

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2012 - 06

DATE:

From: 19 SEP 2012 to: 24 SEP 2012

VESSEL:

VECTOR

PROJECT(S):

STRAIT OF GEORGIA / JUAN DE FUCA
WATER PROPERTIES SURVEY

Water Properties Group
Fisheries and Oceans Canada
Institute of Ocean Sciences
Ocean Sciences Division
Sidney, BC, Canada

WaterProperties.ca

Rosette Setup:

Number of bottles: 24
Manufacturer: 105
Volume of bottles (litres): 10L

Winches:

1. Make: SWANN Model: 329 Serial #: 1483 Used for: Entire mission
2. Make: _____ Model: _____ Serial #: _____ Used for: _____
3. Make: _____ Model: _____ Serial #: _____ Used for: _____

Comments on performance during cruise (comments should also be reflected in the post-cruise report):

Salinometer:

Make: _____ Model: _____ Serial Number: _____
Comments on performance during cruise (comments should also be reflected in the post-cruise report):

Oxygen Kit(s):

Make: 105 Kit #1 Model: R980 Kit Number: #1
Make: _____ Model: _____ Kit Number: _____

Comments on performance during cruise (comments should also be reflected in the post-cruise report):

System worked well with only minor problems resolved before day analysis, lost one sample due to program error.

Thermosalinograph System (SBE21):

Program: _____ Version: _____

Sampling interval (seconds): _____
Fluorometer sensor serial number: _____

Comments on performance during cruise (comments should also be reflected in the post-cruise report):

ADCP Setup:

Computer time zone: _____ User Exits: Name: _____ Exit points: _____
Sampling interval (sec): _____ Name: _____ Exit points: _____
Bin Length: (2^x): _____ Name: _____ Exit points: _____
Pulse Length: _____ Work File: _____
Buffer (bytes): _____
Gyro Offset: _____

Comments on performance during cruise (comments should also be reflected in the post-cruise report):

CTD Test Cast Information

Test Cast along side?

Yes ☐ No ☐

Comments

Test Cast in Saanich Inlet or other location?

Yes ☐ No ☐

Comments

CTD pressure reading on deck (db), before cast: _____ after cast: _____

Pumps working?

Yes ☐ (0011) No ☐ (0010)

Secondary Temp – Primary Temp:

(Average from the mixed region)

Secondary Salinity – Primary Salinity:

(Average from the mixed region)

Additional Comments:

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Month <u>SEP</u>				Year <u>2012</u>			Ship <u>VECTOR</u>				Cruise ID <u>2012-06</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
19	SI	2243	BE	ROS	U/S	1	48 39.47	123 29.93	171	100	1-9	9	PC	✓	
		2246	BO				39.47	29.94							
		2256	EN				39.49	29.94							
20	58	0032	BE	ROS		2	48 43.00	123 14.25	333				PC	✓	change Fluorometer cable for 3x to 10x
		0040	BO				43.03	14.18		327					
		0047	EN				43.03	14.09							
20	59	0136	BE	ROS	U/S	3	48 37.77	123 14.67	226		10-23	14	PC	✓	Die str
		0141	BO				37.77	14.65		222					
		0200	EN				37.78	14.63							
20	60	0243	BE	ROS		4	48 33.78	123 12.97	303				PC	✓	ship repositioned
		0302	BO				33.79	12.97		298					end of cast
		0309	EN				33.80	12.94							ΔZ 1.8 m/s' downcast
20	61	0351	BE	ROS		5	48 29.20	123 9.35	284				PC	✓	ΔZ 1.0 m/s'
		0356	BO				29.20	9.39		276					change bench to
		0401	EN				29.20	9.39							high speed

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 — = —

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
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Notes:

Time Code:

BE = Beginning Time of Cast
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Transmissometer to be cleaned before each cast, do not use Ammonia products

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Depart Port Bay 15h15 local time, beam & sunny

