				BO	14:17	71 15.477	117 04.761	283				
				EN	14:23	71 15.494	117 04.598	283				
29	MNT-02	BBT	356	BE	14:39	71 16.487	117 02.877	284		SPA	bbt-121	
				BO	14:55	71 15.863	117 04.072	281			-really flat, excellent tow	
				EN	15:05	71 15.621	117 04.749	283			-full bucket of specimens	
29	MNT-02	W2A	357	BE	15:42	71 15.683	117 04.479	282		SPA	w2a-143 doors touched down @ same	
				BO	15:42	71 15.683	117 04.479	282			time as trawl finished shooting	
				EN	16:02	71 15.282	117 07.273	280				

Event Type:

BOT = Bottle cast, no CTD
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Transmissometer to be cleaned before each cast, do not use Ammonia products

Notes: _____

DAILY SCIENCE LOG

Page _____

Month <u>AUGUST</u>				Year <u>2014</u>			Ship <u>FROST</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
29	MNT-03	ROS	358	BE	1658	71 19.544	117 08.760	154	146	H.A.	
				BO	1701	71 19.586	117 08.873		140		33.1 = 120m
				EN	?	oops					
29	MNT-03	ROS	359	BE	1728	71 19.517	117 09.014	155		H.A.	
				BO	1729	71 19.544	117 09.080		70		CHL MAX = 43m
				EN	1738	71 19.603	117 09.269				
29	MNT-03	MPS	360	BE	1749	71 19.482	117 08.530	169		SAM	
				BO	1754	71 19.513	117 08.582	164			
				EN	1758	71 19.532	117 08.649	159			
29	MNT-03	BON	361	BE	1821	71 19.243	117 11.350	141		SAM	L=45° CTISV target Z=140m wire out = 200m
				EN	1840	71 19.446	117 09.525	154			
29	MNT-03	BOX	362	BE	19:15	71 19.472	117 08.604	166		SPA	box-216
				BO	19:18	71 19.485	117 08.639	165			
				EN	19:22	71 19.500	117 08.699	162			
29	MNT-03	BOX	363	BE	19:29	71 19.512	117 08.787	160		SPA	box-217
				BO	19:31	71 19.513	117 08.798	160			
				EN	19:35	71 19.514	117 08.801	160			
29	MNT-03	BBT	364	BE	19:50	71 19.832	117 07.307	141		SPA	bbt-122
				BO	20:06	71 19.442	117 09.628	153			

Event Type:

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Transmissometer to be cleaned before each cast, do not use Ammonia products

Notes: _____

DAILY SCIENCE LOG

Page _____

Month <u>Aug</u>				Year <u>2014</u>				Ship <u>Frost</u> 				Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
29	MNT-03	bbt	364	EN	20:16	71 19.308	117 10.591	155					
29	MNT-03	W2A	365	BE	20:40	71 19.426	117 09.720	151		SPA	w2a-144		
				BO	20:41	71 19.440	117 09.638	152					
				EN	21:01	71 19.820	117 06.782	154					
29	MNT-04	ROS	366	BE	22:03	71 23.664	117 11.736	80		H.M.	CHL MAX = 48m		
				BO	22:05	71 23.633	117 11.846		75				
				EN	22:15	71 23.530	117 12.497						
29	MNT-04	MPS	367	BE	22:41	71 23.868	117 10.730	74.0		SAM			
				BO	22:43	71 10.835	117 23.847	74.6					
				EN	22:46	71 23.830	117 10.943	75.4					
29	MNT-04	BON	368	BE	23:00	71 23.919	117 09.935	77.45		SAM	wire out = 1' = target 2' CTD? ✓		
				EN	23:20	71 23.679	117 12.427	72.8	~60m?				
29	MNT-04	BOX	369	BE	23:35	71 23.821	117 11.442	75		SPA	box-218 Success		
				BO	23:37	71 23.821	117 11.555	73					
				EN	23:39	71 23.818	117 11.670	73					
29	MNT-04	BOX	370	BE	23:46	71 23.789	117 12.084	70		SPA	box-219 Success		
				BO	23:47	71 23.784	117 12.158	68					
				EN	23:48	71 23.780	117 12.254	65					
29	MNT-04	BBT	371	BE	00:06	71 23.207	117 13.950	96		SPA	bbt-123 Started deep so net could settle @ proper depth.		

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Notes: _____

Transmissometer to be cleaned before each cast, do not use Ammonia products

Version: 22 May 2014

DAILY SCIENCE LOG

Aug 6 - Aug 12
500m → 200m

Page _____

Month August		Year 2014				Ship Frosti				Cruise ID 2014-56	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
29	MNT-04	BBT	371	BO	00:16	71 23.503	117 12.847	75		SPA	bbt-123
				EN	00:26	71 23.713	117 12.048	75			no fish → fish in W2A (tomorrow)
30	MNT-04	CTD	372	BE	1304	71 23.784	117 11.799	8475		H.M.	CTD ONLY
				BO	1306	71 23.777	117 11.996		70		Sunny, 1/10 clear, 0.25m waves
				EN	1308	71 23.773	117 12.159				wind E 5-10 knots.
30	MNT-04	W2A	373	BE	1324	71 23.435	117 13.152	75		SPA	W2A-145
				BO	1325	71 23.482	117 12.966	75			
				EN	1345	71 23.836	117 10.184	81			
30	MNT-05	ROS	374	BE	1611	71 26.236	116 17.707	14239		H.M.	33.1 SAL = 120
				BO	1616	71 26.328	116 17.787		130		1 ST CAST
				EN	1623	71 26.415	116 17.969				CHL MAX = 48u
30	MNT-05	ROS	375	BE	1641	71 26.081	116 18.044	154		H.M.	
				BO	1644	71 26.140	116 18.119		70		2 ND CAST
				EN	1653	71 26.262	116 18.354				
30	MNT-05	MPS	376	BE	17:05	71 26.080	116 17.668	154		SPM	- go to 10m off bottom ✓
				BO	17:11	71 26.163	116 17.725	147			
				EN	17:14	71 26.220	116 17.881	143			
30	MNT-05	BON	377	BE	17:28	71 26.209	116 16.742	141.2			↳ steep, 35-40°C; 180m wire out 2.1 kn SPT; 1.65 m
				EN	17:48	71 26.132	116 14.105	150.7			

Event Type:

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Notes: _____

MNT-05 → drifting back fast all day; there's a tide or current
at the mouth of MINTO INLET that is over-riding
20 kn winds

