

DAILY LOG BOOK

MISSION
NUMBER

2004-07

DATE:

From: Apr. 26 to: May 8, 2004

VESSEL:

CCGS J. P. Tully

PROJECT:

La Perouse, Covariability, ECOHAB, GVRD
Juan de Fuca, Georgia Strait.

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

Date Time PDT 2004

Apr. 26 1300 - loading commences with winches installed.
 - science equipment loaded 1400-1900.
 2000 - we sail from I.O.S. for Jervis Inlet mooring.
 2200 - we set up thermosalinograph with some difficulty.

Apr. 27 0756 - on station S101-CV-E for recovery 424
 - drifting on 404, 398.

0802 - moved to release position range = 389 m.
 - sent BDFG received positive response

0805 - mooring completely on surface

0845 - head for CPF1 bongo

1300 - completed fire + boat drill approaching SG01-CV-E.

1333 - on site range 411 m SG03-CV-E for recovery

1337 - moved to release position range 525 m, 531
 - sent BCFG received positive response

1339 - sighted on surface.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month APRIL				Year 2004				Ship TULLY				Cruise ID 2004-7			
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	CPF1	1555	BE	NET		001	49 22 01	124 05 06	243	230					BWGO / CoPRA Tow
28	G105	0300	BE	CTD		002	49 17.374	123 29.802	175			/	HM/I.B.		CTD ONLY
			BO				49 17.391	123 29.868							
		0313	EN												
28	N107	0312	BE	CTD		003	49 22.543	123 32.734	134					✓	CTD
			BO				49 22.537	123 32.699	60	51	-				WIND BEGINNING
		0316	EN				49 22.537	123 32.701							TO DIE DOWN 35 KTS
28	N106	0348		CTD		004	49 21.343	123 34.902	170	170					- trans, still flaky
		0353					49 21.328	123 34.813							
		0356					49 21.356	123 34.862							
28	N105			CTD		005			264						** see next page
		0438					49 19.547	123 38.503		251					
		0442					49 19.560	123 38.579							
28	N104			CTD		006									
		0549					49 17.792	123 42.251	295	285					
		0555					49 17.801	123 42.215							*** see next page
28	N103	0724		ROS		007	49 16.049	123 45.694	410						
		0752					49 16.019	123 45.544		400	1-2	2			
		0740	0749	**			49 16.148	123 45.404							

Cast type:

BOT = bottle cast, no CTD

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DRF = drifter

bottle firing method:

US = up / stop

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

28 May 2003

Daily_log_book.doc

Date Time PDT

Apr 27 1430 - SG03-CU-E recovered and heading for GURDI-A
for recovery ETA 1600 hrs.

- increasing wind and sea

1400

- arrive GURDI-A for recovery.

- winds gusting 70 steady 50 NW seas 2-3m

- mooring ops cancelled by Chief Scientist.

- hope conditions drop sufficient for CTD's later in evening.
hove-to near next CTD station G105

** switched oxy/trans y cable for single trans cable: transmissometer worked but was fed through the oxygen voltage

SAR - false alarm - almost immediately stood down within 30 min. or so.

** transmissometer cable (single ended) was placed in channel 6
y cable reinserted and used for oxygen only. Dummied "trans side". ∴ oxygen = volt 2
trans = volt 6

*** TIME STAMP FROM NMEA WAS 7 MINUTES SLOW AND SHOW A DATE OF 14 FEB 2001
LAT/LONG WERE GOOD.

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							Latitude	Longitude							
28	N102	0720	BE	CTD		008	49 14 62	123 48 650	319			0			* → OVER
		0727	BO				49 14 64	123 48 62		300					
		07	EN				49 14	123 48							
28	N101	0809	BE	CTD		009	49 13 37	123 51 25	117						* → OVER
		0811	BO				49 13 37	123 51 26		100					
		0813	EN				49 13 37	123 51 26							
28	G104	0907	BE	ROS		010	49 12 74	123 40 11	390			1			SAL @ 375
		0913	BO				49 12 72	123 40 18		375	3				* NO TRANSMISSOMETER
		0919	EN				49 12 68	123 40 25							
28	G103	1006	BE	ROS		011	49 10 39	123 33 47	375			1			SAL @ 362
		1010	BO				49 10 41	123 33 54		362	4				* NO TRANSMISSOMETER
		1017	EN				49 10 35	123 33 48							

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N102 - TRANSMISSOMETER STARTED @ 200m AND WORKED THE REST OF THE DOWN & UP CAST

N101 - TRANSMISSOMETER NOT WORKING AT ALL

G104 - NO TRANSMISSOMETER DATA - INSTRUMENT FAILURE ?

