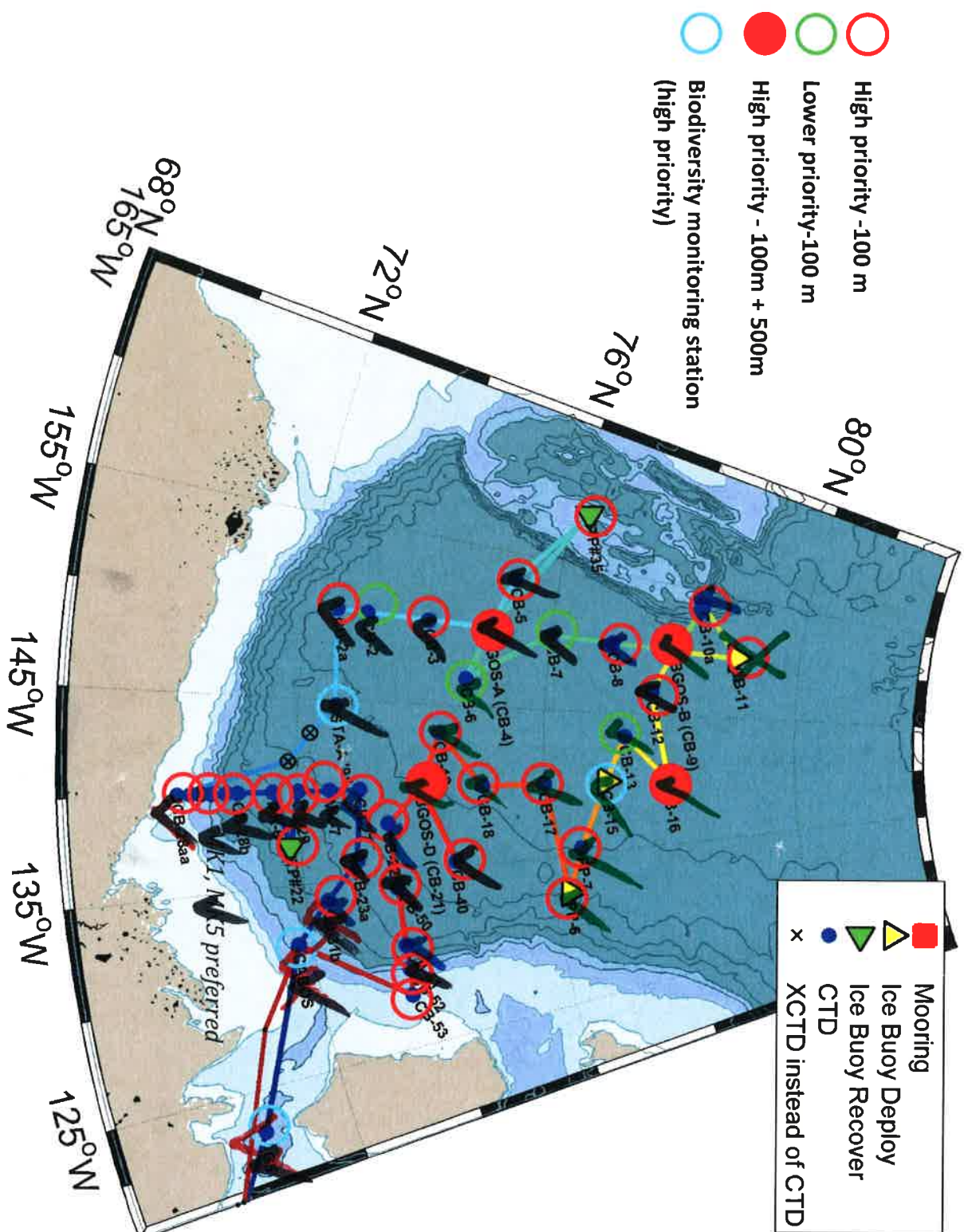
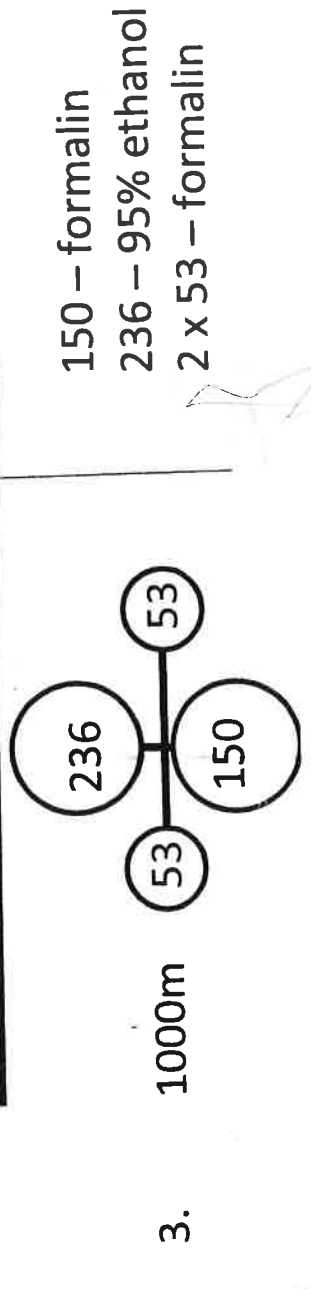
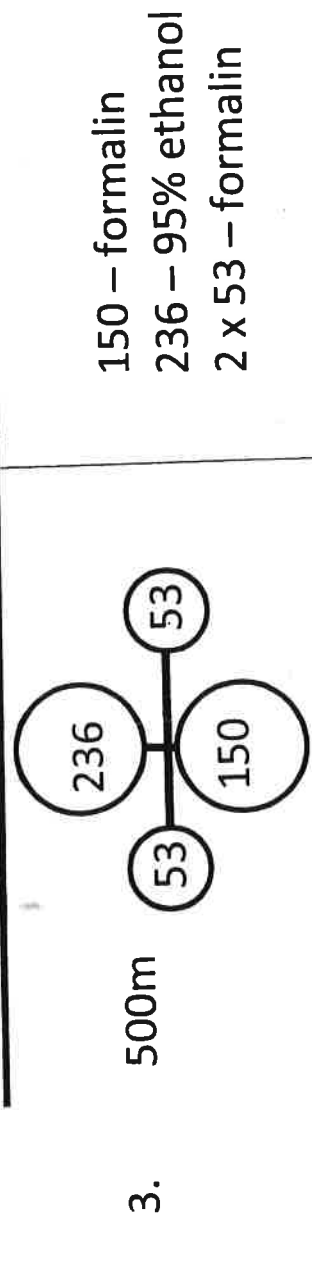
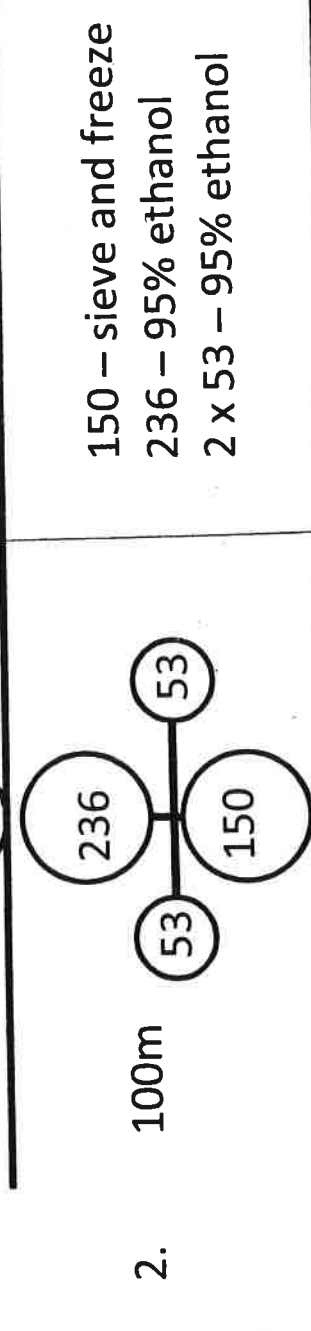
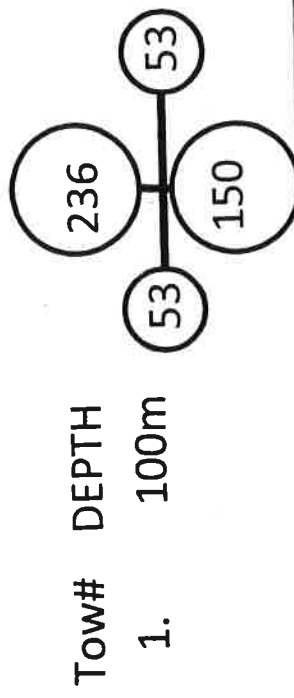


LSSL NET TOWS CANADA BASIN 2010



LSSL NET TOWS CANADA BASIN 2009 - 2010 PRESERVATION METHOD

		2 or more tows	If only 1 tow possible
		(Preferred option!)	
		150 – formalin	<u>150 – 95 % ethanol</u>
		236 – formalin	236 – formalin
		2 x 53 – formalin	2 x 53 – formalin



150 – sieve and freeze
236 – 95% ethanol
2 x 53 – 95% ethanol

150 – formalin
236 – 95% ethanol
2 x 53 – formalin

150 – formalin
236 – 95% ethanol
2 x 53 – formalin

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 1

Project(s): 2015-Arctic Contact: Kelly Young

Date: 16 Sep 2010 Time: 18:20 local
 day month year Time: 01:20 UTC
 Net Event # 01 CTD # 01 Station: Ag-5

Latitude: 70° 33.59' N Longitude: 122° 54.78' W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 15 Bottom Depth: 647
 Net Type: B Tow Type: VNH RBR 2: 97.9

	Mesh	Flow serial#	Flow start	Flow end	Preservative	Notes
Net1	236	5294	9818	10829	form	
Net2	150	7133	3649	4325		1 large beaver, 2 small Pleurobr in sample
Net3	53	#2	74747.5	77190.1		

Notes: * 2 #1 40375.7 40799.8

on upward, angle went to about 45° aft

Date: 16 Sep 2010 Time: 18:36 local
 day month year Time: 01:36 UTC
 Net Event # 02 CTD # 01 Station: Ag-5

Latitude: 70° 33.62' N Longitude: 122° 54.50' W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 646
 Net Type: B Tow Type: VNH RBR 2: 100.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	10829	18854	etOH
Net2	150	7133	4325	4966	froze -80
Net3	53	#2	77190.1	77557.5	etOH