DAILY SCIENCE LOG

Page _____

Month <i>August</i>				Year <i>2014</i>				Ship <i>Frosti</i>			Cruise ID <i>2014-56</i>		
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...		Longitude (W) DDD MM.MM...		Bottom Depth	Max Depth	Logger's initials	Comments
30	MNT-05	Box	378	BE	18:10	71	26.147	116	17.725	147		SPA	box-220 success, sealed nicely,
				BO	18:12	71	26.175	116	17.727	145			H2O on top was still clear.
				EN	18:16	71	26.223	116	17.768	143			
30	MNT-05	Box	379	BE	18:25	71	26.068	116	17.963	159		SPA	box-221 unsuccessful
				BO	18:27	71	26.089	116	18.020	155			
				EN	18:30	71	26.125	116	18.106	151			
30	MNT-05	Box	380	BE	18:34	71	26.174	116	18.191	148		SPA	box-222 didn't close all the way; rock
				BO	18:36	71	26.207	116	18.222	147			stuck in spade, bent box.
				EN	18:40	71	26.255	116	18.298	147			→ box core w/ rock; Shovelme w/ 1st; sharp, jagged rocks; skip bot, searching for spot to tow wra
30	MNT-HCI	CTD	381	BE	19:39	71	26.178	116	17.882	147		H.M.	CTD ONLY
				BO	19:42	71	26.230	116	17.905		140		
				EN	19:46	71	26.278	116	17.957				
30	MNT-HCI	MPS	382	BE	19:56	71	26.376	116	18.050	147		S.M.	HORIZONTAL MULTI NET
				BO	20:08	71	26.561	116	18.830	152	130		
				EN	20:33	71	27.008	116	18.802				
30	MNT-HCI	MWT	383	BE	20:57	71	27.091	116	13.538	125		SPA	20m tow through site targets; see
				BO	20:58	71	27.046	116	13.743				green layer in screeners
				EN	21:18	71	26.422	116	17.049				see "30aug2014-MNT-HCI-129m-mwt-ppg"
				OW	21:24	71	26.370	116	17.449	145			or "30aug2014-MNT-HCI-20m-mwt-068"
													mwt-068

Event Type:

BBT = Benthic Beam Trawl

Time Code:

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BBT = Benthic Beam Trawl
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BOX = Box Core

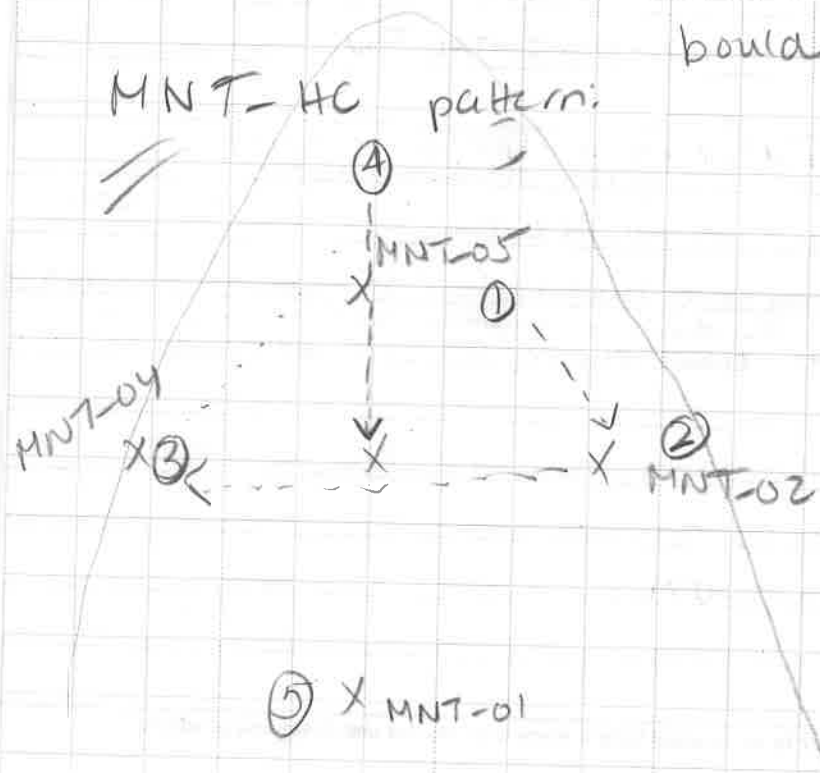
Time Code:

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Notes: _____

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- box core failed twice due to lrs, sharp rocks
- binoculars: Shoreline full of lrs, jagged rocks sloping into water
- Captain thought it was too rocky to deploy bottom nets
- ~~boxed~~ ~~boxed~~ trolled around over lunch to look for a better spot; noted boulders on seafloor; decided to skip bpt & wza @ MNT-05
- Straight into MNT-HC; MNT-HC1 = MNT-05 (approximately)
- See screenshots "30aug2014-MNT-05-skip-wza-rocks.jpeg" to see boulders & hard bottom on echogram



- ① Start MNT-HC @ MNT-05
 - ② run to MNT-02 w/ hydroacoustics
 - ③ bisect MINTO INLET from MNT-02 → MNT-04
 - ④ head ^{farther} down MINTO INLET past MNT-05; begin hydroacoustic work to transect MINTO INLET from ④ to ⑤ (ie, MNT-01)
- Steam overnight to Walter Bay.

} 30 aug 2014

Page _____

Transmissometer to be cleaned before each cast, do not use Ammonia products

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Notes:

DAILY SCIENCE LOG

Page _____

Month August				Year 2014				Ship Frosti			Cruise ID 2014-56	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
31	MNT_HC3	CTD	389	BE	2136	71 16.884	117 43.875	196		H.M.	CTD ONLY	
				BO	2140	71 16.874	117 43.877		185			
				EN	2145	71 16.878	117 43.879					
31	MNT_HC3	MPS	390	BE	2154	71 16.755	117 44.895	198		SAM	HORIZONTAL MULTI NET TOW	
				BO	2207	71 16.874	117 43.212		185			
				EN	2030	71 17.111	117 40.432					
31	MNT_HC3	MWT	391	BE	22:47	71 16.998	117 40.118	190	SPA		mwt_072	
				BO	22:54	71 16.965	117 41.410	194				
				EN	23:14	71 16.810	117 44.472	198				
				OW	23:22	71 16.736	117 45.008	199				
31	MNT_HC3	MWT	392	BE	23:36	71 16.596	117 45.209	196	SPA		mwt_073	
				BO	23:41	71 16.723	117 44.391	198				
				EN	00:01	71 17.105	117 41.484	186				
				OW	00:06	71 17.150	117 41.175	199				
01	WLK_01	ROS	393	BE	1308	71 28.789	118 41.713	100		H.M.		
				BO	1311	71 28.801	118 41.677		95			
				EN	1322	71 28.832	118 41.549					
01	WLK_01	MPS	394	BE	1331	71 28.858	118 41.445	105		SAM		
				BO	1334	71 28.865	118 41.423	99				

