

DAILY LOG BOOK

MISSION
NUMBER

2005-08

DATE:

From: Apr. 25 to: May 7, 2005

VESSEL:

CCGS J. P. Tully

PROJECT:

La Perouse, Juan de Fuca, BIO, Sill,
ECOHAB, Aquaculture.

INSTITUTE OF OCEAN SCIENCES
OCEAN SCIENCES AND PRODUCTIVITY DIVISION
SIDNEY, BC, CANADA

Captain: Bill Noon First Officer: Kevin
Second Officer: Sean Third Officer: Tom

Mission Participants / Agencies: OSAP UW NOAA

Scientific Personnel:

Name	Watch	Cabin	Name	Watch	Cabin
<u>Tom Juhasz</u>					
<u>Lucius Perreault</u>					
<u>Bob Reed</u>					
<u>Dave Spear</u>					
<u>Hugh Maclean</u>					
<u>Lad Leault</u>					
<u>Jane Feert</u>					
<u>Ryan Flagg</u>					

Second leg of Mission:

Name	Watch	Cabin	Name	Watch	Cabin
<u>Jim Johnson</u>					
<u>Keith Mayness</u>					

Data logging computer:

PACOSAP - F303

Data acquisition program:

CTD deck unit make: SETELL model: 11 serial number: 0503

Primary CTD

Make: SEC model: 911+ serial number: 0443

Primary temperature serial number: 2449

Primary conductivity serial number: 2102

Secondary temperature serial number: 2968

Secondary conductivity serial number: 1729

Transmissometer: CHESSA Model:

Fluorometer: Model SEAPOINT Cable gain: 10 x 0.15 s/n: 333AR

Oxygen sensor: SEI 43 Model: 43 s/n: 2356 P S or NO pump?

PAR sensor: Model: s/n: 0766 P S or NO pump?

Other sensors: ALTIMETER s/n: 1024 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: s/n: P S or NO pump?

Oxygen sensor: Model: s/n: P S or NO pump?

PAR sensor: Model: 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?

Other sensors: s/n: P S or NO pump?

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

Date Time PDT.

Apr. 25.

0830 - 2100

- loading + setup.
- Nick Adams delivers 3 aqua-monitors 2 ISUS
- minor problem with finding a mate for the ship
- held pre cruise meeting - safety issues + ship procedures discussed Cap't, Chief Sci, Chief Eng, Chief Mate Bosun
- discussed life-lines and this will only happen if conditions (including behaviour of people merit it)
- sailed - all people + equipment on board.

2400

Apr. 26

0750

- on station B102-G for recovery
- can not range on release, it or something else is giving a constant signal, - all sounders turned off etc.
- sent CDFG signal - signal still in water - is release continuously on?

0800

- sent ABFF received positive signal.

0801

- sighted on surface.

- no recovery line
- very broken Andevaa thimble on longest line should not have been deployed.
- recovered without incident in flat calm

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Month				Year			Ship				Cruise ID				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
26	N101	1924	BE	CTD		001	49 13.39	123 51.33	124	119			U.M.	✓	T: 10.90 S: 28.19
		1928	BO				49 13.40	123 51.33							
		1931	EN				49 13.416	123 51.334							
26	N102	2027	BE	CTD		002	49 14.693	123 48.655	334	+deepening.			T.J. H.M.D.S	✓	T: S:
		2036	BO				49 14.706	123 48.611	343						missed this. opps.
		2042	EH				49 14.699	123 48.601							
26	N103	2104	BE	CTD	U.S.	003	49 15 96	123 45 87	413		1	1			SALC 400m
		2111	BO				49 15 98	123 45 86		400			H.M./D.S	✓	T: 12.69 S: 27.69
		2117	EN				49 15 99	123 45 84							
26	N104	2144	BE	CTD		004	49 17.902	123 42.450	294				H.M.	✓	T: 9.564 S: 31.001
		2151	BO				49 17.940	123 42.51		289					
		2156	EN				49 17.963	123 42.554							
26	N105	2223	BE	CTD		005	49 19 66	123 38 68	263				H.M./T.E.	✓	T: 12.28 S: 27.67
		2234	BO				49 19 70	123 38 80		256					
		2238	EN				49 19 73	123 38 88							

Cast type:

BOT = bottle cast, no CTD
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USW = sea water loop
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bottle firing method:

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

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Date Time PDT

Apr. 26 0911

- on station SG02-G for recovery
- discovered source of noise was lab sounder activated but screen was off so it appeared to be off at quick glance.

0914

- received range 265m, 265m - we are directly over.
- move off to release position
- ranges 435, 435, 434. 2 cables off.

0918

- sent BCFG - received positive response
- almost immediately sighted on surface.
- recovered without incident
- top instrument rotor missing
- head for CTD's on NIO Line

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APRIL				2005				TULLY				2005-08			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
26	N106	2309	BE	CTD		006	49 21.47	123 35.06	174	167			JE/RR/RE	X	Surface TS T:13.03 S:23.322
		2313	BO				49 21.53	123 35 11							Seasave crashed
		2315	EN				49 21.56	123 35.14						✓	
26	N107	2333	BE	CTD		007	49.22.50	123 33.000	55				RR/DE/RE	✓	
			BO				49 22.51	123 33.05		56					Seasave crashed
		2341	EN				49 22.508	123 33.084						✓	
27	G105	0036	BE	CTD		008	49 17.46	123 29.86	175					✓	T:10.92 S:27.05
		0040	BO				49 17.47	123 29.89		169					
		0043	EN				49 17.49	123 29.92						✓	
27	G103	0146	BE	CTD		009	49 10.127	123 33.158	376					✓	T:13.57 S:23
		0152	BO				49 10.412	123 33.622		373					T:9.66 S:31.04
		0200	EN				49 10.541	123 33.673						✓	
27	N105	0311	BE	CTD		010	49 11 43	123 18 01					H-y/L.L	✓	T:11.34 S:24.69
		0313	BO				49 11 43	123 18 01							
		0315	EN				49 11 44	123 17 99							