Notes: * 2 #1 40799.8 41116.4

juvenile Arctic cod removed + froze -80
 from 150µm net

Date: 17 Sept 2010 Time: 07:39 local
 day month year Time: 14:39 UTC
 Net Event # 3 CTD # 2 Station: CABOS

Latitude: 71° 46.90' N Longitude: 131° 51.94' W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 1100
 Net Type: B Tow Type: VNH RBR 2: 100.7

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	235	5294	9890	9991	form
Net2	150	7133	4952	5569	form
Net3	53	#2	77557.5	99917.8	* form

Notes: * 2 #1 41116.9 (41456.3

most likely
 "77"

Plankton Net Tow Log Sheet

Survey #: 2010-07

Vessel: LSSL

Page: 2

Project(s): Arctic

Contact:

Date: 17 Sept 2010 Time: 07:55 local
 day month year Time: 14:55 UTC
 Net Event # 4 CTD # 02 Station: CABOS

Latitude: 71° 46.879 N Longitude: 131° 51.935 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 1100
 Net Type: Bongo Tow Type: UNH RBR 2: 101.2

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	9991	9925*	95% ETOH
Net2	150	7133	5567	6151	-80
Net3	53	2	99917.8	99274.2	95% ETOH

Notes: x2 1 41456.3 41789.2

-TSK 5294 zero'd for next cast

Date: 17 Sept 2010 Time: 12:53 local
 day month year Time: 19:53 UTC
 Net Event # 5 CTD # 03 Station: CB 316

Latitude: 72° 21.190 N Longitude: 133° 59.851 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2052
 Net Type: Bongo Tow Type: UNH RBR 2: 98.5

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	00531	01104	FORM
Net2	150	7133	06152	06754	FORM
Net3	53	2	22302.0	22168.4	FORM

Notes: x2 1 41790.2 41741.0 FORM

Date: 17 SEPT 2010 Time: 1308 local
 day month year Time: 2008 UTC
 Net Event # 6 CTD # 03 Station: CB 316

Latitude: 72° 21.198 N Longitude: 133° 59.861 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2052
 Net Type: Bongo Tow Type: UNH RBR 2: 101.0

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	01104	011481	95% ETOH
Net2	150	7133	06754	07391	-80
Net3	53	2	22168.4	23051.7	95% ETOH

Notes: x2 1 41941.0 42277.1

old 53um fishing poorly - may be twisting in weightline

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 3
Project(s): Arctic Contact: Kelly Young

Date: 17 SEP 2010 Time: 1953 local
day month year Time: 0253 UTC 18-SEPT
Net Event # 7 CTD # 04 Station: CB-60

Latitude: 71 18.749 N Longitude: 134 19.794 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 1036
Net Type: BODAB Tow Type: VNH RBR 2: 98.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	01481	01671	FORM
Net2	150	7133	07389	07991	FORM
Net3	53x	2	23051.4	23395.1	FORM

Notes: 2 1 4227.1 42620.2

Date: 17 SEP 2010 Time: 2013 local
day month year Time: 0313 UTC SEPT 18
Net Event # 8 CTD # 04 Station: CB-60

Latitude: 71 18.738 N Longitude: 134 19.876 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 1036
Net Type: BODAB Tow Type: VNH RBR 2: 98.0

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	01671	02322	95% FDMH
Net2	150	7133	07991	08619	-80
Net3	53x	2	23395.1	23416.4	95% FDMH

Notes: 2 1 42620.2 43028.4

Date: 18 SEPT 2010 Time: 1850 local
day month year Time: 0150 UTC SEPT 19
Net Event # 9 CTD # 05 Station: CB-61

Latitude: 71 11.026 N Longitude: 134 12.137 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 701
Net Type: BODAB Tow Type: VNH RBR max: 100.9m

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	02324	02891	FORM
Net2	150	7133	08621	09299	FORM
Net3	53	1	43028.4	43320.2	FORM

Notes: 53 2 23416.4 23753.2

Problems with A-frame

* Net stayed down @ 100m for 9 minutes

Plankton Net Tow Log Sheet

Survey #: 2010-07

Vessel: LSSL

Page: 1

Project(s): ARCTIC

Contact: KELLY LARSON

Date: 18-SEPT-2010

Time: 1904

local

day

month

year

Time: 0804

UTC

Sept 17

Net Event # 10

CTD # 65

Station: CB-61

Latitude: 71 11.983 N

Longitude: 134 12.226 W

deg

min.dec

deg

min.dec

Wire out: 100

Wire angle: 0

Bottom Depth: 701

Net Type: BOWDO

Tow Type: VNH

RBR max: 99.9

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	02891	03406	95% ETOH
Net2	150	7133	09299	09758	80
Net3	53	1	43320.2	43620.0	95% ETOH
Notes:	53	2	23753.2	24046.4	

Date: 19 Sept 2010

Time: 0148

local

day

month

year

Time: 0848

UTC

Net Event # 11

CTD # 9

Station: CB 65

Latitude: 70 51.59 N

Longitude: 133 42.14 W

deg

min.dec

deg

min.dec

Wire out: 65

Wire angle: 0

Bottom Depth: 77

Net Type: B

Tow Type: VNH

RBR z: 65.3

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	3400	3752	form
Net2	150	7133	9762	10141	95% ETOH
Net3	53	1	43619.9	43811.3	form
Notes:	53	2	24046.0	24271.5	

unscheduled net, added in

Date: 19 SEPT 2010

Time: 2227

local

day

month

year

Time: 0527

UTC

Net Event # 12

CTD # 10

Station: MK-3

Latitude: 70 34.162 N

Longitude: 140 00.413 W

deg

min.dec

deg

min.dec

Wire out: 100

Wire angle: 0

Bottom Depth: 1305

Net Type: BOWDO

Tow Type: VNH

RBR z: 102.1

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	63755	64548	FOCW
Net2	150	7133	10168	11039	
Net3	53	1	43811.3	44279.4	
Notes:	53	2	24271.5	24756.3	

End Box 1
1 jar in box 2

Box 2

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	5785	5885 *	c4OH
Net2	150	7133	1285	12876	-80
Net3	53	1	44853.8	45216.9	7 c4OH
Notes:	53	2	25216.9	25698.2	

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 6
Project(s): Arctic Contact:

Date: 20 Sep 2010 Time: 0400 local
day month year Time: 1100 UTC
Net Event # 16 CTD # 13 Station: MK-1

Latitude: 70 13.52 N Longitude: 140 0.14 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 225
Net Type: B Tow Type: VNH RBR-2: 100.5

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	5885	6290	form
Net2	150	7133	13875	14489	
Net3	53	1	45216.9	45529.7	

Notes: 53 2 25698.1 26076.8

emphasiids in sample

Date: 20 Sep 2010 Time: 0414 local
day month year Time: 1114 UTC
Net Event # 17 CTD # 13 Station: MK-1

Latitude: 70 13.51 N Longitude: 140 0.06 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 225
Net Type: B Tow Type: VNH RBR-2: 99.3

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236		6390	6958	+10H
Net2	150		14489	15100	-80
Net3	53		45529.7	45865.5	+10H

Notes: 53 26076.8 26436.5

Date: 20 Sept 2010 Time: 0551 local
day month year Time: 1251 UTC
Net Event # 18 CTD # 14 Station: CB 28aa

Latitude: 70 0.20 N Longitude: 140 0.95 W
deg min.dec deg min.dec

Wire out: 48 Wire angle: 0 Bottom Depth: 56
Net Type: B Tow Type: VNH RBR-2: 47.6

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	8	6955	7250	form
Net2	150		15100	15400	
Net3	53		45865.5	45963.6	

Notes: 53 26436.9 26629.4

Full algae.
- preserved in 250ml jars

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 7
Project(s): Arctic Contact: Kelly Young

Date: 20 Sep 2010 Time: 06:04 local
day month year Time: 13:04 UTC
Net Event # 19 CTD # 14 Station: CB 2899

Latitude: 70 0.16 N Longitude: 140 1.28 W
deg min.dec deg min.dec

Wire out: 49 Wire angle: 0 Bottom Depth: 59
Net Type: B Tow Type: VNH RBR 2: 49.0

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	7250	7405	E+OH
Net2	150	7133	15400	15675	-80
Net3	53	1	45963.6	46104.9	E+OH

Notes: 53 2 26629.4 26807.6

Full algae. Preserved in 250mL jars.

Date: 20 Sep 2010 Time: 09:40 local
day month year Time: 16:40 UTC
Net Event # 20 CTD # 15 Station: MK 39

Latitude: 70 39.84 N Longitude: 140 0.3 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 1305
Net Type: B Tow Type: VNH RBR 2: 103.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236		1405	7510	form
Net2	150		15675	16310	
Net3	53		46104.9	46267.6	

Notes: 53 26807.6 27171.2

TS 5294 not working consistently...

Date: 20 Sep 2010 Time: 09:56 local
day month year Time: 16:56 UTC
Net Event # 21 CTD # 15 Station: MK 39

Latitude: 70 39.80 N Longitude: 140 0.5 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 1315
Net Type: B Tow Type: VNH RBR 2: 101.5

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236		7510	8100	E+OH
Net2	150		16310	16909	-80
Net3	53		46267.6	46494.9	E+OH

Notes: 53 27171.2 27542.2

end Box 2

Plankton Net Tow Log Sheet

Survey #: ARCTIC 2010-07 Vessel: LSSL Page: 8

Project(s): ARCTIC Contact: KELLY LINDEN

Date: 20 SEPT 2010 Time: 1403 local
 day month year Time: 2103 UTC
 Net Event # 22 CTD # 16 Station: MK-4

Latitude: 70 48.539 N Longitude: 140 01.415 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 1437
 Net Type: BON/10 Tow Type: VNH RBR Z: 102.6

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	<u>236</u>	<u>5294</u>	<u>8101</u>	<u>8709</u>	<u>FORM</u>
Net2	<u>150</u>	<u>7133</u>	<u>16903</u>	<u>17512</u>	
Net3	<u>53</u>	<u>1</u>	<u>41649.50</u>	<u>416798.4</u>	
Notes:	<u>53</u>	<u>2</u>	<u>27542.1</u>	<u>27908.2</u>	

Date: 20 SEPT 2010 Time: 1835 local
 day month year Time: 0135 UTC
 Net Event # 23 CTD # 17 Station: MK-6