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Transmissometer to be cleaned before each cast, do not use Ammonia products

Notes: _____

Boothia

Version: 22 May 2014

DAILY SCIENCE LOG

Page _____

Month <u>September</u>				Year <u>2014</u>				Ship <u>F/V Frost</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
01	WLK-01	MPS	394	1338	EN	71 28.875	118 41.392	99		SAM	* hit bottom, redeploy	
01	WLK-01	MPS	395	1345	BE	71 28.903	118 41.314	99		SAM	10/10 overcast	
				1348	BO	71 28.913	118 41.284	99			wind W < 5 knots, Ø waves. calm	
				1350	EN	71 28.921	118 41.251	98				
01	WLK-01	BON	396	14:00	BE	71 28.942	118 41.296	99.2		SAM	wire out = 140 V = 2.5504 target 2.590m L = 4.5 ft m = 98m	
				14:19	EN	71 28.375	118 39.923	98.4			✓ good one.	
01	WLK-01	Box	397	14:34	BE	71° 28.765	118° 41.482	100		SPA	box-223 no sample	
				14:36	BO	71° 28.782	118° 41.487	99				
				14:38	EN	71° 28.794	118° 41.495	100				
01	WLK-01	Box	398	14:41	BE	71 28.804	118 41.492	100		SPA	box-224 success	
				14:43	BO	71 28.808	118 41.489	100			gravel bottom.	
				14:45	EN	71 28.814	118 41.480	99				
01	WLK-01	Box	399	14:53	BE	71 28.829	118 41.384	100		SPA	box-225 success	
				14:55	BO	71 28.829	118 41.357	99			Grabbed a rock - box core bent; not	
				14:57	EN	71 28.831	118 41.319	99			bad, easy fix.	
01	WLK-01	bdt	400	15:20	BE	71 27.586	118 38.486	97		SPA	bdt-124	
				15:31	BO	71 28.039	118 39.334	96				
				15:41	EN	71 28.321	118 39.874	97				
01	WLK-01	W2A	401	16:10	BE	71 27.857	118 38.004	98		SPA	W2A-146	

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MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

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UP = Start up Time
EN = End Time

Notes: _____

Transmissometer to be cleaned before each cast, do not use Ammonia products

01 sept, 2014

— SPOT to try for HC work in MW7:

71 31.017 } thick btm aggregation
118 29.227 } for acoustics work

snapshot: "WLK-01sept2014 - between WLK0102-61m.jpg"

— 71 32.541' 118 17.543, t = 17:48

"WLK-01sept2014-56m.jpg"

↳ top layer drops into bottom layer of targets over a peak; same
signal detected or eked as on ship's sonar (Furuno)
(ships sonar less sensitive)

— lots of green targets @ SFC; "WLK-02-01sept2014-62m.jpg"

DAILY SCIENCE LOG

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Month <u>Sept</u>				Year <u>2014</u>				Ship <u>Frosti</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
01	WLK-02	WZA	408	BE	21:37	71 32.492	118 17.255	55	SPA		wza-147	
				BO	21:38	71 32.519	118 17.062	52				
				EN	21:58	71 32.720	118 14.077	50				
01	WLK-03	ROS	409	BE	2307	71 35.833	118 00.368	45		H.M.		
				BO	2309	71 35.852	118 00.401		40			
				EN	2315	71 35.900	118 00.390					
01	WLK-03	MPS	410	BE	2323	71 35.953	118 00.258	40.1		SAM		
				BO	2325	71 35.967	118 00.224	42.7				
				EN	2327	71 35.980	118 00.188					
01	WLK-03	BON	411	BE	2352	71 37.380	117 59.872			SAM	Wire out = 80 btm 2 = 60 Wire in = 45 target 2 = 55	
				EN	00:11	71 36.895	117 59.601					
01	WLK-03	BOX	412	BE	00:25	71 35.698	118 00.360	44		SPA	box-228 11 unsuccessful	
				BO	00:26	71 35.498	118 00.404	44				
				EN	00:27	71 35.706	118 00.431	44				
01	WLK-03	BOX	413	BE	00:31	71 35.735	118 00.457	45		SPA	box-229	
				BO	00:32	71 35.743	118 00.457	45				
				EN	00:33	71 35.756	118 00.455	46				

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
WZA = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Notes: _____

WKK-03 01 Sept

- Started Ras @ 40m @ WKK-03; had to look for a place to tow bongas;
found that most of area is deeper (~50-70m)
towed bongos @ 60m line; prob. will fish deeper (60) as well.

DAILY SCIENCE LOG

2870m } wire on
1800lbs } conducting
winch

Page _____

Month <u>September</u>				Year <u>2014</u>				Ship <u>F/V Fresh</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
02	WLK-03	CTD	414	EN	1334	71 35.711	118 00.357	45		H.M.	CTD ONLY	
				BO	1335	71 35.724	118 00.365		40			
				EN	1336	71 35.734	118 00.370					
02	WLK-03	BBT	415	BE	13:48	71 36.263	117 59.239	60		SPA	bbt-126	
				BO	13:56	71 36.675	117 59.511	59			trawl skipping along bottom - came up to 45m	
				EN	14:06	71 37.007	117 59.808	60			(from 60m) at one point. Full of Foraminifera	
02	WLK-03	W2A	416	BE	14:30	71 36.989	117 59.761	59		SPA	W2A-148 13 min tow - ran out of bottom	
				BO	14:31	71 36.872	117 59.748	62			trawleye not charged. Switched to ship's	
				EN	14:43	71 36.300	117 59.077	65			trawleye system; redeploy net for 10 min tow	
02	WLK-03	W2A	417	BE	15:13	71 36.522	117 59.835	62		SPA	W2A-149	
				BO	15:15	71 36.640	117 59.469	60			10 min tow; used ship's trawleye.	
				EN	15:25	71 37.145	117 59.921	61				
02	WLK-HC1	CTD	418	BE	1634	71 35.544	118 00.487	45		H.M.	CTD ONLY	
				BO	1635	71 35.544	118 00.526		40			
				EN	1637	71 35.546	118 00.572					
02	WLK-HC1	H.M.P.S.	419	BE	1652	71 35.396	117 59.996	42.0		SPM	btm A quickly from ~40-65m; awaits for ~40m CTD cast	
				BO	1656	71 36.019	117 59.951	60.4				
				EN	1657	71 36.864	117 59.546					
02	WLK-HC1	MWT	420	BE	17:36	71 37.522	117 59.466	70		SPA	mwt-074	