- extensive vessel repositioning - restart cast

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							Latitude	Longitude							
20	103	1103	BE	ROS		6	48 32.99	124 42.99	120				SR	✓	Syringes/ph bottle in
		1105	BO				32.98	42.99		115					
		1108	EN				32.98	42.98							
20	102	1139	BE	ROS	US	7	48 30.00	124 44.01	255		24-37	14	SR	✓	Vent o-ring on bot 14 replaced
		1145	BO				30.02	43.99		249					
		1207	EN				30.06	43.75							
20	101	1252	BE	ROS		8	48 25.44	124 45.12	240				SR	✓	
		1257	BO				25.44	45.09		235					
		1302	EN				25.44	45.03							
20	74	1357	BE	ROS		9	48 25.09	124 35.53	185				SR	✓	
		1402	BO				25.10	35.56		180					
		1405	EN				25.08	35.50							
20	75	1450	BE	ROS	US	10	48 28.16	124 32.85	223		38-51	14	SR	✓	Fired 15 @ 11's depth as 11 wasn't tripping consistently
		1455	BO				28.15	32.85							
		1517	EN				28.14	32.85							
20	76	1553	BE	ROS		11	48 31.37	124 30.00	89				SR	✓	
		1555	BO				31.39	30.00		83					
		1557	EN				31.39	30.00							

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							Latitude	Longitude								
20	73	1846	BE	ROS		12	48 15.01	124 6.72	159				PC	✓		
		1850	BO				15.01	6.72		155						
		1853	EN				15.01	6.72								
20	72	1935	BE	ROS	U/S	13	48 18.37	124 4.12	188		52-64	13	PC	✓		fine bot 17 in case
		1939	BO				18.37	4.11		185						bot 11 fails
		1951	EN				18.37	4.11								-11 works!
20	71	2034	BE	ROS		14	48 22.13	123 59.43	110				PC	✓		July 2012-58 ?
		2038	BO				22.13	59.43		105						Greengrass Vector sub, p.c.
		2040	EN				22.14	59.41								okay
20	70	2157	BE	ROS		15	48 19.30	123 43.30	143				PC	✓		
		2159	BO				19.30	43.27		142						
		2202	EN				19.31	43.25								
20	69	2236	BE	ROS	U/S	16	48 15.46	123 43.33	175		65-76	12	PC	✓		
		2239	BO				15.47	43.33		173						
		2252	EN				15.49	43.51								

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							Latitude	Longitude							
20	68	2324	BE	ROS		17	48 12.24	123 42.98	140				PC	✓	
		2327	BO				12.24	42.95		134					
		2330	EN				12.26	42.93							
21	105	0113	BE	ROS		18	48 10.99	123 18.97	85				PC	✓	
		0116	BO				11.00	18.88		81					
		0117	EN				11.00	18.83							
21	ADCP	0151	BE	ROS	US	19	48 13.98	123 18.08	120		77-86	10	PC	✓	sees building & confused - weights on bottom - 10 m
		0154	BO				13.99	18.04		113					
		0203	EN				13.92	17.87							
21	104	0258	BE	ROS		20	48 20.01	123 17.89	83				PC	✓	chains on fog lifting
		0301	BO				20.03	17.88		73					
		0302	EN				20.04	17.88							
21	67	0332	BE	ROS		21	48 22.60	123 18.13	110				PC	✓	chains on sea conditions calmer - fog lifts
		0336	BO				22.60	18.12		103					
		0338	EN				22.60	18.12							

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This page is for any notes or observations

FOCCY FOCCY DAY

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Month SEP				Year 2012			Ship		VECTOR		Cruise ID 2012-06					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments	
							Latitude	Longitude								
21	66	0415	BE	ROS		22	48 19.25	123 14.32	100				PC	✓	Weights on	
		0418	BO				19.22	14.37		91					and picking up	
		0420	EN				19.21	14.38								
21	65	0555	BE	ROS	US	23	48 15.97	123 9.17	120		87-96	10	PC	✓	no oxygen samples	
		0558	BO				15.93	9.30		112					Weights on; 6-10	
		0608	EN				15.83	9.61								
21	64	0724	BE	ROS		24	48 13.41	123 5.72	96				SR	✓	weights on	
		0727	BO				13.41	5.77		86						
		0729	EN				13.41	5.80								
21	63	0823	BE	ROS		25	48 14.59	122 58.48	150				SR	✓		
		0826	BO				14.60	58.48		142						
		0829	EN				14.61	58.48								
21	62	0947	BE	ROS	US	26	48 22.86	123 2.53			97-107	11	SR	✓		
		0951	BO				22.87	2.52								
		1004	EN				22.88	2.51								