Latitude: 71 34.877 N Longitude: 140 00.334 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2476
 Net Type: BON/10 Tow Type: VNH RBR: 102.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	<u>236</u>	<u>5294</u>	<u>08709</u>	<u>09052</u>	<u>FORM</u>
Net2	<u>150</u>	<u>7133</u>	<u>17539</u>	<u>18138</u>	
Net3	<u>53</u>	<u>1</u>	<u>46802.4</u>	<u>47117.0</u>	
Notes:	<u>53</u>	<u>2</u>	<u>27933.7</u>	<u>28285.2</u>	

Date: 20 SEPT 2010 Time: 1845 local
 day month year Time: 0145 UTC
 Net Event # 24 CTD # 17 Station: MK-6

Latitude: 71 34.877 N Longitude: 140 00.334 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2476
 Net Type: BON/10 Tow Type: VNH RBR: 104.9

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	<u>236</u>	<u>5294</u>	<u>09052</u>	<u>09712</u>	<u>95% EtoH</u>
Net2	<u>150</u>	<u>7133</u>	<u>18138</u>	<u>18773</u>	<u>-80</u>
Net3	<u>53</u>	<u>1</u>	<u>47117.0</u>	<u>47328.6</u>	<u>95% EtoH</u>
Notes:	<u>53</u>	<u>2</u>	<u>28283.2</u>	<u>28647.5</u>	

BOX 3
 * 2ND NET
 AT THIS STATION
 CANCELED DUE
 TO SWAPPED
 COAST LINES
 (2)

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSI Page: 9
Project(s): ARCTIC Contact: Kelly Luning

Date: 21 Sept 2010 Time: 01:20 local
day month year Time: 08:20 UTC
Net Event # 25 CTD # 19 Station: CB286

Latitude: 71 0.56 N Longitude: 140 0.06 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2100
Net Type: Bongo Tow Type: VNH RBR 2 - 108.6

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	9715	10471	Form
Net2	150	7133	18772	19530	
Net3	53	1	47328.6	47609.8	

Notes: 53 2 286 49.5 49116.0

* Jelly from #101 net added
- change old 53µ net for new, changed all cod end weight lines (shorter)

Date: 21 Sept 2010 Time: 01:39 local
day month year Time: 08:39 UTC
Net Event # 26 CTD # 19 Station: CB286

Latitude: 71 0.56 N Longitude: 140 0.06 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2100
Net Type: Bongo Tow Type: VNH RBR 2 - 115.4

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	10471	11232	952 ETOH
Net2	150	7133	19530	20361	-80
Net3	53	1	47609.8	47896.5	952 ETOH

Notes: 53 2 49116.6 49576.1

* 150µm net: Jelly removed + put in 150µ formalin sample (net 25)

Date: 21 Sep 2010 Time: 09:57 local
day month year Time: 16:57 UTC
Net Event # 27 CTD # 20 Station: CB29

Latitude: 72 0.17 N Longitude: 140 2.35 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2690
Net Type: B Tow Type: VNH RBR 2: 100.6

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236		11278	11786	form
Net2	150		20371	20957	
Net3	53		67896.7	(49476.0)	

Notes: 53 49576.2 49929.7

In Ice!

should be 68?

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 10
Project(s): 2015 Contact: Kelly Young

Date: 21 Sep 2010 Time: 10:19 local
day month year Time: 17:19 UTC
Net Event # 28 CTD # 20 Station: CB 29

Latitude: 71 59.91 N Longitude: 140 2.97 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2693
Net Type: B Tow Type: VNH RBR Z: 98.1

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	11786	12400	E10H
Net2	150	7133	20957	21565	-80
Net3	53	1	44476.0	44872.3	E10H

Notes: 53 2 44929.7 50280.7

In Ice!

Date: 21 SEPT 2010 Time: 16:37 local
day month year Time: 23:37 UTC
Net Event # 29 CTD # 21 Station: MK-7

Latitude: 72 31.542 N Longitude: 140 01.579 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2998
Net Type: 20060 Tow Type: VNH RBR Z: 100.4

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	12403	12681	FORM
Net2	150	7133	21565	22122	
Net3	53	1	00000	0291.7	

Notes: 63 2 00000.2 00317.2

Date: 21 SEPT 2010 Time: 16:52 local
day month year Time: 23:52 UTC
Net Event # 30 CTD # 21 Station: MK7

Latitude: 72 31.546 N Longitude: 140 00.633 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2978
Net Type: 20060 Tow Type: VNH RBR Z: 100.5

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	12681	12869	FORM
Net2	150	7133	22122	22779	-80
Net3	53	1	6291.7	0632.9	E10H

Notes: 53 2 00617.2 00664.3

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 11
Project(s): J015 Contact: Kelly Young

Date: 21 SEPT 2010 Time: 23:29 local
day month year Time: 06:29 UTC
Net Event # 21 CTD # 22 Station: CB-27

Latitude: 72 59.688 N Longitude: 140 1.340 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 60 Bottom Depth: 3195
Net Type: Bongo Tow Type: VNH RBR 2: 82.1

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	12869	13871	Form
Net2	150	7133	22729	23769	
Net3	53	1	638.0	1118.0	
Notes:	53	2	664.3	1176.9	

- ship backing up due to ice, high wire angle at bottom

Date: 21 SEPT 2010 Time: 23:42 local
day month year Time: 06:42 UTC
Net Event # 22 CTD # 22 Station: CB-27

Latitude: 72 59.633 N Longitude: 140 1.528 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 10 Bottom Depth: 3195
Net Type: Bongo Tow Type: VNH RBR 2: 95.9

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	13871	13881	Form
Net2	150	7133	23769	24442	-Bo
Net3	53	1	1118.0	1598.9	Form
Notes:	53	2	1176.9	1612.9	

Date: 22 Sep 2010 Time: 06:42 local
day month year Time: 13:42 UTC
Net Event # 33 CTD # 23 Station: CB-22

Latitude: 73 26.88 N Longitude: 138 2.52 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3118
Net Type: B Tow Type: VNH RBR: 100.7

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	13882	13929	Form
Net2	150	7153	24442	24890	
Net3	53	1	01598.8	01923.0	
Notes:	53	2	01612.9	01941.2	

Box 4

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 12
 Project(s): Arctic Contact: Kelly Young

Date: 20 Sept 2010 Time: local 07:00
 day month year Time: UTC 14:00
 Net Event # 34 CTD # 23 Station: CB 22

Latitude: 73 26.88 N Longitude: 138 2.62 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3119
 Net Type: B Tow Type: VNH RBR: 100.7

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	13929	13950	F10H
Net2	150	7133	24890	26488	-80°C
Net3	53	1	01923.0	02274.0	F10H
Notes:	53	2	01941.2	02276.0	

Date: 22 Sept 2010 Time: 1509 local
 day month year Time: 2209 UTC
 Net Event # 35 CTD # 24 Station: CB 23a

Latitude: 72 54 20.3 N Longitude: 136 08.150 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2774
 Net Type: B Tow Type: VNH RBR: 100.0

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	23772	24346	F10H
Net2	150	7133	25488	26062	
Net3	53	1	2274.1	2617.9	↓
Notes:	53	2	2276.5	2600.2	

Date: 22 Sept 2010 Time: 1522 local
 day month year Time: 2222 UTC
 Net Event # 36 CTD # 24 Station: CB 23a

Latitude: 72 54.139 N Longitude: 126 09.572 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2774
 Net Type: B Tow Type: VNH RBR: 100.1

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	24346	24809	F10H
Net2	150	7133	26062	26621	-80
Net3	53	1	2617.9	2948.8	F10H
Notes:	53	2	2600.2	2914.0	

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 13

Project(s): Arctic Contact: Kelly Young

Date: 23 Sept 2010 Time: local 00:38
 day month year Time: UTC 07:38
 Net Event # 37 CTD # 25 Station: CB 50

Latitude: 73 29.22 N Longitude: 134 10.14 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2873
 Net Type: B Tow Type: VNH RBR 2: 101.6

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	24909	25120	Form
Net2	150	7133	26621	27210	↓
Net3	53	1	2948.8	3309.2	↓
Notes:	53	2	2913.9	3238.2	

cod ends full of slush.

Date: 23 Sept 2010 Time: local 00:53
 day month year Time: UTC 07:53
 Net Event # 38 CTD # 25 Station: CB 50

Latitude: 73 29.23 N Longitude: 134 10.14 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2874
 Net Type: B Tow Type: VNH RBR 2: 101.5

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	5294	25120	25700	F10H
Net2	150	7133	27210	27775	-80°C
Net3	53	1	3309.2	3668.5	F10H
Notes:	53	2	3238.2	3550.0	

Date: 23 Sept 2010 Time: 1215 local
 day month year Time: 1915 UTC
 Net Event # 39 CTD # 27 Station: CB-51

Latitude: 73 30.61 N Longitude: 130 56.91 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2513
 Net Type: B Tow Type: VNH RBR 2: 100.6

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	215	333.0	Form
Net2	150	#7133	27775	28841	↓
Net3	53	1	3658.4	3984.8	↓
Notes:	*53	2	3552.0	3550.9	⊗

-TSK 5294 switched to MF 35#4

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 14
Project(s): Arctic Contact:

Date: 23 Sept 2010 Time: 12:32 local
day month year Time: 11:32 UTC
Net Event # 40 CTD # 27 Station: CB-51

Latitude: 73 30.584 N Longitude: 130 57.113 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2513
Net Type: B Tow Type: VNH RBR Z: 100.7

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	333.0	647.5	FDH
Net2	150	7133	2834.1	2892.5	-80
Net3	53	1	3584.8	4300.9	FDH
Notes:	53	2	350.8	3912.5	

end
bot
4

Date: 26 Sept 2010 Time: 2010 local
day month year Time: 0310 UTC
Net Event # 41 CTD # 29 Station: STA-A

Latitude: 72 40.65 N Longitude: 144 38.99 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3478
Net Type: BONGO Tow Type: VNH RBR Z: 125.6

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	650.0	1601.8	FDH
Net2	150	75K 7133	2895.1	3061.9	
Net3	53	1	41309.2	4482.2	
Notes:	53		41087.9	4183.1	

* S4002 switched for #3 * S4002 fixed + used

Date: 26 Sept 2010 Time: 2025 local
day month year Time: 0325 UTC
Net Event # 42 CTD # 29 Station: STA-A

Latitude: 72 40.65 N Longitude: 144 38.99 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3478
Net Type: B Tow Type: VNH RBR Z: 123.3

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	1601.8	2183.8	FDH
Net2	150	7133	3061.9	3165.8	-80
Net3	53	1	2482.2	3459.2	FDH
Notes:	53	2	41863.1	5446.7	

?