Event Type:

BRT = Benthic Beam Trawl

Time Code:

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes: _____

Transmissometer to be cleaned before each cast, do not use Ammonia products

Sept 02 2014 15:30

3/10 clear, sunny, wind ^{NSE} < 5 knots (v. light), no waves

Ⓐ Ship's GPS compares (time we've been recording in bridge log book) & Ektro laptop offset by 1 min & 1 sec. (Ektro 1:01 faster than ship's log)

DAILY SCIENCE LOG

Page _____

Month <u>Sept</u>				Year <u>2014</u>				Ship <u>Frosti</u>				Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...		Longitude (W) DDD MM.MM...		Bottom Depth	Max Depth	Logger's initials	Comments
02	WLK-HC1	mwt	420	BD	17:37	71	37.500	117	59.468	70		SPA	mwt-074 20m target
				EN	17:37	71	36.413	117	59.474	62			Screenshot: "02 Sept 2014-WLK-HC1-mwt-074"
				OW	18:02	71	36.278	117	59.423	61			
02	WLK-HC2	CTD	421	BE	20:49	71	28.764	118	41.658	99		H.M.	CTD ONLY
				BO	20:52	71	28.810	118	41.655		90		
				EN	20:55	71	28.851	118	41.664				
02	WLK-HC2	WMPs	422	BE	21:08	71	28.878	118	42.488	100.29		SAM	
				BO	21:15	71	29.013	118	41.835	96.05			
				EN	21:38	71	29.351	118	39.170	76.47			
02	WLK-HC2	MWT	423	BE	21:58	71	29.539	118	37.906			SPA	mwt-075 50m target
				BO	22:01	71	29.458	118	38.347	92			Screenshot: "02 Sept 2014-WLK-HC2-50m-mwt-075"
				EN	22:21	71	28.912	118	40.913	99			
				OW	22:27	71	28.903	118	41.403	99			
04	ALX-01	ROS	424	BE	15:32	71	37.130	120	20.215	76		H.M.	CHL MAX = 52
				BO	15:34	71	37.135	120	20.227		70		
				EN	15:46	71	37.156	120	20.497	76.11			
04	ALX-01	MPS	425	BE	15:58	71	37.198	120	19.973	76.14		SAM	
				BO	16:00	71	37.198	120	20.020	76.55			
				EN	16:03	71	37.201	120	20.057	76.56			

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes: _____

Transmissometer to be cleaned before each cast, do not use Ammonia products

DAILY SCIENCE LOG

Month				September				Year				2014				Ship				F/V Frosti				Cruise ID		2014-56		Page	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments																		
04	ALX-01	BON	426	BE	16:12	71 37.153	120 20.157	76.7		SAM	Wire out = 90m Target 2 = 63m Wire L =																		
				EN					63		depressor rope wrapped around cod end. cancel + redeploy Bungos FAIL																		
04	ALX-01	BON	427	BE	16:25	71 37.540	120 20.046	75.8m		SAM	Wire out = 90m Target 2 = 63m Wire L = 40-45'																		
				EN	16:47	71 38.290	120 20.227		63		✓ good one; 1 me core rods. No 404b5 = 3																		
04	ALX-01	BOX	428	BE	17:03	71 37.048	120 20.060	76.9		SPA	box-230. OK sample - didn't seal properly but kept.																		
				BO	17:05	71 37.033	120 20.099	75.4																					
				EN	17:07	71 37.015	120 20.186	73.8																					
04	ALX-01	BOX	429	BE	17:16	71 36.981	120 20.292	76.1		SPA	box-231 Successful																		
				BO	17:18	71 36.982	120 20.350	76.4																					
				EN	17:20	71 36.974	120 20.423	76.1																					
04	ALX-01	BBT	430	BE	17:29	71 36.876	120 20.520	75.1		SPA	bbt-127 six fish. 511111 fish!																		
				BO	17:35	71 37.097	120 20.260	75.4																					
				EN	17:45	71 37.419	120 20.038	75.9																					
04	ALX-01	W2A	431	BE	18:12	71 38.168	120 19.983	76.1		SPA	w2a-150																		
				BO	18:15	71 38.056	120 19.012	76.1																					
				EN	18:35	71 36.997	120 20.145	76.1																					
04	ALX-02	ROS	432	BE	20:27	71 39.635	119 45.976	14		H.M.																			
				BO	20:31	71 39.596	119 46.160		135																				
				EN	20:38	71 39.546	119 46.394																						

vent Type:

BOT = Bottom Trawl

BBT = Benthic Beam Trawl

Time Code:

1

Transducer:

1

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Notes: _____

DAILY SCIENCE LOG

Month <u>SEPT</u>				Year <u>2014</u>		Ship <u>FROST</u>			Page <u> </u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
04	ALX-02	ROS	433	BE	20:59	71 39.384	119 47.496	139		H.N.	2 ND CAST		
				BO	21:01	71 39.370	119 47.576		70		CHL MAX = 50m		
				EN	21:12	71 39.276	119 48.082						
04	ALX-02	MPS	434	BE	21:26	71 39.710	119 46.137	141.03		SPM	No flow data at any depth interval No time to redeploy.		
				BO	21:30	71 39.686	119 46.213		130				
				EN	21:33	71 39.641	119 46.356						
04	ALX-02	BON	435	BE	21:41	71 39.602	119 46.612	141		SPM	Wire out = 185m target 3 = 130m no 4040's =) Wire A = btm 3 = 141.17		
				EN	22:02	71 40.363	119 46.134	139.7	130?				
04	ALX-02	BOX	436	BE	22:18	71 39.614	119 46.425	141		SPA	box-232 dud.		
				BO	22:21	71 39.606	119 46.521	140			unsuccessful, hard like cement		
				EN	22:24	71 39.589	119 46.633	141					
04	ALX-02	BOX	437	BE	22:27	71 39.571	119 46.789	140		SPA	box-233 ; only water, no grab		
				BO	22:29	71 39.564	119 46.880	140					
				EN	22:33	71 39.546	119 46.996	141					
04	ALX-02	BOX	438	BE	22:44	71 39.911	119 46.029	139		SPA	box 234 → moved 1/2 mile from last 2 box cores; bottom may be softer here. Got an OK sample		
				BO	22:46	71 39.894	119 46.076	139					
				EN	22:49	71 39.885	119 46.142	139					
04	ALX-02	BOX	439	BE	23:00	71 39.858	119 46.620	140		SPA	box-235 not very good sample, kept what was there & moving on to 440		
				BO	23:02	71 39.851	119 46.700	140					