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APRIL				2005			TULLY				2005-08				
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							Latitude	Longitude							
27	VI 04	0350	BE	CTD		011	49 08 75	123 23 30	185				AM/LL/LP	✓	T: 11.94 S: 23.27
		0354	BO				49 08 77	123 23 30		179					
		0357	EN				49 08 79	123 23 29							
27	VI 03	0434	BE	CTD	U.S.	012	49 05 96	123 29 01	342				AM/LL/LP	✓	T: 11.81 S: 27.33
		0441	BO				49 05 94	123 29 10		335	2	1			SAL @ 335m
		0447	EN				49 05 98	123 29 10							
27	VI 02	0509	BE	CTD		013	49 04 42	123 32 18	273				AM/LL/LP	✓	T: 12.33 S: 21.69
		0514	BO				49 04 38	123 32 19		254					
		0518	EN				49 04 38	123 32 19							
27	VI 01	0541	BE	CTD		014	49 03 03	123 35 12	151				AM/LL/LP	✓	T: 10.98 S: 26.92
		0545	BO				49 03 01	123 35 12		145					
		0548	EN				49 03 00	123 35 11							
27	VI 01	0738	BE	CTD		015	48 52 35	123 14 51	152				JE/RR/RF	✓	T: 9.9 S: 28.04
		0743	BO				48 52 37	123 14 50		147					deep fluorescence layer
		0745	EN				48 52 38	123 14 48						✓	
Cast type: USW = sea water loop bottle firing method: Time Code															

Cast type: BOT = bottle cast, no CTD CTD = CTD without Rosette ROS = Rosette plus CTD

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Date Time PDT

- | Date | Time | PDT |
|---------|-------------|--|
| Apr. 27 | 0730 - 0800 | <ul style="list-style-type: none"> - on station B102-H for deployment |
| | 0940 | <ul style="list-style-type: none"> - set-up and prep mooring - launched B102-H in 278 - 3.3 m tide = 274.7 m datum at position $49^{\circ} 00.464'$ $123^{\circ} 23.155'$ |
| | 0950 | <ul style="list-style-type: none"> - head for A504 for recovery |
| | 1215 | <ul style="list-style-type: none"> - meet Les at Sidney dock to pick up 2 releases that were not ready for loading Apr. 25. |
| | 1419 | <ul style="list-style-type: none"> - on station A504-C for recovery - sent 8221 EN #848 range 124 - ranging 129, 134, 137, 141 drifting off 157 - ranging with '847' as well " " 157 - receiving Rec + Exe response each time |
| | 1424 | <ul style="list-style-type: none"> - range 180 and 189 |
| | 1425 | <ul style="list-style-type: none"> - moving off not just drifting |
| | 1429 | <ul style="list-style-type: none"> - ranges 350 - 359 - send 8212 to turn off #847 - sent 8225 to release #848 got Rec'd + Exe |
| | 1430 | <ul style="list-style-type: none"> - sighted on surface |

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
27	M103	0817	BE	CTD		016	48 55.229	123 10.778	128				RR/SE/RF	✓	T: 10.6 S: 28.5
		0820	Bo				48 55.208	123 10.772		120					T: 9.001 S: 30.0
		0822	EN				48 55.200	123 10.778						✓	
27	M105	0858	BE	CTD		017	48 57.00	123 08.17	114				JE/RR/RF	✓	T: 10.5 S: 28.10
		0902	Bo				48 57.00	123 08.24		109					waited 10 mins for draft
		0903	EN				48 57.01	123 08.27							
27	M107	0926	BE	CTD		018	48 58.841	123 05.843	46				RR/SE/RF	✓	T: 11.4 S: 27.8
		0928	Bo				48 58.835	123 05.860		40					
		0929	EN				48 58.832	123 05.872						✓	
27	B102-H	0949		MOR		019	49 00.464	123 23.155	274.7				TJ.DS. L.H.		
27	JFA1	2224	BE	CTD		020	48 22 12	123 19 87	94				H.N/L/LA	✓	T: 9.68 S: 30.88
		2226	Bo				48 22 16	123 19 81		93					
		2228	EN				48 22 19	123 19 76							

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							Latitude	Longitude							
27	JFA2	2250	BE	ROS		021	48 20 81	123 19 85	46				HM/LL/LP	✓	T: 9.49 S: 30.64
		2251	BO				48 20 81	123 19 79							
		2253	EN				48 20 82	123 19 76							
27	JFA3	2325	BE	CTD		022	48 17.30	123 19.68	87				JE/RA/RF	✓	T: 9.8 S: 30.60
		2328	BO				48 17.34	123 19.72		81					
		2332	EN				48 17.37	123 19.70							
28	JFA4	0000	BE	CTD		023	48 14.320	123 19.859	68					✓	T: 9.8 S: 30.7
		0003	BO				48 14.328	123 19.817		65					
		0005	EN				48 14.298	123 19.776						✓	
28	JFA5	0029	BE	CTD		024	48 11.86	123 19.95	94				JE/DS	✓	T: 10.5 S: 31.07
		0032	BO				48 11.87	123 19.93		91					
		0033	EN				48 11.85	123 19.91						✓	
28	JFA6	0120	BE	CTD		025	48 09.19	123 19.85	55				JE/RA/RF	✓	T: 9.5 S: 31.20
		0122	BO				48 09.19	123 19.80		50					waited for traffic off
		0123	EN				48 09.19	123 19.79							Edy Hook