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 15
Project(s): Arctic Contact: Kelly Young

Date: 27 Sept 2010 Time: 09:11 local
day month year Time: 16:11 UTC
Net Event # 43 CTD # 30 Station: CB 2a

Latitude: 72 30.92 N Longitude: 149 59.73 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth:
Net Type: B Tow Type: VNH RBR Z: 109.6

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	2184.3	2921.9	form
Net2	150	75K 713	31700	32890	etoh
Net3	53	1	5460.4	6017.8	form

Notes: 53 2 5446.7 6144.5
rough weather, 2nd cast cancelled.

Date: 27 Sept 2010 Time: 14:21 local
day month year Time: 16:25 UTC 21:26
Net Event # 44 CTD # 31 Station: CB 2

Latitude: 72 59.01 N Longitude: 149 59.10 W
deg min.dec deg min.dec

Wire out: 110 Wire angle: 30° Bottom Depth: 2737
Net Type: B Tow Type: VNH RBR Z: 112.3

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	2421.9	3673.0	FORM *
Net2	150	7133	32889	33266	ETOH
Net3	53	1	6017.9	6841.2	FORM

Notes: 53 2 6144.4 6402.3
* Rough weather, 2nd cast cancelled. * Arctic Cod in 236 mm
Cod end → put into
- 30

Date: 27 Sept 2010 Time: 1444 local
day month year Time: 0244 UTC
Net Event # 45 CTD # 32 Station: CB-3

Latitude: 73 59.65 N Longitude: 150 00.34 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3811
Net Type: B Tow Type: VNH RBR Z: 120.5

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	3673.0	4300.9	Form
Net2	150	7133	33267	34249	Form
Net3	53	1	6842.0	7367.9	Form

Notes: 53 2 6462.3 7089.7

Net in
log
from
bridge
log

Plankton Net Tow Log Sheet

Survey #: 2010-07-10-05 Vessel: LSSL Page: 16
Project(s): ARCTIC JOBS Contact:

Date: 27 Sept 2010 Time: 1959 local
day month year Time: 0257 UTC
Net Event # 46 CTD # 32 Station: C83

Latitude: 73 59.79 N Longitude: 150 0.15 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 5 Bottom Depth: 381
Net Type: B Tow Type: VNH RBR 2: 126.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	4300.9	41813.2	EDH
Net2	150	7133	36552	36495	-80
Net3	53	1	7361.9	7853.5	ETOH

Notes: 53 2 7087.7 7880.3

Date: 28 Sept 2010 Time: 04:18 local
day month year Time: 11:18 UTC
Net Event # 47 CTD # 33 Station: CB 4 / BGOS-A

Latitude: 74 58.90 N Longitude: 150 1.05 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3825 m
Net Type: B Tow Type: VNH RBR 2: 100.7

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	04813.1	05133.2	Form.
Net2	150	7133	36395	36975	
Net3	53	1	07853.6	8072.9	

Notes: 53 2 07580.4 07913.1

Date: 28 Sept 2010 Time: 04:50 local
day month year Time: 11:50 UTC
Net Event # 48 CTD # 33 Station: CB 4 / BGOS-A

Latitude: 74 59.13 N Longitude: 150 2.03 W
deg min.dec deg min.dec

Wire out: 500 Wire angle: 0 Bottom Depth: 3825 m
Net Type: B Tow Type: VNH RBR 2: 497.0

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	5133.2	6781.1	ETOH
Net2	150	7133	36975	39159	Form
Net3	53	1	8072.9	9942.2	

Notes: 53 2 07913.1 9766.5

Net
th
log
from
bridge

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 17
Project(s): Arctic Jois Contact: Kelly Young

Date: 28 Sept 2010 Time: 05:18 local
day month year Time: 12:18 UTC
Net Event # 49 CTD # 33 Station: CB4 / BGOS-A

Latitude: 74 59.32 N Longitude: 150 2.35 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: Ø Bottom Depth: 3825
Net Type: B Tow Type: VNH RBR Z: 100.6

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	06781.1	07085.3	EtOH
Net2	150	7133	3915.9	40719	-80°C
Net3	53	1	9942.2	10270.1	EtOH combined
Notes:	53	2	9766.5	10169.3	EtOH

end bot
5

Date: 28 Sept 2010 Time: 2048 local
day month year Time: 0348 UTC
Net Event # 50 CTD # 35 Station: CB-5

Latitude: 75 18.125 N Longitude: 153 17.600 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: Ø Bottom Depth: 3841
Net Type: B Tow Type: VNH RBR Z: 101.3

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	7085.3	7415.2	Form
Net2	150	7133	40719	41309	
Net3	53	1	10270.2	10598.8	
Notes:	53	2	10109.1	10451.2	

Date: 28 Sept 2010 Time: 2052 local
day month year Time: 0352 UTC
Net Event # 51 CTD # 35 Station: CB-5

Latitude: 75 18.106 N Longitude: 153 17.717 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: Ø Bottom Depth: 3841
Net Type: B Tow Type: VNH RBR Z: 101.0

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	7415.2	7742.3	EtOH
Net2	150	7133	41309	41880	-80
Net3	1	1	10598.9	10932.2	EtOH
Notes:	2	2	10451.2	10789.7	

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 18
Project(s): ARCTIC JOIS Contact:

Date: 29 SEPT 2010 Time: 2255 local
day month year Time: 0555 UTC
Net Event # 52 CTD # 36 Station: CB7

Latitude: 75 59.134 N Longitude: 150 00.47 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3828
Net Type: B Tow Type: VNH RBR Z: 98.6

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	7742.4	8068.6	FORM
Net2	150	7133	41889	42509	I
Net3	53	1	10932.2	11247.3	I
Notes:	53	2	10798.8	11112.2	

Date: 29 SEPT 2010 Time: 2309 local
day month year Time: 0609 UTC
Net Event # 53 CTD # 36 Station: CB7

Latitude: 75 59.131 N Longitude: 150 00.35 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3828
Net Type: B Tow Type: VNH RBR Z: 101.5

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	8068.6	8398.6	FORM
Net2	150	7133	42509	43101	-80
Net3	53	1	11249.3	11593.4	FORM
Notes:	53	2	11112.2	11449.3	

ARCTIC
CWO larva
IN
150 net
in -80

Date: 30 Sept 2010 Time: 08:51 local
day month year Time: 15:51 UTC
Net Event # 54 CTD # 37 Station: CB-8

Latitude: 76 59.44 N Longitude: 149 55.63 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3824
Net Type: B Tow Type: VNH RBR 97.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	8398.6	8990.9	form
Net2	150	7133	43100	43830	
Net3	53	1	11573.5	11919.9	
Notes:	53	2	11449.0	11849.1	

HIGH WINDS, ~ 25 knts

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 19
Project(s): Arctic Jois Contact: Kelly Young

Date: 30 Sept 2010 Time: 09:07 local
day month year Time: 16:07 UTC
Net Event # 55 CTD # 37 Station: CB-8

Latitude: 76 59.48 N Longitude: 149 54.85 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 15 Bottom Depth: 3824
Net Type: B Tow Type: VNH RBR 2 100.2

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	SG004	8990.9	9381.7	ETOH
Net2	150	TSK 7133	43830	44500	-80
Net3	53	SG 001	11919.9	11999.9 *	ETOH

Notes: 53 SG 002 11849.1 12207.9

HIGH WINDS ~ 25 knts

SG001 Reset (was stuck)

Date: 30 Sept 2010 Time: 2217 local
day month year Time: 0817 UTC
Net Event # 56 CTD # 39 Station: CB-10

Latitude: 78 16.823 N Longitude: 153 4.174 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: Bottom Depth: 10 2990
Net Type: B Tow Type: VNH RBR 2: 101.2

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	9382.1	9694.7	FORM
Net2	150	7133	44500	44071 *	ETOH
Net3	53	1	0000.0	338.5	FORM

Notes: 53 2 122080 125582 * likely 45071 but did not roll over

Date: 3 Oct 2010 Time: local
day month year Time: UTC
Net Event # 57 CTD # 42 Station: DB 11

Latitude: N Longitude: W
deg min.dec deg min.dec

Wire out: Wire angle: Bottom Depth:
Net Type: B Tow Type: VNH

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4			FORM
Net2	150	7133			-80
Net3	53	1			ETOH

Notes: 53 2 winch fixed, but
Cancelled again - firehose water frozen,
block frozen

- Only did
1 cast - All
of ship,
TSK tore
& nets
froz

No nets
@ CB-70
as winch
broken

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 20
Project(s): Arctic J015 Contact: Kelly Young

Date: 3 Oct 2010 Time: 22:20 local
day month year Time: 06:20 UTC
Net Event # 57 CTD # 44 Station: CB-9

Latitude: 77 58.813 N Longitude: 150 04.592 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3825
Net Type: B Tow Type: VNH RBR: 99.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	9694.7	9694.8	Frozen
Net2	150	7133	45080	46105	FORM
Net3	53	1	338.9	339.9	7 frozen

Notes: 53 2 12555.7 12555.7

New saltwater source → same system as water for toilets, use garden hose to wash down nets.