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29	G106	0240	BE	CTD		012	49 12 03	123 23 61	272			✓		✓	
		0245	BO				49 12 00	123 23 51		250					
		0250	EN				49 11 99	123 23 43							
29	V105	03:28	BE	CTD		013	49°11.554	123 17 96	69			✓			
		0331	BO				49 11.573	123 17 939		60					
		0332	EN				49 11 585	123 17 923							
29	V104		BE	CTD		014	49 8.808	123 23 274	184			✓			
		04:18	BO				49 8.843	123 23.221		171.01					
		04:22	EN				49.8.903	123.23.142							
29	V103	05:22	BE	ROS		015	49.5.936	123 28.927	340			1			
		0530	BO				49.5.81	123.28.795		338	5	1			Sal @ 338
		0536	EN				49.5.711	123.28.733							

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Date Time PDT

Apr. 28 0746

- on station GURD1-A for recovery.

- 134 m range. 131 m

- move to release position

0753

- stopped.

- range 270, 264 sent B540 "received" "executed"

- sighted on surface almost immediately.

0936

- on station GURD2-A for recovery

- ranges 245, 247

- moving off to release position

- range 289, 311

0940

- sent B520 "received" "executed"

0942

- sighted on surface

- giving reducing ranges but incorrect almost a factor of 2 times.

1030

- on site B102 for recovery

- range 260, 261, 262

- move to release position

- sent ACDE received positive response

- sighted on surface

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							Latitude	Longitude							
29	VIO 2	0610	BE	CTD		016	49.4.453	123.32.131	266			✓			
		0616	BO				49.4.474	123.32.185		250					
		0620	EN				49.4.507	123.32.207							
29	VIO 1	656	BE	CTD		017	49.2.916	123.35.311	128			✓			
		659	BO				49.2.932	123.35.330		120					
		703	EN				49.2.953	123.35.315							
29	GI 02	0805	BE	CTD		018	49.02.66	123.23.29	267			✓			? OXY LEVEL DROPS
		0811	BO				49.02.65	123.23.28							10m FROM BOTTOM
		0815	EN				49.02.66	123.23.26							METHANE HOLE?
29	GI 01	0922	BE	CTD		019	48.58.55	123.16.84				✓			
		0925	BO				48.58.52	123.16.87							
		0929	EN				48.58.51	123.16.90							
29	MI 01	2152	BE	CTD		020	48.52.367	123.14.58	150			✓			
		2155					48.52.367	123.14.518		141					
		2158					48.52.375	123.14.500							

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Date Time PDT

Apr. 28 1858 - launched GURDI-B in 100 m water
at position $49^{\circ} 13.554'$ $123^{\circ} 17.946'$
- proceed to CTD's on GF and VI stations.

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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							
29	M102	2222		CTD		21	48 53.776	123 12.619	143						CALM, CLEAR,
		2224					48 53.788	123 12.620		137					SUNNY DAY.
		2226					48 53.793	123 12.628							
29	M103	2310	BE	CTD		022	48 55 21	123 10 76	123			/			
		2313	BO				48 55 19	123 10.79		115					
		2315	EN				48 55.17	123 10.80							
29	M104	2334	BE	CTD		023	48 56.09	123 09.55	119			/			
		2336	BO				48 56.10	123 09.55		110					
		2339	EN				48 56.10	123 09.56							
30	M105	0003	BE	CTD		024	48 57.02	123 08.27	112			/			
		0006	BO				48 57.03	123 08.24		105					
		0008	EN				48 57.03	123 08.22							
30	M106	0117	BE	CTD		025	48 57.96	123 07.02	126						
		0120	BO				48 57.95	123 07.04							
		0122	EN				48 57.94	123 07.05							

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Date Time PDT

Apr. 29 0800 - on station B102 for deployment setting up mooring.

0920 - deployed B102-F in 276 m water on position:
49° 00.450' 123° 23.152'

- head for GVRD2 + setting up.

1123 - deployed GVRD2-B in 242 m water on position:
49° 03.580' 123° 22.316'

1250 - on station SG02-CV-E for recovery.