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Month Sept				Year 2012			Ship Vector				Cruise ID 2012-06					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned		Comments
							Latitude	Longitude								
21	54	1157	BE	ROS		27	48 26.60	122 44.29	75				SR	✓		
		1159	BO				26.60	44.29		70						
		1201	EN				26.60	44.29								
21	53	1251	BE	ROS		28	48 33.21	122 44.99	59				SR	✓		
		1252	BO				33.22	44.98		54						
		1254	EN				33.23	44.98								
21	52	1334	BE	ROS		29	48 38.99	122 43.36	98				SR	✓		
		1337	BO				39.00	43.37		94						
		1339	EN				39.02	43.39								
21	51	1452	BE	ROS		30	48 46.74	122 51.60	164				SR	✓		
		1455	BO				46.73	51.61		159						
		1459	EN				46.72	51.64								
21	56	1551	BE	ROS	US	31	48 46.46	123 1.52	210		108-121	14	SR	✓		bot 14 still leaking,
		1555	BO				46.55	1.43		207						replaced spigot
		1609	EN				46.80	1.10								orings this time.
21	57	1653	BE	ROS		32	48 43.99	123 8.05	156				SR	✓		
		1657	BO				43.98	8.02		151						
		1659	EN				43.98	7.98								

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Month <i>Sept</i>				Year <i>2012</i>			Ship <i>Vector</i>					Cruise ID <i>2012-06</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments	
							Latitude	Longitude								
21	47	1812	BE	ROS		33	48	49.30	123	6.18	185			SR	✓	
		1815	BO					49.30		6.20		180				
		1819	EN					49.30		6.21						
21	48	1845	BE	ROS		34	48	51.66	123	3.25	225			RC	✓	
		1851	BO					51.64		3.29		221				
		1855	EN					51.62		3.30						
21	49	1932	BE	ROS		35	48	54.98	123	59.67	131			RC	✓	
		1936	BO					54.98		59.69		129				
		1938	EN					54.98		59.71						
21	50	2006	BE	ROS		36	48	57.75	122	56.19	25			RC	✓	
		2009	BO					57.77		56.15		21				
		2009	EN					57.78		56.15						
21	44	21:07	BE	ROS		37	48	56.714	123	5.984	118			FL	✓	
		21:09	BO					56.706		5.972		114				
		21:11	EN					56.695		5.968						

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned		Comments
							Latitude	Longitude								
21	45	21:39	BE	ROS		38	48 53.918	123 8.446	127				FL.	✓		
		21:43	BO				53.906	8.454		124						
		21:45	EN				53.902	8.454								
21	46	22:11	BE	ROS	US	39	48 51.43	123 10.91	177		122-133	12	PC	✓		In bottle 14
		22:16	BO				51.43	10.93		176						for integrity check
		22:28	EN				51.436	11.075								- okay
21	106	23:24	BE	ROS		40	49 0.15	123 13.10	109				PC	✓		offset station to
		23:30	BO				0.11	13.17		107						avoid crab floats
		23:32	EN				0.09	13.16								
21	107	23:57	BE	ROS		41	48 58.53	123 17.78	177				PC	✓		
22		00:02	BO				58.52	17.78		175						
		00:04	EN				58.50	17.79								
22	43	00:59	BE	ROS		42	49 0.29	123 30.09	205				PC	✓		
		01:05	BO				0.28	30.09		203						
		01:08	EN				0.28	30.09								

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Notes:

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Month <u>SEP</u>				Year <u>2012</u>				Ship <u>VECTOR</u>				Cruise ID <u>2012-06</u>			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
22	42	0132	BE	ROS	US	43	49 1.75	123 26.34	320		134-149	16	PC	✓	
		0139	BO				1.74	26.34		316					
		0155	EN				1.74	26.35							
22	42	0234	BE	NET		44	49 1.99	123 26.31	318				KY		SOM SCOR NET
		0236	BO				1.99	26.31		50					Kelly + Kenney
		0237	EN				2.00	26.32							
22	42	0242	BE	NET		45	49 2.00	123 26.32	319				KY		full column tow
		0253	BO				2.05	26.32		309					SCOR NET
		0259	EN				2.08	26.39							
22	41	0327	BE	ROS		46	49 3.32	123 22.41	246				PC	✓	
		0332	BO				3.33	22.42		242					
		0356	EN				3.34	22.41							
22	108	0355	BE	ROS		47	49 4.08	123 19.23	115				PC	✓	
		0358	BO				4.09	19.23		110					
		0400	EN				4.09	19.23							