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Month April				Year 2005			Ship TULLY				Cruise ID 2005-08				
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							Latitude	Longitude							
28	JFB5	0245	BE	CTD		026	48 9.871	123 35.134	58				RR/DE/RF		T: 10.10 S: 31.34
		0247	Bo				48 9.896	123 34.969		50					
		0248	EN				48 9.905	123 34.910							
28	JFB4	0308	BE	CTD		027	48 11 72	123 35 31	136				H.M/LL/LP	✓	T: 9.80 S: 31.43
		0311	Bo				48 11 65	123 35 28		129					
		0313	EN				48 11 61	123 35 22							
28	JFB3	0334	BE	CTD		028	48 13 78	123 35 22	159				H.M/LL/LP	✓	T: 9.79 S: 31.42
		0337	Bo				48 13 82	123 35 22		155					
		0340	EN				48 13 83	123 35 17							
28	JFB1	0429	BE	CTD		029	48 17 73	123 35 22	154				H.M/LL/LP	✓	T: 9.50 S: 31.35
	*	0432	Bo				48 17 72	123 35 26		145					SKIPPED #2 - TRAFFIC
		0435	EN				48 17 72	123 35 29							will go BACK AFTER #1
28	JFB2	0502	BE	CTD		030	48 16 00	123 35 21	184				H.M/LL/LP	✓	T: 9.41 S: 31.37
		0506	Bo				48 16 06	123 35 28		175					
		0509	EN				48 16 10	123 35 32							

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							Latitude	Longitude							
28	JFC1	0559	BE	CTD		031	48 20 20	123 45 02	62				HM/LL/LP	✓	T: 10.12 S: 31.31
		0601	BO				48 20 23	123 45 03		55					
		0602	EN				48 20 24	123 45 04							
28	JFC2	0619	BE	CTD		032	48 18 48	123 44 33	174				HM/LL/LP	✓	T: 9.80 S: 31.3
		0623	BO				48 18 46	123 45 02							
		0625	EN				48 18 47	123 45 05							
28	JFC3	0725	BE	CTD		033	48 16.53	123 44.98	184				JE/RR/RF	✓	waiting for traffic T: 9.6 S: 31.31
		0730	BO				48 16.56	123 44.97		179					
		0732	EN				48 16.56	123 44.97						/	
28	JFC4	0755	BE	CTD		034	48 14.434 N	123 45.022 W	169				RR/SE/RF	✓	T: 9.9 S: 31.0
		0759	BO				48 14.452 N	123 45.002 W		160					
		0802	EN				48 14.444 N	123 45.008 W							
28	JFC5	0826	BE	CTD		035	48 12.40 N	123 45.00 W	141				JE/RR/RF	✓	T: 9.8 S: 31.33
		0829	BO				48 12.39 N	123 44.96 W		136					
		0831	EN				48 12.39 N	123 44.95 W							

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							Latitude	Longitude							
28	JFC6	0853	BE	CTD		036	48 10.41	123 44.99	54				RR/SE/RF	✓	T: 9.5 S: 31.6
		0855	BO				48 10.43	123 44.98		45					
		0856	EN				48 10.45	123 44.96							
28	JFD7	1000	BE	CTD		037	48 11.78	124 00.01	50				JE/RR/RF	✓	T: 9.8 S: 31.29
		1003	BO				48 11.79	124 00.05		45					
		1004	EN				48 11.80	124 00.06							
28	JFD6	1022	BE	CTD		038	48 13.79	123 59.930	124				RR/SE/RF	✓	T: 9.6 S: 31.2
		1025	BO				48 13.777	123 59.866		118					
		1027	EN				48 13.758	123 59.840						✓	
28	JFD5	1048	BE	CTD		039	48 15.82	124 00.00	184				JE/RR/RF	✓	T: 9.8 S: 31.22
		1052	BO				48 15.82	124 00.02		179					
		1054	EN				48 15.81	124 00.02							
28	JFD4	1114	BE	CTD		040	48 17.722	123 59.946	191				RR/SE/RF		T: 9.5 S: 31.2
		1118	BO				48 17.698	123 59.926		185					
		1121	EN				48 17.674	123 59.927							

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							Latitude	Longitude								
28	JFD3	1142	BE	CTD		041	48 19.60	124 00.06	171				JE/RF	✓	T: 10.1 S: 31.10	
		1146	BO				48 19.61	124 00.05		166						
		1149	EN				48 19.63	124 00.03						✓		
28	JFD2	1211	BE	CTD		042	48 21.786	124 00.012	126				RR/JE/RF	✓	T: 10.00 S: 31.15	
		1215	BO				48 21.796	123 59.905		120						
		1217	EN				48 21.790	123 59.866						✓		
28	JFD1	1234	BE	CTD		043	48 23.13	123 59.99	45				JE/RR/RF	✓	T: 9.5 S: 31.42	
		1236	BO				48 23.14	124 00.00		39					Raw data backed up to CD	
		1237	EN				48 23.14	124 00.00								
28	JFE7	2015	BE	CTD		044	48 16.65	124 15 34	120				HM/TJ/AS	✓	T: 9.72 S: 31.29	
		2018	BO				48 16.71	124 15 34								
		2021	EN				48 16.75	124 15 35								
28	JFE6	2038	BE	CTD		045	48 17.59	124 15 26	170				HM/TJ/AS	✓	T: 10.15 S: 31.25	
		2041	BO				48 17.60	124 15 26		160					WEIGHTS ON - NO HEAVE	
		2044	EN				48 17.61	124 15 25							COMPENSATOR	