- range 313 m 295 m range.

1253 - sent ACEH received positive response
- sighted on surface.

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							Latitude	Longitude							
30	M107	0142	BE	CTD		026	48 58.85	123 05.78	34						
		0144	BO				48 58.85	123 05.80		30					
		0145	EN				48 58.85	123 05.81							
30	S108	0238	BE	CTD		027	48 56.46	122 58.78	43						SOUNDER (SIRRO)
		0239	BO				48 56.45	122 58.74		35					GIVE FUNKY
		0240	EN				48 56.45	122 58.72							FIXED
30	S107	0306	BE	CTD		028	48 55 520	123 0 104	129						
		0309	BO				48 55 524	123 0 130		121					
		0311	EN				48 55 544	123 0 134							
30	S106	0340	BE	CTD		029	48 54 529	123 1 340	151						CTD / ROSETTE
		0343	BO				48 54 534	123 1 367		141					DROPPED ON DECK BY NINCH OPERATOR
		0346	EN				48 54 509	123 1 397							
															→ Changed cables, can fix. → *

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* Changed Transmissometer, Fluorometer and Oxy Cables

Changed 0585cd.doc to reflect the addition of an altimeter to aux channel V6, and the following sensors configuration

V0 - Fluorometer s/n 2229

V1 - Free

V2 - Transmissometer s/n 3330R

V3 - Free

V4 - Oxy s/n 0047

V5 - Free

V6 - Altimeter s/n 1024

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							Latitude	Longitude							
30	SI05	0410	BE	CTD		030	48 53 729	123 2 639	162			/			
		0414	BO				48 53 779	123 2 651		149					
		0417	EN				48 53 831	123 2 652							
30	SI04	0443	BE	CTD		031	48 52 824	123 3 812	156			/			
		0446	BO				48 52 825	123 3 858		150					
		0449	EN				48 52 826	123 3 895							
30	SI03	0509	BE	CTD		032	48 51 842	123 5 072	159			/			
		0511	BO				48 51 836	123 5 096		151					
		0514	EN				48 51 830	123 5 112							
30	SI02	0547	BE	ROS		033	48 50 493	123 6 824	216			1			Sal @
		0551	BO				48 50 443	123 6 774		210	6				
		0555	EN				48 50 446	123 6 733							

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							Latitude	Longitude							
30	SEA	0624	BE	CTD		034	48 49 16S	123 8 746	115			/			
		0627	BO				48 49 184	123 8 737		110					
		0630	EN				48 49 188	123 8 717							
30	D06A	0744	BE	ROS		035	48 45 98	123 02 35	232						FIRCD 2 BOTTLES
		07	BO				48 45.	123 02.		225	7-8	2	SALD 225		DIDN'T REGISTER ON
		0754	EN	.			48 45.97	123 02. 31							SCREEN BUT SLOWER 2 FIRE
30	D07A	0841	BE	CTD		036	48 44.06	123 08 21	160			/			
		0844	BO				48 44.01	123 08.21		150					
		0847	EN				48 44.00	123 08. 22							
30	D08A	0953	BE	CTD		037	48 42.19	123 15.14	360						
		0959	BO				48 42.22	123 15. 21		350	9	1 ?			
		1006	EN				48 42.27	123 15. 25							

Vemco Mooring SGO1 - SGO2

Note: The Vemco sensors on mooring SGO1-CU-F have been initialized with a
* mooring designation of SGO2-CU-F Serial # 6526 - 6547 30 APRIL 2004

The sensors 6548 - 6569 have been reprogrammed for the correct
mooring information SGO2-CU-F-PDT and are delayed until start 11:00 PDT
30 APRIL 2004

Date Time PDT

Apr. 30 0800 - on station SGO2-CU-F for deployment.
- deployed SGO2-CU-F at $49^{\circ} 01.477'$ $123^{\circ} 23.872'$
in 271 m water with 2.6m tide.

Done.



1215 - on station SGO1-CU-E for recovery.

- range 341, 345

- moved to release position

- range 418

- porpoises playing in area.