Date: 3 OCT 2010 Time: 23:07 local
day month year Time: 06:07 UTC
Net Event # 58 CTD # 44 Station: CB-9

Latitude: 77 58.864 N Longitude: 150 04.338 W
deg min.dec deg min.dec

Wire out: 500 Wire angle: 0 Bottom Depth: 3825
Net Type: B Tow Type: VNH RBR: 533.5

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	9694.8	9694.9	ETOH Frozen
Net2	150	7133	46105	47445	FORM
Net3	53	1	339.9	339.0	FORM 7 frozen

Notes: 52 2 12555.7 12999.9

and box 6

Date: 3 Oct 2010 Time: 23:30 local
day month year Time: 06:30 UTC
Net Event # 59 CTD # 44 Station: CB-9

Latitude: 77 58.843 N Longitude: 150 4.008 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3825
Net Type: B Tow Type: VNH RBR: 101.6

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	9694.9	9695	ETOH Freeze
Net2	150	7133	47445	48019	-10
Net3	53	1	339.0	339.0	ETOH freeze

Notes: 53 2 12999.9 13000.0

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 21
Project(s): Arctic Jois Contact: Kelly Young

Date: 4 Oct 2010 Time: 07:39 local
day month year Time: 14:39 UTC
Net Event # 60 CTD # 47 Station: CB-12

Latitude: 77° 41.17 N Longitude: 146° 42.17 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3809
Net Type: B Tow Type: VNH RBR-101.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4			FROZEN FORM.
Net2	150	7133	47020	48200	
Net3	53	1			FROZEN
Notes:	53	2			

Date: 4 Oct 2010 Time: 07:58 local
day month year Time: 14:58 UTC
Net Event # 61 CTD # 47 Station: CB-12

Latitude: 77° 41.16 N Longitude: 146° 42.14 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3809
Net Type: B Tow Type: VNH RBR: —

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4			EtOH FROZEN
Net2	150	7133	48200	48770	-20°C
Net3	53	1			EtOH > FROZEN
Notes:	53	2			

Date: 5 Oct 2010 Time: 08:03 local
day month year Time: 15:03 UTC
Net Event # 62 CTD # 49 Station: CB 16

Latitude: 77° 58.68 N Longitude: 139° 59.72 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3751
Net Type: B Tow Type: VNH RBR- —

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	0	70.7 x	form * FROZE
Net2	150	7133	48770	48785	* froze
Net3	53	1	0	0	* froze
Notes:	53	2	0	0.2	

- All SGOO flowmeters reset

- bubblers used during cast

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 22
Project(s): Arctic JOIS Contact: Kelly Young

Date: 5 Oct 2010 Time: 08:34 local
day month year Time: 15:34 UTC
Net Event # 63 CTD # 49 Station: CB 16

Latitude: 77 58.63 N Longitude: 139 59.08 W
deg min.dec deg min.dec

Wire out: 500 Wire angle: Ø Bottom Depth: 3751
Net Type: B Tow Type: VNH RBR 2 - 513.3

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	70.7	1666.0	E+OH
Net2	150	7133	48785	49990	form * froze?
Net3	53	1	Ø	Ø *	* froze
Notes:	53	2	0.2	1081.9	↓

* stopped @ 20m for bubbler to clear ice on upcast

Date: 5 Oct 2010 Time: 09:00 local
day month year Time: 16:00 UTC
Net Event # 64 CTD # 49 Station: CB 16

Latitude: 77 58.58 N Longitude: 139 58.68 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: Ø Bottom Depth: 3751
Net Type: B Tow Type: VNH RBR 2 - 108.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	1666.0	2008.5	E+OH
Net2	150	7133	49990	50620	- 80
Net3	53	1	Ø	1111.1 *	E+OH * froze
Notes:	53	2	1081.9	1462.4	✓

Date: 5 Oct 2010 Time: 18:57 local
day month year Time: 01:57 UTC
Net Event # 65 CTD # 51 Station: CB-B

Latitude: 77 18.994 N Longitude: 143 10.771 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: Ø Bottom Depth: 3780
Net Type: B Tow Type: VNH RBR - 181.9

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	2008.5	2648.8	FORM
Net2	150	7133	50624	50901	
Net3	53	1	1112.0	116128	
Notes:	53	2	1462.0	1964.1	

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 23
 Project(s): Arctic-2015 Contact: Kelly Young
 Date: 5 OCT 2010 Time: 1912 local
 day month year Time: 0212 UTC
 Net Event # 66 CTD # 51 Station: CB-13

Latitude: 77 18.90 N Longitude: 143 10.576 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: ~~4~~ Bottom Depth: 3780
 Net Type: B Tow Type: VNH RBR2 - 1/2

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	2648.8	2985.7	4	FDH
Net2	150	50901	51452	7123	-80
Net3	53	116128	11923.4	1	FDH

Notes: 53 1764.1 2280.5 2

Date: 6 Oct 2010 Time: 5:39 local
 day month year Time: 12:39 UTC
 Net Event # 67 CTD # 52 Station: CB 15

Latitude: 77 0.05 N Longitude: 140 0.18 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3727
 Net Type: B Tow Type: VNH RBR2 - 1/2

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	2985.7	3402.1	FDH
Net2	150	7133	51451	51451	-80 + contaminated w/ ETOH
Net3	53	1	11923.4	12207.8	FDH

Notes: 53 2 2280.5 2685.2 frozen

- winch counter frozen at start of cast, read -58m at surface (end)

Date: 6 Oct 2010 Time: 6:17 local
 day month year Time: 13:17 UTC
 Net Event # 68 CTD # 52 Station: CB 15

Latitude: 77 0.00 N Longitude: 139 59.50 W
 deg min.dec deg min.dec

Wire out: 500 Wire angle: 0 Bottom Depth: 3727
 Net Type: B Tow Type: VNH RBR2 - 502.3

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	3402.1	5144.6	form
Net2	150	7133	51670	54656	↓ frozen
Net3	53	1	12207.8	12998.9	↓

Notes: 53 2 2685.2 4363.5*

* # roll over out of sequence

Box end #7

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 24
Project(s): Arctic JOIS Contact: Kelly Young

Date: 6 Oct 2010 Time: 6:45 local
day month year Time: 13:45 UTC
Net Event # 69 CTD # 52 Station: CB15

Latitude: 76 59.92 N Longitude: 139 58.20 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3727
Net Type: B Tow Type: VNH RBR 2 - 100.0

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	5144.6	5473.0	form
Net2	150	7133	54656	55250	
Net3	53	1	12998.9	13299.9	
Notes:	23	2	4363.5	4693.5	

stopped briefly @ 10m for bubbles

Date: 6 Oct 2010 Time: 7:37 local
day month year Time: 14:37 UTC
Net Event # 70 CTD # 52 Station: CB-15

Latitude: 76 59.86 N Longitude: 139 56.74 W
deg min.dec deg min.dec

Wire out: 1000 Wire angle: 15 Bottom Depth: 3727
Net Type: B Tow Type: VNH RBR - n/a

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	5473.0	8954.7	form
Net2	150	7133	55250	59600	
Net3	53	1	13299.9	13999.9	
Notes:	53	2	4693.5	8218.2	

RBR removed. For CB-15, all samples processed during next cast.

Date: 7 Oct 2010 Time: 00:46 local
day month year Time: 7:46 UTC
Net Event # 71 CTD # 55 Station: CB17

Latitude: 76 1.14 N Longitude: 139 56.72 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3695
Net Type: B Tow Type: VNH RBR 2 - 107.7

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	8955.2	9331.8	form
Net2	150	7133	59625	60252	
Net3	53	1	10.9	370.1	
Notes:	53	2	8218.3	8556.6	

* Thanks Neil Jollymore!

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 25

Project(s): Arctic 2015 Contact: Kelly Young

Date: 7 Oct 2010 Time: 1:03 local
 day month year Time: 8:03 UTC
 Net Event # 72 CTD # 55 Station: CB 17

Latitude: 76 1.06 N Longitude: 139 56.40 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3695
 Net Type: B Tow Type: VNH RBR 2 - 104.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	9331.8	9703.6	E104
Net2	150	7133	60252	66845	-80
Net3	53	1	370.1	489.1	E104

Notes: 53 2 8556.6 18925.5
 ↳ most likely rolled over

Date: 7 Oct 2010 Time: 1708 local
 day month year Time: 0008 UTC
 Net Event # 73 CTD # 56/57 Station: PP-7

Latitude: N Longitude: W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 6 Bottom Depth: 3568
 Net Type: B Tow Type: VNH RBR 2 - N/A

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	9710.5	9710.9	10
Net2	150	7133	60845	61211	form
Net3	53	1	503.7	508.1	

Notes: 53 2 1898.5 18928.5

Date: 7 Oct 2010 Time: 1727 local
 day month year Time: 0027 UTC
 Net Event # 74 CTD # 56/57 Station: PP-7

Latitude: N Longitude: W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 4 Bottom Depth: 3568
 Net Type: B Tow Type: VNH RBR 2 - N/A (28m?)

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	9710.9	9710.9	E104
Net2	150	7133	61211	62204	-80
Net3	53	1	503.9	504.1	E104

Notes: 53 2 18928.1 18978.5

#1,2,4 frozen

#1,2,4 frozen

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 26
Project(s): 2015 Contact: Kelly Young

Date: 07 OCT 2010 Time: 1909 local
day month year Time: 0209 UTC
Net Event # 75 CTD # 56 Station: AP7

Latitude: N Longitude: W
deg min.dec deg min.dec

Wire out: 100 Wire angle: ~~0~~ Bottom Depth: 3568
Net Type: B Tow Type: VNH RBR - N/A (24m?)

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1					
Net2					
Net3					

Notes:

Date: 8 Oct 2010 Time: 4:33 local
day month year Time: 11:33 UTC
Net Event # 76 CTD # 59 Station: PPG

Latitude: 76 16.04 N Longitude: 132 31.50 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: ~~0~~ Bottom Depth: 3067
Net Type: B Tow Type: VNH RBR - N/A (~19m?)

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	9711.6	10047.6	form
Net2	150	7133	62811	62825*	* frozen
Net3	53	1	510.8	825.4	

Notes: 53 2 18932.2 19281.1

Date: 8 Oct 2010 Time: 4:49 local
day month year Time: 11:49 UTC
Net Event # 77 CTD # 59 Station: PPG

Latitude: 76 16.10 N Longitude: 132 31.51 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: ~~0~~ Bottom Depth: 3067
Net Type: B Tow Type: VNH RBR - N/A (~19m?)

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	10047.6	10549.0	E+OH
Net2	* 150	7133	62825	62825	froze - 80
Net3	53	1	825.4	1320.6	E+OH

Notes: 53 2 19281.1 19812.7

* 150µm - has a lot of dirty ice "stuff" in it

* winch counter frozen, read - 67m at end of cast

Limacina
cast for
Mickyo

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 27
Project(s): Arctic 2010 Contact: Kelly Young

Date: 08 OCT 2010 Time: 17:53 local
day month year Time: 00:53 UTC
Net Event # 78 CTD # 60 Station: CBDW

Latitude: 75 51.34 N Longitude: 134 41.4 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2164
Net Type: B Tow Type: VNH RBR N/A (N 36.7m?)

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	10849.2	10959.8	FORM frozen TSC
Net2	150	7133	62825	62825	
Net3	53	1	1520.7	1701.5	

Notes: 63 2 19813.2 20251.6

* counter skipping, wire out approx.