Cast type:

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MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:

US = up / stop
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28 May 2003
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Date Time PDT

- Apr. 28 0745 - on station JF2B-F for recovery. - saw mooring on sonar - individual buoys
 - sent 8231 repeatedly and received bad ranges but also the Rec'd + Exec'd responses
 - sent 8332 and 8331 Disable/Enable - no improvement on ranges
 0756 - moved back over mooring to verify with pinger.
 - heard 2 pingers on station and as we drifted off.
 - ranges 197, 200 - 2 good ranges then they went bad again
 - trying dunking transducer - drifting off.
 ranges 211, 213, 235, 252, 259, 264, 273, 282
 0818 - range 311, 320, sent 8235 received "Rec'd + Exec."
 0819 - sighted on surface
 - recovered OK
 - RCM4 missing rotor on recovery
 - the crew dropped line on recovery requiring separate approach to bottom buoy.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month				Year			Ship				Cruise ID				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
28	JFE 5	2109	BE	CTD		046	48 19 17	124 15 10	211				HM/TJ/OS	✓	T: 9.79 S: 31.36
		2113	BO				48 19 23	124 15 12							
		2116	EN				48 19 25	124 15 15							
28	JFE 4	2138	BE	CTD		047	48 21 23	124 15 22	225				HM/TJ/OS	✓	T: 10.05 S: 31.28
		2143	BO				48 21 24	124 15 17		215					
		2146	EN				48 21 24	124 15 13							
28	JFE 3	2213	BE	CTD		048	48 23 26	124 15 01	184				HM/TJ/OS	✓	T: 9.80 S: 31.32
		2217	BO				48 23 27	124 14 96		177					
		2219	EN				48 23 27	124 14 93							
28	JFE 2	2243	BE	CTD		049	48 25 13	124 14 99	140				HM/TJ/OS	✓	T: 9.59 S: 31.44
		2246	BO				48 25 17	124 14 93		130					
		2249	EN				48 25 18	124 14 89							
28	JFE 1	2310	BE	CTD		050	48 27.16	124 14.96	30				JE/RF	✓	T: 9.6 S: 31.46
		2311	BO							22					
		2312	EN				48 27.18	124 14.92						✓	

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Date Time PDT.

Apr. 28 0932 - on station JF2C-F for recovery.

- range 194, 181, 179

- moving off to release position

0938 - ranges 267, 269.

0940 - sent ADGH received positive response

0941 - sighted on surface. - recovered without incident

- head for JF2E after lunch recovery.

1210 - on station JF2E-F for recovery app. 1 1/2 cable off.

- drifting closer 218, 211, 209

1214 - sent ACEH received positive response.

1215 - sighted on surface

1258 - head for CTD's on JFE Line

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month APRIL				Year 2005			Ship TULLY				Cruise ID 2005-08				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
29	JFF1	0039	BE	CTD		051	48 31.87	124 29.91	57				JE/RF	✓	T: 9.8 S: 31.41
		0040	BO				48 31.86	124 29.89		52					
		0041	EN				48 31.87	124 29.87						✓	
29	JFF2	0102	BE	CTD		052	48 30.49	124 29.97	142				JE/RF	✓	T: 10.1 S: 31.44
		0105	BO				48 30.48	124 29.91		135					fluorescence max @ 30m
		0107	EN				48 30.46	124 29.89						✓	& 80m. Very turbid at bottom.
29	JFF3	0127	BE	CTD		053	48 28.51	124 29.82	215				JE/RF	✓	T: 10.2 S: 31.11
		0131	BO				48 28.52	124 29.83		209					
		0134	EN				48 28.52	124 29.80						✓	
29	JFF4	0154	BE	CTD		054	48 26.53	124 29.93	233				JE/RF	✓	T: 10.3 S: 31.13
		0159	BO				48 26.55	124 29.93		225	3	1			sal cal @ 225m #3
		0202	EN				48 26.55	124 29.92						✓	
29	JFF5	0222	BE	CTD		055	48 24.53	124 29.91	216				JE/RF	✓	T: 10.2 S: 31.16
		0227	BO				48 24.54	124 29.94		211					
		0230	EN				48 24.52	124 29.95						✓	