1222 - sent ADGH received positive

1223 - sighted on surface

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							Latitude	Longitude							
2	LA01	20:33	BE	ROS		38	48 29.15	124 43.69	266						
		20:40	BO				48 29.10	124 43.80		260	10-22	13	DA		LOOP2 SAL ONLY
		20:58	EN				48 28.89	124 43.90							5 m bottle also triggered
2	LA02	21:50	BE	ROS		39	48 26.22	124 51.44	308						
		21:59	BO				48 26.15	124 51.51		300	23-36	14	DA	✓	Loop 3 - SAL only
		22:16	EN				48 26.02	124 51.59							
2	E1	23:25	BE	NET		40	48 31.69	125 03.86	117	110	—	—	H.M/I.B.		BONGO
3	C2	00:37	BE	NET		41	48 25.37	125 07.79	130	120	—	—	H.M/I.B.		BONGO
3	LA03	01:49	BE	CTD		42	48 22.79	124 58.17	110			—			CTD ONLY
		01:52	BO				48 22.77	124 58.30		100					
		01:54	EN				48 22.77	124 58.38							
3	LA 04	02:39	BE	ROS		43	48 19.37	125 04.09			37-47				
		02:43	BO				48 19.37	125 04.11							
		02:57	EN				48 19.38	125 04.13							

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Apr. 30 1649 - launched mooring SG01-CV-F in 302 m (corrected) (draft+tide)
depth at position:

48° 43.203'
123° 13.536'

* Note Vector
set up from previous
page.

1701 - head for L.O.S.

± 1800 - tie up at L.O.S.

May 1 0830 - cross loading from Vector. / from L.O.S. / and UW equipment.
- Bill + Nick from UW arrived Apr. 30 and set up equipment
- Jim Johnson arrived app. 1400
- Jo Poole completed buoy (UW toroid) service + paint

1600 - all loaded

1630 - depart for AS04.

2002 - on station AS04 for confirmation sending 8221 to enable #848

- 114, 115, 114, 116, 117, 117

on FR1

- got "received" + "executed" on each range two times

- drifting off. 123 → 128 sent 8222 to disable #848 - 135, 138 ranges

on disable command.

2019

- waited 10 min. to see if anything surfaces - also monitored Argos - both negative. - proceeded.

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							Latitude	Longitude							
3	LA05	0341	BE	CTD		44	48 16 044	125 10 693	122						
		0344	BO				48 16 031	125 10 734		112					
		0347	EN				48 16 019	125 10 816							
3	LA06	0436	BE	ROS		45	48 12 617	125 17 156	114		48-56	9			Loop sample 4
		0439	BO				48 12 635	125 17 154		105					
		0449	EN				48 12 611	125 17 184							
3	LA07	0545	BE	CTD		46	48 9 203	125 23 815	115						
		0548	BO				48 9 194	125 23 818		110					
		0551	EN				48 9 185	125 23 810							
3	LA08	0640	BE	CTD		47	48 5 792	125 30 346	142						
		0643	BO				48 5 784	125 30 282		132					
		0647	EN				48 5 772	125 30 220							

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Date Time PDT

Date	Time	PDT
May 2	0743	- on station JFRC-CV-D2 for recovery. - 645 m range 657 m range
	0800	- moved on top of mooring range 189, 185 right on top - moved to release position 252, 254 m - sent ABEH received positive response
	0804	- sent ABEH again received release confirmation again
	0807	- sent ABEH again " " " " " " } not surfacing
	0813	- moved back on position range 185 m 184 m - still in place.
	0818	- moved to release position sent ABEH received confirmation 230 - 232 232 242 230 241 233 not rising - sent ABEF - release not responding - sent ABEF again " "
	0823	range 254 256 251 260 - range 241, 242, 243, 241, 228, 232, 234, 228, 226, 233, 226 226, 231 not rising - sent ABEF received positive response <u>very faint</u> only heard with generator mode off
	0827	- sent ABEH again got positive response } both releases are free. - range 200, 196, 196, 199 - sent CDFG - sent ABEH - sent ABEF - both give positive response. - sighted on surface app. 40 m to port.