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SEP				2012			VECTOR				2012-06				
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							Latitude	Longitude							
22	37	0524	BE	ROS		48	49 13.53	123 20.89	218		—	—	PC	✓	
		0529	BO				13.47	20.89		215					
		0533	EN				13.45	20.87							
22	38	0604	BE	ROS		49	49 11.99	123 26.23	301		—	—	PC	✓	
		0610	BO				12.01	26.22		300					
		0615	EN				12.02	26.20							
22	39	0650	BE	ROS	US	50	49 9.95	123 32.73	370		150-166	17	PC	✓	
		0659	BO				9.93	32.72					SR		
		0720	EN				9.94	32.74							
22	40	0753	BE	ROS		51	49 8.61	123 36.79	147		—	—	SR	✓	
		0756	BO				8.61	36.80		142					
		0759	EN				8.61	36.80							
22	26	0912	BE	ROS		52	49 14.33	123 50.79	253		—	—	SR	✓	
		0917	BO				14.31	50.78							
		0922	EN				14.31	50.77							

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							Latitude	Longitude							
22	GEO1	0956	BE	NET		53	49 14.955	123 44.764	400				SR		
		0957	BO	NET			14.955	44.764		50					
		0959	EN	NET			14.954	44.765							
22	GEO1	1004	BE	NET		54	49 14.950	123 44.769	400				SR		
		1018	BO				14.930	44.783		390					
		1026	EN				14.920	44.777							
22	27	1104	BE	ROS	US	55	49 19.16	123 47.97	344		167-182	16	SR	✓	
		1111	BO				19.17	47.99		339					
		1129	EN				19.19	48.08							
22	28	1210	BE	ROS		56	49 24.11	123 45.38	134				SR	✓	
		1212	BO				24.13	45.39		129					
		1215	EN				24.13	45.40							
22	24	1403	BE	ROS		57	49 30.30	124 5.97	425				SR	✓	
		1411	BO				30.33	5.97		420					
		1418	EN				30.37	5.98							

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

Produced by the Water Properties Group, IOS

WaterProperties.ca

Version: 06 March 2008

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month				Year			Ship			Cruise ID						
Sept				2012			Vector			2012-06						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments	
							Latitude	Longitude								
22	25	1442	BE	ROS		58	49 27.72	124 7.47	290				SR	✓		
		1452	BO				27.72	7.47		285						
		1457	EN				27.72	7.48								
22	2	1526	BE	ROS	US	59	49 24.06	124 9.31	280		183-197	15	SR	✓		
		1532	BO				24.05	9.32								
		1548	EN				24.05	9.30								
22	CFPI	1619	BE	NET		60	49 18.45	123 33.97	246				SR			
		1621	BO				49 22.045	124 05.121		50						
		1623	EN				22.051	05.126								
22	CFPI	1627	BE	NET		61	49 22.045	124 05.108	245				SR			
		1635	BO				22.069	05.103		235						
		1640	EN				22.076	05.103								
22	1	1716	BE	ROS		62	49 20.33	124 12.02	249				SR	✓		
		1721	BO				20.33	12.02		244						
		1725	EN				20.35	12.05								

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DAILY SCIENCE LOG

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Month <u>Sept</u>				Year <u>2012</u>			Ship <u>Vector</u>				Cruise ID <u>2012-06</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
22	4	1816	BE	ROS		63	49 24.47	124 22.15	341				SR	✓	
		1823	BO				24.49	22.14		336					
		1829	EN				24.50	22.15							
22	3	1849	BE	ROS	US	64	49 26.56	124 20.29	327		198-213	16	PC	✓	no oxygen samples
		1856	BO				49 26.55	124 20.27		322					
		1914	EN				49 26.52	124 20.27							
22	5	2005	BE	ROS		65	49 27.41	124 30.71	317				PC	✓	
		2012	BO				27.42	30.79		312					
		2017	EN				27.42	30.83							
22	CPF2	2027	BE	NET		66	49 27.46	124 30.94	318				KY		0-50 m
		2029	BO				27.46	30.95		50					
		2030	EN				27.46	30.96							
22	CPF2	2034	BE	NET		67	49 27.45	124 31.00	310				KY		0 to 10 m off bottom
		2045	BO				27.42	31.17		300					
		2051	EN				27.42	31.16							