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

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>APRIL</u>				Year <u>2005</u>			Ship <u>TULLY</u>				Cruise ID <u>2005-08</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
29	JFF6	0250	BE	CTD		056	48 22 48	124 29 94	110				Je/RE	✓	T: 10.1 S: 31.18
		0253	BO				48 22.52	124 29.92		102					
		0254	EN				48 22.52	124 29.91							
29	JFF7	0313	BE	CTD		057	48 20 96	124 30 00	31				HM/LL/LP	✓	T: 9.76 S: 31.49
		0314	BO				48 20 96	124 30 01		25					
		0315	EN				48 20 97	124 30 01							
29	JFG 6	0410	BE	CTD		058	48 24 42	124 40 05	80				HM/LL/LP	✓	T: 9.94 S: 31.16
		0413	BO				48 24 42	124 40 08							
		0415	EN				48 24 42	124 40 11							
29	JFG 5	0436	BE	CTD		059	48 26 50	124 39 87	227				HM/LL/LP	✓	T: 9.65 S: 31.05
		0440	BO				48 26 51	124 39 96		225					
		0444	EN				48 26 50	124 39 94							
29	JFG 4	0504	BE	CTD		060	48 28 32	124 39 97	254				HM/LL/LP	✓	T: 9.93 S: 31.07
		0509	BO				48 28 30	124 39 90		245					
		05	EN				48 28	124 39							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month				Year			Ship				Cruise ID				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
29	JFG 3	0534	BC	CTD		061	48 30 40	124 39 98	237				HM/LL/LP	✓	T: 10.70 S: 30.96
		0539	BO				48 30 44	124 39 95		225					
		05	EN				48 30	124 39							
29	JFG 2	0600	BC	CTD		062	48 32 42	124 39 96	135				HM/LL/LP	✓	T: 10.25 S: 30.83
		0605	BO				48 32 39	124 39 95							
		0607	EN				48 32 39	124 39 97							
29	JFG 1	0625	BC	CTD		063	48 34 10	124 40.01	47				HM/LL/LP	✓	T: 9.65 S: 31.17
		0627	BO				48 34 11	124 40 02							
		0628	EN				48 34 12	124 40 02							
29	LA01	0714	BC	CTD		064	48 29.19	124 43.80	267				JE/KR	✓	T: 10.8 S: 31.02
		0719	BO				48 29.22	124 43.93		258					
		0722	EN				48 29.25	124 44.00							
29	LA02	0806	BC	ROS	US	065	48 26.21	124 51.50	308		4-17	14	JE/RF	✓	T: 10.6 S: 31.07
		0812	BO				48 26.25	124 51.70		299					used heave compensator
		0828	EN				48 26.347	124 52.00						✓	

Cast type:

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Date Time PDT

Apr. 29

0730

- on station JF2C-G for deployment
- setting up on deck

0917

- launched JF2C-G in 184.65 - less .04 tide = 184.25 m datum
at position $48^{\circ}21.516'$
 $124^{\circ}12.791'$

- head to Port Renfrew to swing ADCP compasses

1015

- launched small boat with Lucius and Rob to complete compass calibrations
- the purpose is to calibrate the ADCP's without internal batteries
 - the internal batteries have been in place for 2-3 years and may leak.
- head for LA Line CTD's.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month APRIL				Year 2005				Ship TULLY				Cruise ID 2005-08			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
29	LA03	0911	BE	CTD		066	48 22.850	124 57.731	113				JE/RF/RR	✓	T: 11.6 S: 30.1
		0914	BO				48 22.843	124 57.742		105					Did not use heave comp
		0916	EN				48 22.842	124 57.742						✓	
29	LA04	1002	BE	ROS	US	067	48 19.39	125 04.04	194		18-27	10	RR/JE/RF	✓	T: 10.8 S: 30.59
		1007	BO				48 19.41	125 04.07		185					Heave Comp.
		1017	EN				48 19.47	125 04.12						✓	Raw Data backed up to CD
29	LA05	2320	BE	CTD		068	48 16.14	125 10.62	123				JE/RR/RF	✓	T: 11.4 S: 30.28
		2324	BO				48 16.16	125 10.58		114					
		2327	EN				48 16.17	125 10.57						✓	
30	LA06	0019	BE	ROS	US	069	48 12.68	125 17.13	113		28-35	8	RR/JE/RF		T: 11.2 S: 30.3
		0023	BO				48 12.70	125 17.02		105					
		0028	EN				48 12.74	125 16.93							
30	LA07	0116	BE	CTD		070	48 09.26	125 23.84	115				JE/RR/RF	✓	T: 11.1 S: 32.14
		0119	BO				48 09.30	125 23.84		108					caught a jelly fish
		0121	EN				48 09.31	125 23.84						✓	(much washing ensued)

Cast type:

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

28 May 2003
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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>APRIL</u>				Year <u>2005</u>			Ship <u>TULLY</u>				Cruise ID <u>2005-08</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
30	LA08	0207	BE	ROS	US	071	48 05.75	125 30.37	142		36-43	8	RR/SE/RF	✓	T: 11.2 S: 32.13
		0212	BO				48 05.79	125 30.33		135					
		0222	EN				48 05.78	125 30.36							
30	LA09	0307	BE	CTD		072	48 02 41	125 36 85	360				HM/LL/LP	✓	T: 10.82 S: 32.30
		0313	BO				48 02 48	125 36 83							
		0317	EN				48 02 52	125 36 84							
30	LA 10	0403	BE	ROS	US	073	47 59 05	125 43 40	930		44-61	18	HM/LL/LP	✓	T: 11.12 S: 32.29
		0418	BO				47 59 03	125 43 48		920				e920	T: 3.84 S: 34.34
		0445	EN				47 58 94	125 43 67							
30	LB 14	0619	BE	ROS	US	074	48 08 50	126 00 05	1195		62-79	18	HM/LL/LP	✓	T: 11.17 S: 32.30
		0639	BO				48 08 45	126 00 11		1180					
		0713	EN				48 08.495	126 00 .03					RR/SE/RF		
30	LB13	0743	BE	CTD		075	48 10.60	125 56.13	921				JE/RR/RF	✓	T: 11.03 S: 32.29
		0759	BO				48 10.60	125 56.16		911					
		0811	EN				48 10.70	125 56.19							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month APRIL/MAY				Year 2005			Ship TULLY				Cruise ID 2005-08				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
30	LB12	0845	BE	ROS	US	076	48 12.94	125 51.91	512		80-94	15	RF/SE/RK	✓	T:11.1 S:32.08
		0855	BO				48 12.94	125 51.94		500				✓	
		0912	EN				48 12.95	125 51.90							
30	LB11	0943	BE	CTD		077	48 15.27	125 47.72	207				RR/SE/RK	✓	T:11.1 S:31.7
		0947	BO				48 15.28	125 47.70		195				✓	
		0950	EN				48 15.27	125 47.70							
30	LB10	1035	BE	ROS	US	078	48 18.68	125 41.29	154		95-103	9	RR/SE/RK	✓	T:11.2 S:31.8
		1039	BO				48 18.67	125 41.31		145				✓	Raw Data backed up to CD
		1048	EN				48 18.64	125 41.40							
01	LB01	0107	BE	ROS	US	079	48 40.40	124 59.38	37		104-107	4		✓	T:11.4 S:30.43
		0109	BO				40.37	59.35		31					
		0112	EN				48 40.36	124 59.35							
01	LB02	0135	BE	ROS	US	080	48 39.02	125 02.26	56		108-112	5		✓	T:11.6 S:30.38
		0137	BO				48 39.02	125 02.22		48				✓	
		0140	EN				48 39.03	125 02.14							