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								
3	LA09	0745	BE	ROS		48	48 02 38	125 36 86	363		57-70	14	H.M./I.B.		Loop 5	
		0751	BO				48 02 34	125 36 84		342						
		0808	EN				48 02 43	125 36 94								
3	LA 10	0858	BE	ROS		49	47 59.07	125 43.47	943		71-88	18	H.M./I.B.		Loop 6	
		0910	BO				47 59 06	125 43 45								
		0944	EN				47 59 00	125 43 46								
4	KG 1	0422	BE	NET		50	47 42.07	124 59.83	150	140		—	H.M./D.A.		BINGO FOR MOIRA	
4	LB 14	0838	BE	ROS		51	48 08.51	125 59.98	1181		89-106	18	H.M./I.B.		Loop 7	
		0852	BO				48 08.47	126 00.01		1175						
		0922	EN				48 08.52	126 00.11								
4	LB 12	1016	BE	CTD		52	48 12.94	125 51.96	514		—	—	H.M./I.B.		CTD ONLY	
		1022	BO				48 12 94	125 51 99								
		1028	EN				48 12 93	125 51 91								

Cast type:

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28 May 2003
 Daily_log_book.doc

Date Time PDT

May 2

0857

- approaching JF2B-CV-D for recovery

0900

- app 100 m off station

- range 217 m, 219, 220 m

0901

- sent BEGH - received confirmation

0902

- sighted on surface

1011

- on station JF2E-CV-D for recovery

- range 310 312 m

- sent ACFH received confirmation

1013

- sighted on surface

- head off for LA Line CTD's

- intend to search for and recover the drifting E03 mooring

- asked for more frequent position updates from Mike Dempsey of O19L and the ROC

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							
4	LB 10	1140	BE	ROS		53	48 18 55	125 41 18	154		107-116	10	HM/1.B		Loop 8
		1143	BO				48 18 54	125 41 21							
		1153	EN				48 18 51	125 41 34							
4	LB 8	1309	BE	ROS		54	48 25 25	125 28 67	140		117-126	10	HM/1.B		Loop 9
		1312	BO				48 25 27	125 28 71		130					
		1322	EN				48 25 32	125 28 80							
4	LOOP 10	1930		LOOP			48 25.64	125 51.46					DA		Loop 10
5	LC 11	0152	BE	CTD		55	48 18 95	126 26 67	1450				HM/1.B	✓	CTD ONLY
		0211	BO				48 18 95	126 26 69		1465	127	1			SAL @ 1465
		0227	EN				48 18 96	126 26 71							
5	LC 10	0316	BE	ROS		56	48 22 39	126 20 18	1250		128-145	18	LP/DA		Loop 11
		0332	BO				48 22 41	126 20 27		1240					
		0408	EN				48 22 35	126 20 24							
5	LC 01	0501	BE	CTD		57	48 25.90	126 13.66	611		—	—	LP/DA		
		0509	BO				48 25.92	126 13.65		606					
		0517	EN				48 25.91	126 13.62							

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28 May 2003
Daily_log_book.doc

Date Time PDT

May 3

0749

- LA line complete.

- along side E03

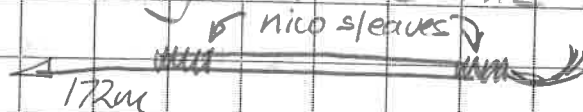
- appears to be top buoy, top glass ball group with Witness Buoy and middle buoy (bottom of mooring missing on still on site)

47° 56.81'

126° 00.940'

- got back RCM4's #6176 #3501 and #5094 and all associated hardware

- the line was abraded through above the thimble at the bottom of the 172 m line.



thimble missing + wire cut through.

1802-1908

- deployed FH2 UW mooring at 47° 36.028' 124° 46.081' in 90.6 m water.

- Nat. Ship sent in.

- on deployment the mast was broken when the buoy was lifted without slacking off guy-lines on the mast.

- we switched to the alternate buoy set up for U.S. waters and the engineer department effected a repair of the broken mast by replacing the bent piping with steel tubing slid inside the aluminum piping and bolted.

2030

- completed Bongo for Moira Galbraith app. 11 miles NNW of FH2 in 149 m water.