Date: 08 OCT 2010 Time: 18:10 local
day month year Time: 12:10 UTC
Net Event # 79 CTD # 60 Station: CBDW

Latitude: 75 51.35 N Longitude: 134 41.26 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2164
Net Type: B Tow Type: VNH RBR 2 - N/A (31.3m?)

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	10959.8	11248.9	FORM frozen TSC
Net2	150	7133	62825	62825	
Net3	53	1	1701.5	2114.9	

Notes: 63 2 20251.6 20638.9

Date: 9 OCT 2010 Time: 5:57 local
day month year Time: 12:57 UTC
Net Event # 80 CTD # 61 Station: CB 18

Latitude: 75 0.26 N Longitude: 140 0.87 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: Bottom Depth: 3629
Net Type: B Tow Type: VNH RBR: N/A (48.0?)

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	11300.2	11763.2	form
Net2	150	7133	62825	62825	
Net3	53	1	2115.0	2579.9	

Notes: 63 2 20638.7 21157.8

which counter not working again, read -50.7m at end of tow

END OF
208

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 28

Project(s): Arctic 2015 Contact: Kelly Young

Date: 9 Oct 2010 Time: 6:14 local
 day month year Time: 13:14 UTC
 Net Event # 81 CTD # 61 Station: CB18

Latitude: 75 0.24 N Longitude: 140 1.06 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3629
 Net Type: B Tow Type: VNH RBR - N/A (~39.3m?)

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	11763.2	12154.0	EtOH
Net2	150	7133	1000	81 #80	-80 + mesh sing on label wrong (put 53)
Net3	53	1	2579.9	2958.3	EtOH

Notes: 53 2 21157.8 21235.7
 winch read -22.3 at surface

Date: 10 Oct 2010 Time: 3:27 local
 day month year Time: 10:27 UTC
 Net Event # 82 CTD # 62 Station: CB-19

Latitude: 74 17.30 N Longitude: 143 14.93 W
 deg min.dec deg min.dec

Wire out: (85+31) Wire angle: 20 Bottom Depth: 3697
 Net Type: B Tow Type: VNH RBR - N/A

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	12156.2	12549.4	form
Net2	150	TSK 7133	64109	65085	
Net3	53	1	2964.2	3229.3	

Notes: 53 2 21240.5 21694.8

- winch counter not working, stopped at 85m, read -31 at end. About 100m tow.

Date: 10 Oct 2010 Time: 3:48 local
 day month year Time: 10:48 UTC
 Net Event # 83 CTD # 62 Station: CB-19

Latitude: 74 17.19 N Longitude: 143 14.90 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 20 Bottom Depth: 3697
 Net Type: B Tow Type: VNH RBR - N/A

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	12549.4	12549.7	EtOH flow frozen
Net2	150	7133	65085	65707	-80
Net3	53	1	3229.3	3526.3	EtOH

Notes: 53 2 21694.8 21968.2

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 29
Project(s): Arctic 2015 Contact: Kelly Young

Date: 10 04 2010 Time: 1308 local
day month year Time: 2028 UTC
Net Event # 84 CTD # 163 Station: 1B-6

Latitude: 74 42.52 N Longitude: 146 37.213 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2778
Net Type: B Tow Type: VNH RBR - N/A? (52.9)

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	12551.0	12846.4	
Net2	150	7133	66278	66275	FOR 4
Net3	53	1	35263	38029	
Notes:	53	2	2148.2	22285.7	

Date: 16 05 2010 Time: 1520 local
day month year Time: 2020 UTC
Net Event # 85 CTD # 163 Station: 1B-6

Latitude: 74 42.589 N Longitude: 146 37.320 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3778
Net Type: B Tow Type: VNH RBR - N/A? (85.5m)

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	12846.4	13164.9	EDH
Net2	150	7133	66275	66361	-B0
Net3	53	1	38029	4049.9	EDH
Notes:	53	2	22285.7	22623.6	

Date: 11 04 2010 Time: 02:39 local
day month year Time: 09:39 UTC
Net Event # 86 CTD # 164-166 Station: 1B-21

Latitude: 74 1.22 N Longitude: 139 59.8 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3524
Net Type: B Tow Type: VNH RBR - N/A? (73.3)

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	91.6	402.0	form
Net2	150	7133	66363	66385	
Net3	53	1	0	374.9	
Notes:	53	2	0	373.7	

-reset all 59 flowmeters

-22m at surface

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 30
 Project(s): Arctic 2015 Contact: Kelly Young
 Date: 11 OCT 2010 Time: 03:07 local
 day month year Time: 10:07 UTC
 Net Event # 87 CTD # 64-66 Station: CB-21

Latitude: 74° 1.14 N Longitude: 139° 59.97 W
 deg min.dec deg min.dec

Wire out: 500 Wire angle: 0 Bottom Depth: 3524
 Net Type: B Tow Type: VNH RBR-673.2

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	402.0	2831.4	EtOH Euphausiids
Net2	150	7133	66345	66880	form large Caridea
Net3	53	1	374.9	2493.7	↓
Notes:	53	2	373.7	2533.4	

* - 159m at surface winch reading

Date: 11 OCT 2010 Time: 8:36 local
 day month year Time: 10:36 UTC
 Net Event # 88 CTD # 64-66 Station: (B21)

Latitude: 74° 0.99 N Longitude: 140° 0.19 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3524
 Net Type: B Tow Type: VNH RBR-N/A

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	2831.4	3247.3	EtOH
Net2	150	7133	66880	67881	-80
Net3	53	1	2493.7	2861.9	EtOH
Notes:	53	2	2533.4	2993.8	

RBR removed for cast
 * winch 17m at bottom, -118m at surface

Date: 12 Oct 2010 Time: 2:35 local
 day month year Time: 9:35 UTC
 Net Event # 89 CTD # 67 Station: CB 40

Latitude: 74 30.02 N Longitude: 135 23.98 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3266
 Net Type: B Tow Type: VNH RBR-100.7

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	3247.3	3247.3*	form
Net2	150	7133	66881	66880	3 large Limacina
Net3	53	1	2861.9	3168.9	Euphausiid in sample
Notes:	53	2	2993.9	3358.1	

* flow frozen

Plankton Net Tow Log Sheet

Survey #: 2010-07 Vessel: LSSL Page: 31
Project(s): Arctic-J015 Contact: Kelly Young

Date: 12 Oct 2010 Time: 2:50 local
day month year Time: 9:50 UTC
Net Event # 90 CTD # 67 Station: CB-40

Latitude: 74 29.91 N Longitude: 135 24.02 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 3266
Net Type: B Tow Type: VNH KBR - 11.8 m

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	3247.3	3247.3	ETOH
Net2	150	7133	66880	66887	-80
Net3	53	1	3168.9	3476.2	ETOH
Notes:	53	2	3358.1	3731.0	

Date: 12 Oct 2010 Time: 16:17 local
day month year Time: 23:17 UTC
Net Event # 91 CTD # 68 Station: CB-50

Latitude: 73 30.715 N Longitude: 134 11.562 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 6 Bottom Depth: 2882
Net Type: B Tow Type: VNH KBR - 100.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	3254.3	3254.3	ETOH
Net2	150	7133	66741.5	67529	-80
Net3	53	1	3476.5	3476.5	ETOH
Notes:	53	2	3731	4085.5	

Date: 12 Oct 2010 Time: 16:51 local
day month year Time: 23:51 UTC
Net Event # 92 CTD # 68 Station: CB-50

Latitude: 73 31.127 N Longitude: 134 11.561 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 9 Bottom Depth: 2882
Net Type: B Tow Type: VNH KBR - 100.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	3254.3	3254.4	ETOH
Net2	150	7133	67529	68122	-80
Net3	53	1	3476.5	3476.5	ETOH
Notes:	53	2	4085.5	4424.6	

Plankton Net Tow Log Sheet

Survey #: 2010 07 Vessel: LSSL Page: 32
Project(s): 1015 Contact: Kelly Young

Date: 13 OCT 2010 Time: 1:11 local
day month year Time: 8:11 UTC
Net Event # 93 CTD # 69 Station: CB-S1

Latitude: 73 30.41 N Longitude: 130 56.71 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2510
Net Type: B Tow Type: VNH KBR - 102.0 m

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	froze		form
Net2	150	7138			
Net3	53	1	froze		
Notes:	53				

* TSK frozen + removed before cast

Date: 13 OCT 2010 Time: 1:25 local
day month year Time: 8:25 UTC
Net Event # 94 CTD # 69 Station: CB-S1

Latitude: 73 30.33 N Longitude: 130 56.79 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 2510
Net Type: B Tow Type: VNH KBR - froze

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	froze		EAOH
Net2	150	7138			-80
Net3	53	1	froze		EAOH
Notes:	53	2			

Date: 13 OCT 2010 Time: 7:39 local
day month year Time: 14:39 UTC
Net Event # 95 CTD # 70 Station: CB-S2

Latitude: 73 29.53 N Longitude: 129 29.61 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 1000
Net Type: B Tow Type: VNH KBR 2 - 116.7

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	3260.5	3604.5	form
Net2	150				
Net3	53	1	3485.9	3855.0	
Notes:	53	2	4428.8	4770.2	

* TSK gears are jamming, removed from frame on net 93
↳ winch - 19m at surface

Survey #: 2010-07 Vessel: LSSL Page: 33
 Project(s): J015 Contact: Kelly Young

Date: 13 Oct 2010 Time: 7:54 local
 day month year Time: 14:54 UTC
 Net Event # 96 CTD # 70 Station: CB-52

Latitude: 73° 29.44 N Longitude: 129° 29.61 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: 0 Bottom Depth: 1000
 Net Type: B Tow Type: VNH RBR 2 - 104.9

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	3604.5	3889.7	ETOH
Net2	150	—	—	—	-80
Net3	53	1	3855.0	4199.9	ETOH
Notes:	53	2	4770.2	4999.9	

- wind counter not working; stopped 85m, read ~40 at surface.