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Date Time (PDT)

Apr. 30

0730

- on station A1-NN for recovery
- some distance off while deck is prepared.

0753

- 782, 783 m range

0753

- sent DEGH received positive response
- range 724 = rising

0755

- on surface

0905

- recovered without incident
- NB: Tufftec paint sucks - the pressure washer is removing it in sheets
- the bottom instrument was deployed with PCM5 Vane (5758)
- surprisingly little growth

0907

- on station B101-G for recovery
- ranges 394 395 we are directly over
- move off to release position

0912

- app. 2.7 cables off - range 593, 592
- sent BCD F - rec'd positive response

0913

- on surface

0930-
ish

- called Rick confirmed that Jim + Keith are coming on schedule
- ship heads for Port Renfrew to meet vehicle bringing U.S. techs.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Institute of Ocean Sciences															
Ocean Sciences and Productivity Division															
Month				Year			Ship				Cruise ID				
MAY				2005			TULLY				2005-08				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
01	LB03	0208	BE	CTD	0	081	48 37.30	125 05.51	95				JE/KF	✓	T: 11.4 S: 30.46
		0211	BO				48 37.28	125 05.47		88					
		0212	EN				48 37.28	125 05.45						✓	
01	LB04	0237	BE	ROS	US	082	48 35.67	125 08.62	113		113-119	7	JE/KF	✓	T: 10.95 S: 30.71
		0241	BO				48 35.63	125 08.50		105					manoeuvred a bit at
		0246	EN				48 35.66	125 08.62							surface before cast.
01	LB05	0309	BE	CTD		083	48 34.02	125 11.89	103				HM/LL/LP	✓	T: 11.62 S: 31.01
		0312	BO				48 34.01	125 11.93		100					
		0314	EN				48 34.02	125 11.96							
01	LB06	0340	BE	ROS	U.S.	084	48 32.21	125 15.49	115		120-126	7	HM/LL/LP	✓	T: 11.40 S: 32.01
		0343	BO				48 32.23	125 15.49							
		0350	EN				48 32.29	125 15.44							
01	LB07	0432	BE	ROS	U.S.	085	48 28.66	125 21.90	157		127-135	9	HM/LL/LP	✓	T: 11.35 S: 31.98
		0436	BO				48 28.65	125 21.83							
		0445	EN				48 28.65	125 21.79							
Cast type:				USW = sea water loop			bottle firing method:		Time Code						

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month MAY				Year 2005				Ship TULLY				Cruise ID 2005-08			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
1	LB08	0527	BC	ROS	U.S.	086	48 25 31	125 28 57	139		136-144	9	HM/LLP	✓	T: 12.02 S: 31.11
		0530	BO				48 25 33	125 28 53		132					
		0539	EN				48 25 37	125 28 41							
1	LB09	0620	BC	CTD		087	48 22 04	125 34 76	150				HM/LLP	✓	T: 11.35 S: 31.63
		0623	BO				48 22 04	125 34 82							
		0625	EN				48 22 04	125 34 85							
1	EH Z	1336	BC	MOR		88	47 35 789	124 35 906	47				TJ/DS		ECOHAB MOORING
1	MG1	2319	BC	NET		89	47 42 06	124 59 08	141	120			JE/RR/RF		BONGO
2	WS01	0206	BE	CTD		090	48 03 59	124 47.57	37				JE/RR/RF	✓	T: 12.2 S: 29.8
		0209	BO				48 03 60	124 47.58							
		0209	EN				48 03 61	124 47.59						✓	
2	WS02	0244	BE	CTD		091	48 05.14	124 53.27	63				JE/RR/RF	✓	T: 12.1 S: 30.10
		0246	BO				48 05.17	124 53.27		56					
		0247	EN				48 05 18	124 53.27						✓	

Cast type: BOT = bottle cast, no CTD USW = sea water loop
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28 May 2003
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Date Time PDT

May 1 0730

- on station EH2 former position in 90 m water
- Jim came on board with new position app 4 miles away. 47 36.00 124 38.00
- we are moving to that location to find correct depth. 45 - 46 m.
- surveyed bottom at proposed location - large set of crab traps are on the position.
- moved to slightly deeper water to avoid traps identified a position in 46-47m datum.