Event Type:

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CTD = CTD without Rosette
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W2A = Western Trawl

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MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

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EN = End Time

Notes: _____

Transmissometer to be cleaned before each cast, do not use Ammonia products

ALX-02 → 04 Sept 2014; heavy fuzets at 50-60m
- lots of snow on Banks Island; look several feet thick; a couple hundred
meters above sea level

Sept 4 am → 10/10 cloud (completely overcast), wind NE 15-20 knots, waves 1m; ^{light} rain

(22:13 UTC)
pm → 9/10 cloud; wind 10-15 knots NE, waves 1m, intermittent light showers

DAILY SCIENCE LOG

Month <u>Sept</u>				Year <u>2014</u>				Ship <u>Frosti</u>				Page _____		Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments				
04	ALX-02	BOX	439	EN	23:05	71 39.843	119 46.800	140		SPA	box-235. 11				
04	ALX-02	BBT	440	BE	23:18	71 39.416	119 46.284	141		SPA	bot-128				
				BO	23:25	71 39.743	119 46.321	140							
				EN	23:35	71 40.061	119 46.290	140							
04	ALX-02	WZA	441	BE	00:00	71 40.343	119 46.110	140		SPA	wza-151				
				BO	00:02	71 40.250	119 46.167	140							
				EN	00:22	71 39.230	119 46.353	141							
05	ALX-03	ROS	442	BE	12:58	71 40.987	119 17.066	46		H.M.					
				BO	13:01	71 40.990	119 17.111		40						
				EN	13:07	71 40.992	119 17.180								
05	ALX-03	MPS	443	BE	13:15	71 40.985	119 17.199	47.5		SPM	greased pins before deployment				
				BO	13:16	71 40.983	119 17.200	47.6			bearded seal spotted; in MMO book				
				EN	13:18	71 40.978	119 17.201	47.6							
05	ALX-03	BON	444	BE	13:28	71 40.962	119 17.395	47.5	35?	SPM	win out = 50m target 3 = 35m A = 45 V = 2.2504, 1.651N				
				EN	13:48	71 41.552	119 16.509	47.02							
05	ALX-03	BOX	445	BE	14:05	71 41.056	119 17.062	47.0		SPA	box-236 didn't seal				
				BO	14:06	71 41.058	119 17.108	47.3							
				EN	14:07	71 41.062	119 17.164	47.4							
05	ALX-03	BOX	446	BE	14:11	71 41.048	119 17.286	47.7		SPA	box-237				

Event Type:
BOT = Bottle cast, no CTD

BBT = Benthic Beam Trawl
BOT =

Time Code:
1

Transmission:
1

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
WZA = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

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UP = Start up Time
EN = End Time

Notes: _____

Transmissometer to be cleaned before each cast, do not use Ammonia products

⑩ 05 Sept 2014 , 13:57 71 41.443 119 16.442

- Ramsay Island, 7 mi north of us; SPA got photo on fancy Nikon camera

looks to be 700 ft tall,



DAILY SCIENCE LOG

Page _____

Month <i>Sept</i>				Year <i>2014</i>				Ship <i>F/V Frosh</i>			Cruise ID <i>2014</i>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
05	ALX-03	BOX	446	BO	14:12	71 41.044	119 17.302	48.0		SPA	box-237	
				EN	14:13	71 41.037	119 17.324	48.0			No sample, very hard bottom, moving 1/2 mile away & redeploying	
05	ALX-03	BOX	447	BE	14:25	71 41.409	119 16.390	45.1		SPA	box-238	
				BO	14:26	71 41.405	119 16.393	44.7			Mud on outside of box, leaking water, not sealed; not good sample	
				EN	14:27	71 41.401	119 16.399	44.9			4 hr sieved lots of worms for SI; no other surface samples taken	
05	ALX-03	WZA	448	BE	14:46	71 41.545	119 16.400	46.4		SPA	WZA-152	
				BO	14:52	71 41.222	119 16.646	45.3			no bbt → large rocks @ bottom. 10 min	
				EN	15:02	71 40.817	119 16.343	45.1			offer trawl in case bottom is too rocky	
05	ALX-03	WZA	449	BE	15:20	71 40.500	119 17.639	46.1		SPA	Added 36 cable @ 14:51 b/c trawl wasn't sitting on bottom correctly	
				BO	15:22	71 40.593	119 17.520	46.7			WZA-153 1st tow looked good; re-deploy	
				EN	15:32	71 41.096	119 16.900	46.8			2nd 10 min tow @ ALX-03	
05	PWS-01	ROS	450	BE	19:05	72 06.540	119 25.666	106		H.M.	Skip bbt due to rough bottom; lots of rocks in box core (sharp-looking)	
				BO	19:10	72 06.530	119 25.655		100		1 CAST	
				EN	19:19	72 06.509	119 25.645				-chla max low relatively low (~45m)	
05	PWS-01	MPS	451	BE	19:28	72 06.487	119 25.726	106		SHM		
				BO	19:32	72 06.490	119 25.757	106.04				
				EN	19:35	72 06.538	119 25.852	106.4				
05	PWS-01	BON	452	BE	19:43	72 06.544	119 25.871	106.3		SHM	130m wire out btm = 106.4	
				EN	20:04	72 07.324	119 25.167	102.7			L = 45' target = 93.0m	

Event Type:

BOT = Bottle cast, no CTD
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ROS = Rosette plus CTD
WZA = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)

MPS = Multi-net

MWT = Midwater trawl

BOX = Box Core

Time Code:

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BO = Arrive on Bottom Time

UP = Start up Time

EN = End Time

Notes: _____

Transmissometer to be cleaned before each cast, do not use Ammonia products

- ① Trawltype only lasts 2 days, with minimum towing (5 x 20 min tows in 2 days)
→ also only charges to 80% according to computer display
↳ return to Thomas for servicing

PWS-01, 05 Sept 2014:

- broken ice, melting, busy bits
- not as thick as ice chart showed on 3rd Sept 2014
- no ice chart for 04 Sept, or 5th Sept as of yet
- after str PWS-01, will head north to assess ice conditions; may drop W2R w/ seabird CTD

DAILY SCIENCE LOG

Page _____

Month <u>Sept</u>				Year <u>2014</u>				Ship <u>Frosti</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
05	PWS-01	BOX	453	BE	20:21	72 06.514	119 25.721	105.9		SPA	box-239	success
				BO	20:23	72 06.512	119 25.772	105.5				
				EN	20:26	72 06.512	119 25.824	105.5				
05	PWS-01	BOX	454	BE	20:33	72 06.525	119 25.945	105.6		SPA	box-240	
				BO	20:35	72 06.531	119 25.976	105.3				
				EN	20:38	72 06.536	119 25.022	105.5				
05	PWS-01	BBT	455	BE	20:52	72 05.981	119 25.404	105.3		SPA	bbt-129	
				BO	21:04	72 06.551	119 25.640	105.2				
				EN	21:14	72 06.876	119 25.580	106.6				
05	PWS-01	W2A	456	BE	21:49	72 07.421	119 24.976	104.9			W2a-154	
				BO	21:50	72 07.348	119 24.048	105.3				
				EN	22:10	72 06.351	119 25.870	104.1				
06	PWS-02	CTD	457	BE	00:22	72 19.002	118 52.520	103		H.M.	CTD ONLY	
				BO	00:25	72 18.183	118 52.459		95			
				EN	00:27	72 18.976	118 52.381					
06	PWS-02	W2A	458	BE	00:50	72 19.666	118 52.042	102.2			W2A-155	
				BO	00:53	72 19.556	118 51.988	104.5			mud on rollers looks soft	
				EN	01:13	72 18.507	118 52.381	101.5				

Event Type:

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ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
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Time Code:

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UP = Start up Time
EN = End Time

Notes: _____

Transmissometer to be cleaned before each cast, do not use Ammonia products

05-Sept- P.M.

light, intermittent snow. Calm, almost no wind (W). 0 waves, 9/10⁺ overcast.

PWS-02 → ice extent was farther north than anticipated @ PWS-01; decided to head north as far as we could before hitting the ice wall; bonus station to deploy CTD + WRA.
→ head back to PWS-01 to begin hydroacoustics work

DAILY SCIENCE LOG

Page _____

Month <u>Sept</u>				Year <u>2014</u>			Ship <u>Frothi</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
07	AMN-01	ROS	459	BE	1304	70 50.326	119 46.981	255		H.M.	1 ST CAST
				BO	1309	70 50.306	119 46.895		245		33.1 SAL = 115
				EN	1321	70 50.268	119 46.747				CHL MAX = 45m
07	AMN-01	ROS	460	BE	1345	70 50.206	119 46.376	256		H.M.	2 ND CAST
				BO	1346	70 50.148	119 46.349		70		CHL MAX = 45
				EN	1356	70 50.164	119 46.202				
07	AMN-01	MPS	461	BE	14:03	70 50.132	119 46.084	257		SAM	250-200, 200-100, 100-50, 50-25, 25-0
				BO	14:10	70 50.104	119 45.964	257.9	246		
				EN	14:18	70 50.067	119 45.835				
07	AMN-01	BON	462	BE	14:25	70 50.081	119 45.643	256		SAM	wire out = 285 btm = 257.6 wire in = 40' target = 200m
				EN	14:41	70 50.393	119 47.404	256			
07	AMN-01	BOX	463	BE	14:57	70 50.275	119 46.708	255		SPA	box-241
				BO	15:01	70 50.253	119 46.662	255			mod on one edge of box, other side leaking.
				EN	15:06	70 50.220	119 46.542	255			not a good sample. Rocks in sed. <u>Dumped sample</u>
07	AMN-01	BOX	464	BE	15:09	70 50.195	119 46.443	256		SPA	box-242
				BO	15:13	70 50.167	119 46.349	257			sealed nicely. not sure how slumped, will keep
				EN	15:18	70 50.126	119 46.271	255			
07	AMN-01	BOX	465	BE	15:29	70 50.312	119 46.669	256		SPA	box 243
				BO	15:32	70 50.286	119 46.613	255			

Event Type:

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W2A = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

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Notes: _____

Transmissometer to be cleaned before each cast, do not use Ammonia products

Version: 22 May 2014

Sept 7th - 9/10th overcast clearing mid-morning to 6/10th overcast.
Sunny, no precipitation, Wind NW 10-15 knots. Air temp. = Very cold.

DAILY SCIENCE LOG

Month <u>Sept</u>				Year <u>2014</u>		Ship <u>Frosti</u>			Cruise ID <u>2014-56</u>			Page <u> </u>
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
07	AMN_01	BOX	465	EN	15:37	70 50.248	119 46.520	255		SPA	box-243 no sample	
07	AMN_01	BOX	466	BE	15:41	70 50.208	119 46.373	255		SPA	box-244	
				BO	15:45	70 50.177	119 46.212	256			didn't seal, enough sample for some infauna & SI	
				EN	15:49	70 50.131	119 46.151	257				
07	AMN_01	W2A	467	BE	16:24	70 50.257	119 47.809	254		SPA	W2A-156 (10 min tow) → See bracket sheet for more info	
				BO	16:27	70 50.254	119 47.485	255			no blot - bottom is 'gnarley'	
				EN	16:37	70 50.178	119 45.914	256			*Screenshot 7sep2014-amm-01-250m-w2a-156"	
07	AMN_01	W2A	468	BE	17:09	70 50.428	119 47.494			SPA	W2A-157 Last tow good → trying for 2nd (10 min tow)	
				BO	17:10	70 50.243	119 47.615	253			No recordings → camera started recording when it came back on ship, must have hit wrong button when launching.	
				EN	17:20	70 50.183	119 49.138	258			1st CAST 33.1 SAL = 106	
07	AMN_02	ROS	469	BE	21:36	70 13.140	119 28.235	397		H.M.	CHL MAY = (45)	
				BO	21:45	70 13.024	119 28.226		390			
				EN	22:00	70 12.859	119 28.232					
07	AMN_02	ROS	470	BE	22:38	70 13.120	119 28.597	398		H.M.	2nd CAST	
				BO	22:41	70 13.100	119 28.640		70			
				EN	22:48	70 13.043	119 28.693					
07	AMN_02	MPS	471	BE	22:58	70 13.213	119 28.062	395		8am	385-200, 200-100, 100-50, 50-25, 25-0 NO flow data!	
				BO	23:08	70 13.167	119 28.161	395.7	380			
				EN	23:15	70 13.143	119 28.203	397.2			✓ flow readings cutting in + out	