Date: 13 Oct 2010 Time: 14:51 local
 day month year Time: 21:51 UTC
 Net Event # 97 CTD # 71 Station: CB-53

Latitude: 73° 22.65 N Longitude: 128° 33.26 W
 deg min.dec deg min.dec

Wire out: 100? Wire angle: ? Bottom Depth: 401
 Net Type: B Tow Type: VNH RBR - 133.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	3889.7	3889.0	FORM
Net2	150	—	—	—	
Net3	53	1	14199.8	14494.3	
Notes:	53	2	4999.9	5241.4	

Date: 13 Oct 2010 Time: 15:03 local
 day month year Time: 22:03 UTC
 Net Event # 98 CTD # 71 Station: CB-53

Latitude: 73° 22.65 N Longitude: 128° 33.31 W
 deg min.dec deg min.dec

Wire out: 100? Wire angle: ? Bottom Depth: 401
 Net Type: B Tow Type: VNH RBR - froze ~ 96.8

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	236	4	3889.0	3889.0	ETOH
Net2	150	—	—	—	-80
Net3	53	1	14494.3	14799.3	ETOH
Notes:	53	2	5241.4	5551.6	

Plankton Net Tow Log Sheet

Survey #: 2010-07

Vessel: LSSL

Page: 34

Project(s): J015

Contact:

Date: 13 OCT 2010 Time: 1823 local
 day month year Time: 0123 UTC
 Net Event # 99 CTD # 72 Station: CB-59

Latitude: 73 19.17 N Longitude: 127 47.47 W
 deg min.dec deg min.dec

Wire out: 100 Wire angle: Bottom Depth: 204
 Net Type: B Tow Type: VNH RBR2-106.4

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	256	4	3890.0	4242.0	FORM
Net2	150	1			
Net3	S3	1	4600.5	5187.9	

Notes: S3 2 4551.0 5909.7

Date: 13 OCT 2010 Time: 1837 local
 day month year Time: 0137 UTC
 Net Event # 100 CTD # 72 Station: CB-59

Latitude: 73 19.05 N Longitude: 127 47.47 W
 deg min.dec deg min.dec

Wire out: Wire angle: Bottom Depth: 204
 Net Type: Tow Type: RBR2-105.5

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1	256	4	4242.0	4585.0	EDH
Net2	150	1			-80
Net3	S3	1	5187.9	5596.4	EDH

Notes: S3 2 5909.7 6273.6

Date: Time: local
 day month year Time: UTC
 Net Event # CTD # Station:

Latitude: N Longitude: W
 deg min.dec deg min.dec

Wire out: Wire angle: Bottom Depth:
 Net Type: Tow Type:

	Mesh	Flow serial#	Flow start	Flow end	Preservative
Net1					
Net2					
Net3					

Notes:

"*Write in the Rain*"
ALL-WEATHER WRITING PAPER

Name _____

Address _____

Phone _____

Project _____

Clear Vinyl Protective Slipcovers (Item No. 30) are available for this style of notebook. Helps protect your notebook from wear & tear. Contact your dealer or the J. L. Darling Corporation.

PAGE	REFERENCE	DATE
	JOIS N41-39	39-
	036 μ TSK 5294 / MF 315 #4	
	150 μ TSK F133	
	53 μ MF 315 #1	
	53 μ MF 315 #2	

#16 Sep 2010	AG-5	bot depth: 647
TIME: 19:20.4 (01/20) tow depth: 100m		
On upward path, wire at 45° angle off, 15' at bottom		
Lat: 70°33.59	Lon: 122°54.78	(bot)
#12 Time: 19:36.23	tow depth: 100m	bot 646
- juvenile Arctic cod frozen - 80		
Lat: 70°33.62	Lon: 122°54.50	
- a couple big 1. libellula		
17 Sept 2010	CABOS	Bot: 1100
#1 TIME: 7:39	DEPTH: 100	
LAT: 71°46.90	LONG: 131°51.94	
#2 TIME: 7:55	TOW DEPTH: 100	
LAT: 71°46.879	LONG: 131°51.935 (EN)	
* 1SK 5294 not spinning		
17 Sep 2010	CB-31b	Bot: 2052
#1 TIME: 12:53	DEPTH: 100m	
LAT: 72°21.190	LONG: 133°59.851	
#2 TIME: 13:03	DEPTH: 100m	
LAT: 72°21.198	LONG: 133°59.861	

Scale: 1 square=

	236	5294	150	7133	53	#2	53	#1
	START	FIN	START	FIN	START	FIN	START	FIN
AG-5	09818	10929	03649	04335	74747.5	77190.1	40375.7	40799.8
" #2	10329	10854	04335	04966	77190.1	775575	40799.8	4116.8
CABOS	9890	9991	04952	05569	775575	79917.8	41116.9	41556.3
#2		7925		06151		792749		41789.2
CB31b	00531	01104	06152	06754	223020	22658.4	41490.2	41941.0
		01481*		07391		23051.4		42227.1

Scale: 1 square=

17-SEP-2010 CB-60 Bot Depth 1036

#1 TIME: 19:53 TWO DEPTH: 100m
LAT: 71°18.749 LONG: 131°19.814

#2 TIME: 20:13 DEPTH: 100m
LAT: 71°18.738 LONG: 131°19.876

18-SEP-2010 CB-61 Bot Depth 701

#1 TIME: 18:50 ~~Two~~ DEPTH: 100m
LAT: 71°11.026 LONG: 131°12.137
KID stayed down 15m for 9 min

#2 TIME: 19:04 ~~Bot~~ DEPTH: 100m
LAT: 71°11.783 LONG: 131°12.226

19-SEP-2010 CB-65 Bot = 77m
01:48 65m
LAT 70°51.59 LONG 133°42.14

19-SEP-2010 MK-3 Bot Depth 1305

#1 TIME: 22:27 TWO DEPTH: 100
LAT: 70°31.168 LONG: 140°00.473

#2 TIME: 22:47 TWO DEPTH: 100
LAT: 70°34.104 LONG: 140°00.566

Scale: 1 square =

236	S294	ISO	7153	S3	#1	S3	#2
START	FIN	START	FIN	START	FIN	START	FIN
CB-60 01481	01671	07389	07991	42271.1	42620.2	23051.4	23395.1
#2	02322	08019	08619		43028.4		23416.4
CB-61 02324		08621	09299	43028.4		24464	
#2	02891		09758		43530.2		23753.2
	03400				43620.0		24046.4
CB-65 03400	03752	9762	10141	43619.9	43811.3	24046.4	24271.5
							244
MK-3	03755	10168		43811.3		24271.5	24756.3
	04548		11039		44229.2		25123.9
	05129		11653		44571.1		
K2 05129	05419	11655		44541.1	44571.1	25023.9	25041.7
	05755		12285		44853.8		25216.9
	*05885		12876		45212.9		25698.2

32

Scale: 1 square =

Scale: 1 square =

#1 01:33	140 0.06	bottom depth 150m
70 23.92	140 0.06	
- 236 cod end line to weight breaking		
fsw but not didn't tangle		
#2 01:55	100m	
70 23.87	140 0.25	
20 Sep 2010 MK1	Bot depth: 225	
#1 04:00	depth 100m	
70 13.52	140 0.14	
#2 04:14	bot - 225m	depth: 100m
70 13.51	140 0.06	
20 Sep 2010 CB28 aa	bottom 5m	
#1 05:51	depth: 48m	
70 0.20	140 0.05	
#2 06:04	bottom: 59	
70 0.16	140 1.28	
20 Sep 2010	depth: 49m	59
09:18	depth	

	236	529	150	7133	53	#1	53	#2
MK1	Start 05885	end 06158	43875	44489	45216.9	45529.7	25698.1	26078.8
		06158		15100		45865.5		26436.9
CB28aa	06955	07260	15100	15400	45865.5	45963.6	26436.9	26629.4
		07405		15675		46104.9		26807.6
MK3a	07405	07510	15675	16310	46104.9	46267.6	26807.6	27171.2
		08100		16909		46494.9		27542.2
MK4	08101	08709	16909	17512	46495.0	46798.4	27842.1	27908.2
MK6	08709	09052	17539	18138	46802.1	47117.0	27933	28283.7
		09712		18773		47328.6		28649.5
CB28b	09715	10471	18772	19530	47328.6	47609.8	28649.5	47116.6
		11232		20361		47885		49576.1

Scale: 1 square =

20 Sept 2010

bottom = 1305

#1 09:45

depth: 100m

→ 70 39.84 140 0.3

→ 70 39.80 140 0.5

#2 09:56 lat 2-1315 depth: 100m

20-SEP-2010

MK-4

Bottom: 1437

#1 TIME: 14:03

TOW DEPTH: 100 m

LAT: 70 48.539 LONG: 140 01.415

#2 TIME: 14

TOW DEPTH:

LAT:

LONG:

CANCELED 2ND TOW DUE
TO SWAPPED CODED LINES

20-SEP-2010

MK-6

Bottom: 2426

#1 TIME: 18:35

TOW DEPTH:

LAT: 71 34.877

LONG: 140 00.334

#2 TIME: 18:45

TOW DEPTH:

LAT: 71 34.877

LONG: 140 00.334

20-SEP-2010

CB-28b

Bottom: 2100

#1 TIME:

TOW DEPTH:

LAT:

LONG:

#2 TIME:

TOW DEPTH:

LAT:

LONG:

Scale: 1 square =

21 Sept 2010

bot: 2075

#1 01:20

depth: 100m

- changed dd 53m net for new, new
cod and lines before tow

#2 01:39

depth: 100m

71 0.56 140 0.06 (end tow)

21 Sept 2010

CB 29

bot: 2690m

#1 09:57

depth: 100m

72 0.17 140 2.35

#2 10:19

depth: 100m

71 59.91 140 2.97 2693

21 SEPT 2010

MK-1

BOT 2498

#1 TIME: 16:37

TOW DEPTH: 100m

LAT: 72 31.542

LONG: 140 01.579

#2 TIME: 16:52

TOW DEPTH:

LAT: 72 31.542

LONG: 140 00.633

21 Sept 2010

CB 27

BOT: 3195

#1 TIME: 23:29

TOW DEPTH: 100

LAT: 72 59.688

LONG: 140 1.340

#2 TIME: 23:42

DEPTH: 100

LAT: 72 59.633

LONG: 140 1.528

Scale: 1 square =

Scale: 1 square =

22 Sept 2010		08:22	bot depth: 3118
#1	06:42		depth: 100m
	73 26.88	138 2.52	
#2	0700	0-3119	depth: 100m
	73 26.88	138 2.62	
22 Sept 2010		08:23a	bot depth: 2714
#1	Time: 15:09	Time: 15:09	bot depth: 100m
	72 54.203	136 0 5.150	
	Time: 15:22	Time: 15:22	bot depth: 100m
	LAT 72 54.137	LONG 126 0 8.342	
23 Sept 2010		08:50	bot - 2873
	00:38		depth: 100m
	73 29.22	134 10.14	
	73 29.23	134 10.14	
#2	00:53		depth: 100m
23 Sept 2010		08:51	bot: 2513
	Time: 12:15		100m
	73 30.61	130 56.91	
		100m	
	Time: 12:32		
	73 30.84	130 57.113	

	236m TSK 5294	150m TSK 7133	53m # 1	53m # 2
CB29	11228 11786 12400	20371 20957 21565	67896.7 44478.0 44872.3	49576.2 49929.7 50280.7
MK7	12403 12681 12869	21565 22122 22729	000000 02911.7 0637.9	0000002 00317.2 00664.3
CB27	12867 13871 13881	22729 23709 24442	006340 01118.0 01598.9	006443 01176.9 01612.9
CB22	13882 13921 13950	24442 24895 25488	01598.8 0923.0 02271.0	01612.9 09411.2 02275.0
CB23	25172 24346 24909	25488 26062 26621	2274.5 02617.9 02948.8	22765 02600.2 02914.0
CB50	24909 25120 25700	26621 27210 27775 →	2948.8 3369.2 3658.5	2913.9 3238.2 3550.0

Scale: 1 square =

16 Sep 2010

STA A

3478

#1 TIME: 20:10

Transducer: 100m

#2 TIME: 20:25

Transducer: 100m

- no location in log, use

72 40.65 144 38.99 Bot 3450

72 40.64 144 38.95

CB-2a 27 Sep 2010

Bottom

#1 09:11 @ bottom depth: 100m

72 30.92 149 59.73

#2 cancelled.