- head for LB Line. CTD's

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

DAILY LOG				Ocean Sciences and Productivity Division					Cruise ID 2004-07						
Month May				Year 2004			Ship Tully		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position								
							Latitude	Longitude							
05	LC09	0631	BE	NET		58	48 25 90	126 13 72	612	250	1		LP/DA		
05	LC08	0656	BE	ROS		59	48 29 41	126 07 10	203	180	146-157	12	HM/IB		
		0700	BO				48 29 41	126 07 12		192					
		0715	EN				48 29 40	126 07 14							
5	LC07	0800	BE	CTD		060	48 32 91	126 00 45	136				HM/IB		CTD ONLY
		0803	BO				48 32 90	126 00 49		123					
		0804	EN				48 32 90	126 00 51							
5	LC06	0850	BE	ROS		061	48 36 44	125 54 03			158-165	8	HM/IB		LOOP 12
		0852	BO				48 36 43	125 54 04							
		0900	EN				48 36 41	125 54 09							
	LC06	0925	BE	NET		062	48 36 48	125 53 88					HM/IB		BONGO
5	LC05	1015	BE	NET		063	48 39 89	125 47 43							BONGO
5	LC5	1031	BE	CTD		064	48 39 97	125 47 31	65						CTD ONLY
		1032	BO				48 39 98	125 47 30		56					
		1033	EN				48 39 99	125 47 29							
5	LC4	1122	BE	ROS		065	48 43 39	125 40 78	168		166-176	11	HM/IB		Loop 13
		1125	BO				48 43 39	125 40 71		158					
		1135	EN				48 43 36	125 40 57							
5	LOOP 14	2103					48 46 20	126 21 84							LOOP 14 SAL ONLY

28 May 2003

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28 May 2003
Daily_log_book.doc

Date Time PDT

- | Date | Time | PDT |
|-------|------|--|
| May 4 | 0800 | - on station EH3 for deployment. |
| | 1035 | - deployed mooring EH3 in 130 m less 1.5 m tide = 128.5 m
depth at. $48^{\circ} 17.824'$ $125^{\circ} 27.549'$ |
| | | - head for A1 |
| | 1352 | - approaching A1-LL for recovery |
| | 1357 | - on station A1-LL
- range 469, 477, 476, 475 moving to release position. |
| | 1401 | - at release position, 498 m.
- sent ABGH. received confirmation range 440, 408, 402 rising.
- sighted on surface.
- recovered without problem cleaned up + set up. |
| | 1655 | - deployed A1-MM in 502 m water on position.
$48^{\circ} 31.733'$ $126^{\circ} 12.134'$ |
| | | - head for LC line for CTD's. |

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>May</i>			Year <i>2004</i>				Ship <i>Tully</i>			Cruise ID <i>2004-07</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							
06	LG08	0501	BE	ROS		66	48 55.27	127 13.44	2075		177-196	20			
		0531	BO				48 55.29	127 13.58		2070			LP/DA		
		0621	EN				48 55.37	127 13.48							
6	LG06	0739	BE	ROS		67	49 03.50	127 01.19	968		197-215	19	HM/IB	✓	Loop 15
		0751	BO				49 03.52	127 01.24		968					2 bot @ 600m
		0819	EN				49 03.47	127 01.11							
6	LG05	0901	BE	CTD		68	49 07.39	126 55.31	280		—	—	HM/IB		CTD ONLY
		0904	BO				49 07.39	126 55.32		269					
		0910	EN				49 07.36	126 55.32							
6	LG04	0951	BE	ROS		69	49 11.25	126 49.39	148		216-225	10	HM/IB		Loop 16
		0954	BO				49 11.21	126 49.41		138					
		1004	EN				49 11.17	126 49.44							
6	LG03	1043	BE	CTD		70	49 14.93	126 43.70	125		—	—	HM/IB		CTD ONLY
		1045	BO				49 14.97	126 43.70		118					
		1047	EN				49 14.96	126 43.69							

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

28 May 2003
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Date Time PDT

May 5

0746

- on station B101-E for recovery.

0750

- range 381, 383

- move off for release position

0755

- range 445, 450

- sent ADEF received confirmation

0757

- sighted on surface

- recovered without incident.

- head for PATC2-A mooring

0952

- on station PATC2-A for recovery.

- range 464 m, 460 m moved to release position

0958

- range 530, 532

- sent ABEG received confirmation X 2

- ranges 524, 509, 503, 493, 496, 493, 492, 489, 301, 427, 428, 425
421, 421, 415, 410, 406, 402, 405, 404, 408, 409, 418

ship moved preparing to launch small boat re: concern for loose keular in prop.

range 473, 472 → 490, 487, 461, 456, 442 ship approaching mooring site
as we wait for it to rise - it is looking like it may be caught up in the
keular

1022

- range 449, 459, 461, sent range 458, 457, 429, 419, 423 we are
very close to it nearly over top - release has released mooring not rising.
422, 424, 424