- setting up on deck.

1100

- ready on deck - wait until after lunch

1231

- commence deployment flat calm conditions

1336

- launched EH2-C in 47m water at 0.0 tide at position. 47° 35.789' 124° 35.906'

- Not. Ship was immediately issued by ship

NB - the light initially installed on the buoy failed on deck

- installed alternate light + repaired the faulty light - a easy fix

* - this shows we should have a spare light next year.

- stayed on site 5 min observing buoy to ensure it is not adrift.

- head for MGI Bongo and WS line.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month MAY				Year 2005			Ship TULLY				Cruise ID 2005-08				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
2	WS03	0323	BE	CTD		092	48 06 67	124 59 36	273				HM/LL/LP	✓	T: 11.52 S: 30.77
		0328	BO				48 06 68	124 59 34		265					
		0331	EN				48 06 69	124 59 40							
2	WS04	0407	BE	CTD		093	48 08 13	125 05 18	205				HM/LL/LP	✓	T: 11.32 S: 30.53
		0412	BO				48 08 16	125 05 19							
		0414	EN				48 08 16	125 05 24							
2	WS05	0455	BE	CTD		094	48 09 80	125 11 12	289				HM/LL/LP	✓	T: 11.61 S: 30.44
		0500	BO				48 09 80	125 11 17		280					
		0503	EN				48 09 81	125 11 19							
2	WS06	0540	BE	CTD		095	48 11 26	125 17 12	198				HM/LL/LP	✓	T: 11.60 S: 30.90
		0544	BO				48 11 24	125 17 14		190					
		0547	EN				48 11 22	125 17 15							
2	C3	0722	BE	NET		096	48 23.49	125 20.89	122	105			JE/RR/RF		BONGO
2	C1	0818	BE	NET		097	48 28.93	125 15.30	152	140			JE/RR/RF		BONGO

Cast type: BOT = bottle cast, no CTD
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DRF = drifter

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DAILY LOG

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Month MAY				Year 2005			Ship TULLY				Cruise ID 2005-08				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
2	C2	0913	BE	NET		098	48 25.37	125 07.79	128	113			JE/RR/RF		BONAO
2	E1	1028	BE	NET		099	48 31.81	125 03.98	117	102			JE/RR/RF		
2	EH1-C	0954 PDT		MOR		100	48 29.331	124° 41.974	255m	—			TJ, DS L.L.		
2	EH3-C	1500 PDT		MOR		101	48° 17.771'	125° 27.280'	127m						
3	LC01	0131	BE	CTD		102	48 50.46	125 27.76	96				RR/SE/RF	✓	T:11.3 S:30.1
		0133	BO				48 50.46	125 27.78		90					
		0135	EN				48 50.47	125 27.79						✓	
3	LC02	0208	BE	ROS		103	48 48.66	125 30.88	109		145-151	7	RR/TE/RF	✓	T:11.05 S:30.1
		0211	BO				48 48.67	125 30.93		100					
		0218	EN				48 48.68	125 30.99						✓	
3	LC03	0246	BE	CTD		104	48 46.903	125 34.25	139				RR/TE/RF	✓	T:12.2 S:29.5
		0249	BO				48 46.92	125 34.25		130					
		0252	EN				48 46.92	125 34.25						✓	

Date Time PDT

May 2

0600

- on station EH1-C for deployment.
- setting up on deck before breakfast.
- flat calm - drizzly.

- set up until 0700 and break for breakfast. and finish afterward.

0835

- start launch of EH1-C

0954

- deployed EH1-C at position $48^{\circ}29.331$ $124^{\circ}41.974$ Lab.
in 256 m water - less 1.56 m tide = 254.44 m datum.

- noted buoy riding well. - lots of reserve with added Scotsman float.
- Not Ship issued right away - positioned it to make sure it is not adrift.
- head for EH3 for deployment. - setting up on the way.

1401

- start deployment EH3-C

1500

- launched EH3-C in 126.5 m water 0 tide.
at position $48^{\circ}17.771$ $125^{\circ}27.280'$
- stayed position it to make sure it is not adrift.
- issued Not. Ship

1515

- head for LC Line CTD's

DAILY LOG

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Month MAY				Year 2005				Ship TULLY				Cruise ID 2005-08			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
3	LC04	0335	BE	ROS		105	48 43 38	125 40 84	166		152-160	9	HM/LL/LP	✓	T: 12.00 S: 30.20
		0338	BO				48 43 42	125 40 83							
		0348	EN				48 43 55	125 40 86							
3	LC05	0435	BE	ROS		106	48 39 99	125 47 41	65		161-166	6	HM/LL/LP	✓	T: 11.93 S: 31.16
		0436	BO				48 39 97	125 47 41		60					
		0443	EN				48 39 94	125 47 39							
3	LC05	0503	BE	NET		107	48 39.99	125 47 37	65	55			HM/LL/LP		BONGO
3	LC06	0555	BE	NET		108	48 36 48	125 53 80	90	80			HM/LL/LP		BONGO
3	LC06	0606	BE	CTD		109	48 36 45	125 53 94					HM/LL/LP	✓	T: 11.92 S: 31.51
		0608	BO				48 36 43	125 53 93							saved as 108 on disk
		0609	EN				48 36 42	125 53 92							
3	LC07	0649	BE	ROS		110	48 32.95	126 00.49	128		167-174	8	HM/LL/LP	✓	T: 11.6 S: 31.6
		0652	BO				48 32.98	126 00.48		125			+		
		0659	EN				48 32.99	126 00.47					JE/KR/RE		