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Notes:

Transmissometer to be cleaned before each cast, do not use Ammonia products

DAILY SCIENCE LOG

Page _____

Month September				Year 2014			Ship F/V Froshi			Cruise ID 2014-56			
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...		Longitude (W) DDD MM.MM...		Bottom Depth	Max Depth	Logger's initials	Comments
07	AMN-02	BON	472	BE	23:24	70	13.125	119	28.208	397		SPM	wire out = 290 target = 200m wire in = 45 bottom = 395.9m
				EN	23:44	70	13.225	119	30.439		~200		
08	AMN-02	BOX	473	BE	00:02	70	13.135	119	28.066	398		SPA	box 245 area not much sample → can take for
				BO	00:07	70	13.122	119	28.121	397			Stable isotopes; no time to re-deploy
				EN	00:16	70	13.114	119	28.155	397			
08	AMN-02	WZA	474	BE	00:46	70	13.125	119	28.130			SPA	WZA-158
				BO	00:51	70	13.121	119	28.941	398			
				EN	01:11	70	13.162	119	31.907	399			
08	DOL-05	ROS	475	BE	13:11	69	44.088	117	23.130	132		H.M.	1 st CAST 33-1 SAL =
				BO	13:14	69	44.094	117	23.143		125		CHL MAX = 30
				EN	13:20	69	44.090	117	23.203				* NOTE NAME CHANGE DOL-01 TO DOL-05
08	DOL-05	ROS	476	BE	13:36	69	44.095	117	23.366	127		H.M.	BOT 3 LEAKED ON 1 st CAST
				BO	13:40	69	44.101	117	23.402		80		Re do 80m BOT on 2 nd CAST
				EN	13:51	69	44.112	117	23.524				
08	DOL-05	MPS	477	BE	14:01	69	44.119	117	23.676	124.7		SPM	H. just beyond 0.2km distance from CTD "spot", deploy anyway
				BO	14:05	69	44.136	117	23.691	125.7	110		
				EN	14:10	69	44.167	117	23.749	125			
08	DOL-05	BON	478	BE	14:17	69	44.177	117	23.692	124		SPM	wire out = 155m btm 3 = 124 target = 110
				EN	14:36	69	44.105	117	22.014	148			Attowed deeper than expected! good seeping for trawling

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Notes: _____

Transmissometer to be cleaned before each cast, do not use Ammonia products

Sept 8 AM:

Wind N 15 knots, 0.5 m waves, 10/10 overcast

This page is for any notes or observations

DAILY SCIENCE LOG

Page _____

Month <i>September</i>				Year <i>2014</i>				Ship <i>F/V Frosti</i>			Cruise ID <i>2014-56</i>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
08	DOL-05	BOX	479	BE	14:50	69 44.035	117 22.932	139		8Am	box-246	
				BO	14:52	69 44.045	117 22.954	135			rock in sample!	
				EN	14:55	69 44.068	117 22.988	135				
08	DOL-05	BOX	480	BE	14:59	69 44.092	117 23.038	133		SPA	box-247 good sample; keep 1 box	
				BO	15:01	69 44.108	117 23.059	132				
				EN	15:05	69 44.135	117 23.091	131				
08	DOL-05	WZA	481	BE	15:27	69 44.248	117 22.550	125		SPA	wza-159 no bbt	
				BO	15:29	69 44.200	117 22.729	125				
				EN	15:49	69 43.825	117 25.412	135				
08	DOL-04	ROS	482	BE	1712	69 38.357	117 47.503	373		H.M.	1 ST CAST 33.1 SAL = 91 m	
				BO	1720	69 38.314	117 47.316		365		CHL MAX = 73 m	
				EN	1735	69 38.207	117 47.063					
08	DOL-04	ROS	483	BE	1759	69 38.354	117 47.286	351		H.M.	2 ND CAST CHL MAX = 73	
				BO	1801	69 38.336	117 47.255		73		NO SALINITIES (SHORT OF BOTTLES)	
				EN	1811	69 38.293	117 47.094					
08	DOL-04	MPS	484	BE	1821	69 38.482	117 47.288	372		SPM		
				BO	1831	69 38.436	117 47.139	372				
				EN	1841	69 38.372	117 46.925	371				

Event Type: BBT = Benthic Beam Trawl Time Codes:

Event Type:

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 BON = Bongo (note Hor/Obl/Ver)
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Time Code:

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Transmissometer to be cleaned before each cast, do not use Ammonia products

Notes: _____

DAILY SCIENCE LOG

Page _____

Month <u>September</u>				Year <u>2014</u>		Ship <u>F/V Frosh</u>				Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
08	DOL-04	BON	485	BE	18:47	69 38.378	117 46.817	372		SPM	Wire out = 285m Wire in = 45' target = 200m btmg = 370m
				EN	19:07	69 38.808	117 48.442	370	200m		
08	DOL-04	BOX	486	BE	19:54	69 38.584	117 47.668	370		SPA	box-248 good sample
				BO	19:59	69 38.593	117 47.586	371			
				EN	20:06	69 38.563	117 47.479	372			
08	DOL-04	BOX	487	BE	20:14	69 38.520	117 47.353	372		SPA	box-249 good sample
				BO	20:19	69 38.491	117 47.279	372			
				EN	20:26	69 38.468	117 47.144	372			
08	DOL-04	BBT	488	BE	20:39	69 37.746	117 45.691	368		SPA	bbt-130 Lycodes sagittarius?
				BO	20:57	69 38.402	117 47.405	372			
				EN	21:07	69 38.989	117 47.977	372			
08	DOL-04	WZA	489	BE	21:48	69 39.040	117 48.571	370		SPA	Wza-160 Trawleye not working; no net height data → no time to re-deploy
				BO	21:50	69 38.966	117 48.448	371			
				EN	22:10	69 38.171	117 46.855	371			
08	DOL-03	ROS	490	BE	23:50	69 32.160	118 13.190	439		Hm.	1 st CAST
				BO	23:58	69 32.095	118 13.020		430		33.1 SAL = 131
09				EN	00:13	69 31.995	118 12.790				CHL MAX = 46

Event Type:

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Transmissometer to be cleaned before each cast, do not use Ammonia products