CB-8

27 Sep 2010

Bot depth: 400m

#1 TIME: 14:26

Depth: 100m

#2 TIME: 14:26
Down to 100m on speed, hold to separate for 30'
Depth: 100m

Cancelled due to rough water

72 59.06 149 59.75

CB-3

27 Sep 2010

Bot depth: 381m

#1 TIME: 19:49

#1 73 59.65 150 00.34

#2 73 59.79 150 00.15

#3 TIME: 19:59

Scale: 1 square =

	236	150	7133	53	1	53	2
CB51	00001.5	337.0	27775	28341	3658.4	3984.2	3550.8
	647.5		28925		4300.9		3842.1
#1	650.0	4601.9	28954	2133	4309.2	4982.2	4863.1
STA-A		2183.8		3069		5455.2	5446.7
		2183.8		31658		5455.2	5446.7
	2184.3	2921.9	31700	32290	5460.4	6017.8	6144.5
CB3	2921.7	3673.0	32859	33266	6017.9	6841.2	6144.4
	2921.7	4300.9	33867	34249	6842.0	7367.9	7089.7
		4813.2	35552	36495		7853.5	7580.3

28 Sept 2010

(CB-1)

#1	04:18 @ bottom	depth: 100m
	lat: 74° 56.90 long: 150° 1.05	
	- slowed during upast @ 50m to wait for bubble	
#2	04:50 @ bottom	depth: 500m
	lat: 74° 59.13 long: 150° 2.03	
#3	05:18 @ bottom	depth: 100m
	lat: 74° 59.32 long: 150 02.35	
#4	28 Sept 2010	(CB5) 801 depth: 3841
	TIME: 20:48	100m
	75 18.125	153 17.600
#5	TIME: 20:52	100m
	15 18.106	153 17.717
#6	29 Sept 2010	(CB7) lat: 3828
	TIME: 22:55	100m # 52
	75 59.134	150 0.47
#7	TIME: 23:07	100m
	75 59.131	150 0.35 # 53

Scale: 1 square =

	236	#4	150	7133	53	1	53	2
CB4	04813.1	5133.2 6781.1	36395	36975 39159 40150	07853.6	8072.9 9942.2 10270.1	07580.4	07913.1 9766.5 10059.3
CB5	07085.3	67685.3 74145.2 7742.3	40719	41309 41880	10720.2	10598.8 10932.2	10109.1	10059.2 10789.7
CB7	7742.4	8069.6 9398.6	41889	42509 43101	10932.2	11749.3 11573.4	10798.8	11112.2 11449.3
CB-2								

Scale: 1 square =

30 Sept. 2010

CB-8 bottom: 3824

#1 @ bottom depth: 100 m
08:51 76 59.44 149 55.63

#2 @ bottom depth: 100 m
09:01 76 59.48 149 54.85 15° N
HIGH WINDS

30 Sept 2010 CB-10 bottom: 2990

#1 Time: 22:17 100m
78 16.823 153 4.174

#2 TIME 100m
+ only did one cast - bad ends
Full of slush, TSK force + west
force (150 in EDD)

CB 9 3 Oct 2010 bottom: 3825

#1 Time: 2:10 100m
77 58.813 150 04.572

#2 Time: 23:09 500m
77 58.864 150 04.338

#3 Time: 23:30 100m
77 58.843 150 04.008

Scale: 1 square =

	236	4	150	7133	53	1	53	2
CB8	8398.6	8990.9 9381.7	43100	113830 44500	115735	11919.9 11999.9	11449.0	11849.1 12207.9
CB10	9382.1	9694.7	44800	4407 84000	00000.0	338.9	122080	125558.1
CB9	09694.7	09694.8 9694.9 9694.9 9694.9	45080	46105 47445 48019	00338.9 339.0	0339.9 339.0	125555.7	12555.7 12999 13000.0
	2008.5		50624		11120		12946	

Scale: 1 square =

Scale: 1 square =

CB12		4 Oct 2010	Bottom: 3309
#1	07:39	Depth: 165 m	
	77° 41.17	146 42.19	
#2	07:58	Depth: 165 m	
	77° 41.16	146 42.14	
CB16		5 Oct 2010	Bottom: 3751
#1	08:03	100 m	Net 62
	77° 58.68	139 59.72	
#2	08:34	500 m	Net 63
	77° 58.63	139 59.08	
#3	09:00	100 m	Net 64
X12 - stopped @ 20m for bubbles to clear in			
up cast.			
	77° 58.58	139 58.68	
CB13		5 Oct 2010	Bottom: 5785
#1	18:57	100 m	
	77° 18.994	143 10.71	
#2	19:12	100 m	
	77° 18.90	143 10.575	

Scale: 1 square =

	236	214	150	75K7133	53	#1	53	#2
CB12	9695.5	9695.5	47020	48200	339.9	340.0	13003.0	13003.0
		9696.8		48770		11340.0		13003.0
CB16	0000.0	70.7	48770	48785	0000.0	0	0000.0	0.2
		1666.0		49990		0		1021.9
		2008.5		50620		11111.1		1462.4
CB13	2008.5	2648.8	50624	50711	11112.0	11612.8	1462.0	1964.1
		2985.7	50901	51452		11923.4		2280.5

CB 15

6 Oct 2010

Bottom: 3727

#1 100m

5:39

which center not working for 1450m (-55m)

77' 0.05 140 0.18

#2 500m

6:17

77' 0.00 139 59.50

#3 100m

6:45

stopped briefly @ 10m for bubbles

76' 59.92 139' 58.20

#4 1000 m

7:37 152

76' 59.86 139' 56.74

-all samples processed during next cast

CB-17

7 Oct 2010

bottom: 3695

#1 100.46

7:04

depth: 100

76' 1.14 139 56.72

#2 01:03

76' 1.06 139 56.40

depth: 100

PP-7

7 Oct 2010 bottom: 3518

#1 119.08

100m

76' 43.00

155 1101

#2 17:27

100m

76' 42.98

135 1191

Scale: 1 square =

53m #2

53m #1

150m

TSK 7133

236m #4

CB 15	2985.7	03402.1	51451	51451	11923.4	12079	-02280.5	2685.2
	5473.0	5144.6	51670	51656		12998.9		4363.5
	8955.2	8954.7	55250	59600		13299.9	4693.5	8218.2
CB 17		9331.8	89620	60252	10.9	13999.9		
		9703.6		60845		370.1	2218.3	08556.6
						489.1		18925.5
PP-7	9710.5	9710.9	60645	61311	503.7			18928.5
		9710.7		67220		503.7	18928.5	18928.5
						504.1		18929.5

Scale: 1 square =

PP6 8 Oct 2010 bottom 3067

#1 100m 4:13

76 16.04 132 31.50

#2 100m 4:49

-67m @ surface wind counter frozen
76 16.10 132 31.51

CB DW 1753 8 Oct 2010 bottom alt

TIME 1753

100m

Under was slipping with the norm deeper than 100 (110-)

TIME 1810

100m

1-75 51.34 134 41.4 2-75 51.35 134 41.2

CB 18 9 Oct 2010 Bot - 3629

#1 100m 05:57 -50.7m at surface

75 0.26 140 0.87

#2 100m 06:14 -22.3 m at surface

75 0.24 140 01.06

CB 19 10 Oct 2010 bot 3697

#1 03:27 100m

74 17.30 143 14.93 < 20°

#2 03:48 100m

74 17.19 143 14.90 < 20°

Scale: 1 square =

5mm #2

53mm #1

150mm #1

236mm #4

PP6	9711.6	10047.6 10549.0	62911	62825 62825	510.8	825.4 1320.6	18932.2	19281.1 19812.7
CB DW	10549.2	10959.8 11298.9	62825	62825 62825	1320.7	1701.5 02114.9	19813.2	20251.4 20638.9
CB 18	11300.2	11763.2 12154.0			2115.0	02579.9 2958.3	20638.7	21151.8 21235.7
CB 18	12156.2	12549.4 12549.7	64109	65085 65707	2964.2	3229.3 3526.3	21240.5	21694.8 21968.2

Scale: 1 square =

Oct 10 / 2010 CB-6 378m

10:31 AM, Tue 13:03

74 42.520 146 37213

42 THE 13.20

7422.587 14637.320

06/11/2010

(B2) 3524

1. SiO_2 100m - 20m of surface

74	1.22	139	59.8
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2 3.07 50m -159 at surface

72 7.11 139 59 63 176

$$3:36 \quad 100m \quad -12 + 17^3$$

$\frac{0}{0} \cdot \frac{0}{0}$

12 Oct 2010 Bot: 3266

#1 100m 2:33

74 30.02 135 23.98

#2 100m. 2150

74	29.91	135	24.02
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Scale: 1 square=

Scale: 1 square=

031 21 92 04

12
95

Q. 6

Scale: 1 square=

15 Oct 4010

CBSY

#1 Time: PDI 18.23

100%

73 19.17 127 47.47

✓ Time: 18.3

73.19.05

Scale: 1 square =

Scale: 1 square =

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