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DAILY LOG

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Month MAY				Year 2005			Ship TULL				Cruise ID 2005-08				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
3	LC08	0741	BC	ROS	US	111	48 29.45	126 07.12	201		175-185	11	JE/RR/RF	✓	T: 11.6 S: 31.91
		0746	BO				48 29.47	126 07.13		197					
			EN												
3	LC09	0811	BC	NET		112	48 29.42	126 07.05	200	150			JE/RR/RF		BONGO
3	LC09	0900	BE	NET		113	48 25.93	126 13.27	607	150			JE/RR/RF		BONGO
3	LC09	0923	BE	CTD		114	48 25.94	126 13.68	610		9 bottles taken @ 500m for		✓		T: 11.6 S: 31.74
		0934	BO				48 25.91	126 13.63		600	salinity calibration				
		0944	EN				48 25.87	126 13.62						✓	
3	LC10	1032	BE	ROS	US	115	48 22.40	126 20.22	1252		186-203	18	JE/RR/RF	✓	T: 11.0 S: 32.26
		1054	BO				48 22.40	126 20.19		1245					
		1124	EN				48 22.38	126 19.98						✓	
3	LC11	1201		CTD		116	48 18.96	126 26.72	1490				RR/JE/RF	✓	T: 11.4 S: 32.2
		1237					48 18.91	126 26.575		1480					12 meters to bottom
		1253					48 18.89	126 26.446						✓	
															Raw data backed up to CD

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Date Time PDT

- May 3 0730 - on station AI-00 for deployment
 - setting up on deck - lots of instrument assembly required with 2 ADCP frames
- 1056 - start deployment
 1120 PDT - launched AI-00 in 501 m water with 2 m tide (Banfield) on position $48^{\circ}31.757'$ $126^{\circ}12.157'$
- 1130 - delayed deployment of B101 to drop Jim Johnson, Keith Magness and Luc Legault off in Totino to catch Express bus to Victoria 1500hrs
 - ship travelled to ODAS buoy and shore party dropped off by 733
 - ODAS buoy nearly submerged by weight of Sea Lions resting on it. they even climbed to second deck holding the light. app. 20 animals around + on ODAS buoy
 - conditions are flat calm
- 1515 - small boat returned and we head for B101 - mooring ready on deck in the meantime
- 1756 - didn't make before supper - traffic over mooring site
 - launched mooring B101-H in 393 m depth at position: $48^{\circ}31.831'$ $126^{\circ}11.257'$
 - head for LG-Line CTD's.

DAILY LOG

Ocean Sciences and Productivity Division

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Month <i>May</i>				Year <i>2005</i>			Ship <i>Tully</i>				Cruise ID <i>2005-08</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
3	A1-00	1120	PDT	MOR		117	48°31.757'	126°12.157'	501m				T/D.S. L.L.I.		
3	B101-H	1756	PDT	MOR		118	48°31.831'	126°11.257'	393m						
4	LG07	0529	BE	ROS	US	119	48 59 41	127 07 27	1770		204-222	19	Hh/LP	✓	T: 11.78 S: 31.71
		0557	BO				48 59 39	127 07 25		1760					
		0634	EN				48 59 33	127 07 26							
4	LG06	0717	BE	CTD		120	49 03 49	127 01.16	970			—	JE/RR/RF	✓	T: 11.9 S: 31.13
		0734	BO				49 03.52	127 01.17		962					T _{inversion} @ 170m
		0746	EN				49 03.54	127 01.23						✓	
4	LG05	0830	BE	ROS	US	121	49.07.36	126 55.31	277		223-234	12	RR/JE/RF	✓	T: 11.7 S: 30.6
		0836	BO				49 07.36	126 55.33		270					
		0848	EN				49 07.37	126 55.39						✓	
4	LG04	0931	BE	ROS	US	122	49 11.28	126 49.30	146		235-243	9	JE/RR/RF	✓	T: 11.8 S: 31.00
		0935	BO				49 11.29	126 49.26		138					
		0945	EN				49 11.28	126 49.34						✓	

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[illegible]

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Date Time PDT

- May 4 0600 - on station E03-NN for recovery.
 - ranges 395, 396, 396
 - moving off to a release position
 - ranges 671, 674
- 0611 - sent BDEH
- 0613 - sighted on surface
 - cleaning up
- 0700 - break for breakfast - we are heading for E01-NN
- 0838 - on station E01-NN for recovery
 - range 133, 139, 139
 - moving off for release app. 1 1/2 cable
 - ranges 274, 275, 275
- 0845 - sent ACFT received positive response.
 - sighted on surface.
 - heavy growth - but not enough to impede rotors
 - cleaning up on deck
- 1000 - head in to Nootka to transfer 2 cadets to Tanu
- 1254 - deployed E01-00 in 100m water at .89m tide datum = 99m
 at 49° 17.536' 126° 35.912'
- head for Knight Inlet. ETA Morning May 5

Date Time PDT

Additional comments

May 5

0730

- heading for Knight Inlet moorings setting up on deck.

0845

- launched TCS-01 at position $50^{\circ}43.178'$
 $126^{\circ}12.025'$
in 202 m water @ 1m tide datum = 201 m.

- head for KIW mooring.

1008

- launched KIW-01 at position $50^{\circ}39.384'$
 $126^{\circ}09.869'$
in 182 m water @ 2m tide datum = 180 m.

- head for I.O.S. - ETA May 6 afternoon

- checked vehicle reservations for off loading

- packing up en route.