Notes: _____

Sept 8 2014

Winds calmer than this morning (<10 knots), N. 9/10 overcast, Waves 0-5m

DAILY SCIENCE LOG

Page _____

Month <u>September</u>				Year <u>2014</u>			Ship <u>F/V Frosti</u>			Cruise ID <u>2014-56</u>		
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
09	DOL-03	ROS	491	BE	0034	69 32.100	118 13.002	440	70	H.M.	2 nd CAST	
				BO	0037	69 32.086	118 13.057				CHL MAX = 46m	
				EN	0046	69 32.035	118 12.910					
09	DOL-03	MPS	492	BE	0054	69 31.979	118 12.749	425		SAM	A bit late (7pm) but at a bright evening; brighter than at 7am.	
				BO	01:04	69 31.931	118 12.582	434	420			
				EN	01:12	69 31.908	118 12.444	430				
09	DOL-03	BON	493	BE	01:19	69 31.902	118 12.292	424		SAM	L' = 415 Wire out = 285m	
				EN	01:38	69 32.368	118 13.442	437				
09	DOL-03	CTD	494	BE	1305	69 32.115	118 13.048	440		H.M.	CTD ONLY	
				BO	1313	69 32.140	118 13.033		430			
				EN	1320	69 32.162	118 12.966					
09	DOL-03	BOX	495	BE	1327	69 32.189	118 12.894	428		SAM	box-250	
				BO	1333	69 32.217	118 12.828	424				
				EN	1341	69 32.248	118 12.732	427			✓ good one.	
09	DOL-03	BOX	496	BE	1351	69 32.155	118 13.192	439		SAM	box-251; both boxes bent, water o-rings at rivets; repair both boxes	
				BO	1357	69 32.223	118 13.206	437	437		good mud at this site!	
				EN	14:06	69 32.268	118 13.138	431			✓ good one.	
09	DOL-03	BBT	497	BE	14:26	69 31.189	118 11.462	431		SPA	bbt-131	
				BO	14:58	69 32.532	118 13.636	432				

Event Type:

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Notes: _____

Transmissometer to be cleaned before each cast, do not use Ammonia products

Version: 22 May 2014

This page is for any notes or observations

Sept 9th AM: Winds light, 5 knots, SW. Waves Om. Sunny 1/10 overcast (almost no clouds)

DAILY SCIENCE LOG

Page _____

Month <u>September</u>				Year <u>2014</u>		Ship <u>FN Frosti</u>				Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
09	DOL-03	BBT	497	EN	15:08	69 32.783	118 14.103	436		SPA	blt-131 Turbot! Greenland Halibut! ^{whatever you want to call it! (R. hippoglossoides)}
09	DOL-03	WZA	498	BE	15:47	69 32.584	118 13.828	437		SPA	Wza-161
				BO	15:52	69 32.420	118 13.493	435			
				EN	16:12	69 31.585	118 12.020	435			
09	DOL-02	ROS	499	BE	18:08	69 25.938	118 41.371	269		H.M.	1 st CAST 33.1 SAL = 155
				BO	18:13	69 25.924	118 41.136		260		CHL MAX = 50
				EN	18:26	69 25.896	118 40.529				CTD file name = 2014-56-0498 and -0499
09	DOL-02	ROS	500	BE	18:48	69 25.993	118 41.494	276		H.M.	2 nd CAST 34.0 SAL 13.03.2015.
				BO	18:50	69 25.984	118 41.402		70		
				EN	18:59	69 25.976	118 40.985				
09	DOL-02	MPS	501	BE	19:14	69 25.959	118 41.656	236		SAM	
				BO	19:20	69 25.974	118 41.562	256	240		* just missed a GIANT 15m Hump!! when
				EN	19:25	69 25.957	118 41.356	278			
09	DOL-02	BON	502	BE	19:57	69 25.641	118 40.160	2733		SAM	
				EN	20:15	69 26.096	118 41.577	2788	300		went win out = 295m; L =
09	DOL-02	BOX	503	BE	20:29	69 25.970	118 41.385	276			box-252
				BO	20:33	69 25.954	118 41.215	273			no sample; some gravel
				EN	20:39	69 25.947	118 40.938	277			

Event Type:

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Notes: _____

DAILY SCIENCE LOG

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Month <u>September</u>				Year <u>2014</u>				Ship <u>F/V Frosti</u>			Cruise ID <u>2014-56</u>		Page <u> </u>
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
09	DOL-02	BOX	504	BE	20:44	69 25.935	118 40.775	279		SPA	box - 253		
				BO	20:48	69 25.916	118 40.602	288					
				EN	20:52	69 25.908	118 40.425	286					
09	DOL-02	W2A	505	BE	21:23	69 25.909	118 40.031	274			No bot; bottom too hard.		
				BO	21:24	69 25.870	118 40.931	274			W2a-162 Planned for a 10 ^{min} tow → 9 mins into tow		
				EN	21:40	69 25.441	118 38.986	263			bottom looked good enough to keep going; had to haul back at 21:40 → 16 min tow		
09	AXL-01	ROS	506	BE	20:43	69 22.724	118 46.134	145		H.M.			
				BO	20:46	69 22.711	118 45.937		135		ONE CAST 33.1 sal = → DEEP		
				EN	20:58	69 22.669	118 45.304				CHL MAX = 40.		
09	DOL-01	MPS	507	BE	23:16	69 22.968	118 46.370	168		SAM			
				BO	23:22	69 22.895	118 46.205	175	140		bottom uneven, don't want to get too close (>10m clearance needed)		
				EN	23:27	69 22.878	118 45.941	172					
09	DOL-01	BON	508	BE	23:47	69 22.548	118 45.185	156	150	SAM	hairs down slope		
10				EN	00:07	69 23.045	118 46.991	160			wire out - 210m target 3=150m Wire 2. = 45°		
10	DOL-01	BOX	509	BE	00:31	69 22.809	118 45.932	178		SPA	box - 254		
				BO	00:34	69 22.821	118 45.818	184.7			GOOD ONE!		
				EN	00:39	69 22.822	118 45.633	195.5					

Event Type: BBT = Benthic Beam Trawl Time Code:

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Notes: _____

Transmissometer to be cleaned before each cast, do not use Ammonia products

DAILY SCIENCE LOG

Month September

Year 2014

Ship F/V Frosti

Page _____

Cruise ID	2014-56
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[illegible]

Event Type:

BOT = Bottle cast, no CTD
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Transmissometer to be cleaned before each cast, do not use Ammonia products

Notes:

Version: 22 May 2014