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Month <u>SEP</u>				Year <u>2012</u>			Ship <u>VECTOR</u>				Cruise ID <u>2012 06</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
22	6	2126	BE	ROS	US	68	49 30.66	124 27.77	192		214-226	13	PC	✓	
		2131	BO				30.68	27.80		187					
		2143	EN				30.75	27.78							
22	7	2213	BE	ROS		69	49 34.36	124 24.41	348				PC	✓	
		2222	BO				34.40	24.42		344					
		2227	EN				34.43	24.42							
22	8	2315	BE	ROS		70	49 39.28	124 32.94	337				PC	✓	
		2322	BO				39.33	32.96		333					
		2327	EN				39.36	32.98							
23	9	0030	BE	ROS	US	71	49 35.52	124 38.49	166		227-238	12	PC	✓	no oxygen samples
		0035	BO				35.53	38.53		161					
		0046	EN				35.52	38.63							
23	10	0136	BE	ROS		72	49 40.63	124 47.21	92				PC	✓	
		0139	BO				40.65	47.22		88					
		0141	EN				40.65	47.22							

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			Year				Ship				Cruise ID				
SEP			2012				VECTOR				2012-06				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
23	11	0202	BE	ROS		73	49 42.35	124 43.57	293				PC	✓	
		0210	BO				42.41	43.62		289					
		0215	EN				42.44	43.64							
23	11	0221	BE	NET		74	49 42.48	124 43.69	297				KS		0-50 m scor
		0223	BO				42.49	43.71		50					net tow
		0224	EN				42.49	43.71							
23	11	0230	BE	NET		75	49 42.50	124 43.73	297				KS		0 to bottom - 10 m
		0241	BO				42.52	43.73		287					scor met tow
		0246	EN				42.53	43.73							
23	12	0304	BE	ROS	US	76	49 43.57	124 40.98	354		239-254	16	PC	✓	
		0313	BO				43.54	40.99		348					
		0329	EN				43.55	41.14							
23	22	0542	BE	ROS		77	49 40.26	124 16.37	355				PC	✓	
		0549	BO				40.27	16.40		351					
		0555	EN				40.29	16.42							

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month				Year			Ship				Cruise ID				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
23	22	0558	BE	NET		78	49 40.30	124 16.43	355				KS		0-50 m Sam Net
		0600	BO				40.30	16.44		50					
		0601	EN				40.31	16.45							
23	22	0608	BE	NET		79	49 40.36	124 16.50	365				KS		0-bottom-10
		0620	BO				40.41	16.55		355					Scot net tow
		0627	EN				40.42	16.57							
23	20	0752	BE	ROS		80	49 47.26	124 32.29	296				SR	✓	
		0758	BO				47.26	32.30		290					
		0803	EN				47.27	32.29							
23	15	1003	BE	ROS		81	49 51.62	125 1.57	128				SR	✓	
		1006	BO				51.63	1.57		123					
		1009	EN				51.63	1.57							
23	14	1027	BE	ROS	US	82	49 53.00	124 59.57	313		255-269	15	SR	✓	
		1033	BO				52.98	59.53							
		1050	EN				52.99	59.61							

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DAILY SCIENCE LOG

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Month <u>Sept</u>				Year <u>2012</u>			Ship <u>Vector</u>				Cruise ID <u>2012-06</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
23	13	1123	BE	ROS		83	49 55.32	124 55.21	238				SR	✓	
		1127	BO			-	55.30	55.22		237					
		1131	EN				55.28	55.22							
23	19	1234	BE	ROS		84	50 1.18	124 52.81	270				SR	✓	
		1238	BO				1.17	52.80		264					
		1243	EN				1.17	52.80							
23	18	1316	BE	ROS		85	49 59.22	124 58.94	144				SR	✓	
		1319	BO				59.22	58.95		139					
		1322	EN				59.21	58.95							
23	17	1402	BE	ROS		86	49 58.80	125 4.34	262				SR	✓	
		1407	BO				58.77	4.34							
		1411	EN				58.80	4.34							
23	21	1556	BE	ROS		87	50 1.53	125 12.80	82				SR	✓	Zodiac left @ 15
		1557	BO				1.45	12.73		77					with Kelly + Liana
		1559	EN				1.39	12.68							for Sea lice survey

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- RIB alongside @ 12h00

- Middlemarch Island shore party away 12h30 return 15h30

- Tie up Port Bay 08h05 24 Sep 2017