Set up for drag.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>May</i>				Year <i>2004</i>			Ship <i>Tully</i>		Cruise ID <i>2004-07</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							
6	LOOP17	19:31		LOOP			49 09.61	126 57.04					DA		LOOP 17 CAL ONLY
7	LG 02	0312	BE	ROS		71	49 18 692	126 38 264	101		226-233	8	11/18	✓	Loop 18
		0315	BO				49 18 722	126 38 308		91				←	NET IN HERE LABELLED TO
		0324	EN				49 18 744	126 38 430							
7	LG 01	0426	BE	CTD		72	49.20.464	126.35.122	55						
		0428	BO				49.20.455	126.35.140		46					
		0429	EN				49.20.452	126.35.143							
7	LD04	0803	BE	ROS		73	48 53 24	125 56 92	65		234-239	6			Loop 18
		0805	BO				48 53 23	125 56 94		57					
		0810	EN				48 53 21	125 56 96							
	LD04	0825	BE	NET		74	48 53 20	125 56 99							BONGO
7	LD02	0938	BE	ROS		75	48 58 36	125 47 09	46		240-244	5			Loop 19
		0939	BO				48 58 36	125 47 10		37					
		0943	EN				48 58 34	125 47 13							
		0925	BE	NET		76	48 58 37	125 47 07		35					

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

28 May 2003
 Daily_log_book.doc

Date Time PDT

- | Date | Time | PDT |
|-------|------|--|
| May 5 | 1046 | - set up drag + lower range 489 sent ABEG received confirmation.
range 456, 450 ship manoeuvring. |
| | 1057 | - lower drag to bottom 400m and begin tow
- sent ABEG received confirmation range 445 m |
| | 1223 | - app. 7 cable off site recovered drag - no equipment snagged
nothing sighted on surface
- return to station |
| | 1230 | - back on station range 444, 440, 443
- sent ABEG received confirmation. X 2
- 449 m, 448 m, 449 m, 451 m not rising |
| | 1235 | - set up for another drag. |
| | 1415 | - drag ended unsuccessful
- return to site to confirm it is there. |
| | 1420 | - on site (100m off) sent CDFG x2 sent ABEG received confirmation x2
- ranges 420, 418, 417, 413, 408 m.
- confirmed pinger working.
- sent ABEG 404m range, 402m, 403 mooring not rising.
- sent CDFG range 406 m. mooring confirmed in place will try again!!! |

I'll be back !!!
😊

head for B101

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								
7	LC03	11 11	BE	CTD		77	48 46.95	125 34.31	138		—	—	H ^m /18		CTD ONLY	
		11 13	BO				48 46.97	125 34.35		128						
		11 15	EN				48 46.98	125 34.40								
7	LC01	11 55	BE	ROS		78	48 50 45	125 27 01	98		245-252	8	H ^m /18		LOOP 20	
		11 57	BO				48 50 46	125 27 05		89					ALTIMETER NOT WORKING	
		12 04	EN				48 50 47	125 27 15								
7	LOOP21	23 05:31		LOOP			48 24.98	124 18.35							LOOP 21 - SAL ONLY	
8	JFD7	0245	BE	CTD		79	48 11 82	123 59 90			—	—			CTD	
			BO				48 11 82	123 59 03								
		0250	EN				48 11 82	123 59 03								
8	JFD6	0822	BE	CTD		80	48 13.80	124 00.30	124							
		0826	BO				48 13.77	124 00.02		111						
			EN				48 13.	124 00.								

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28 May 2003
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Date Time PDT.

May 5 1641

- deployed B101-F in 403 m corrected for draft with 2.6 m tide.
= 400 depth (datum) at $48^{\circ} 31.807'$
 $126^{\circ} 11.272'$

- head for LG Line LG08 station. passing over PATC2 mooring site to check if mooring may have come to surface since our failed recovery attempt.
- visual surface check only
- nothing sighted in area and approaching.

May 6, 0744

- on station E01-LL for recovery.
- no ranges - we were standing off too far.
- move directly onto station
- no ranges - faint response at distance
- the bridge was given wrong position by the chief scientist
ie. $126 35.094'$ instead of the correct $126 35.894'$

0758

- moved to correct position

0802

- on station

0806

- range 100, 109, 101 directly on top move to release position.
- range 239 in release position
- sent CDEH received positive confirmation - sighted on surface.

- cleanup.

DAILY LOG

Ocean Sciences and Productivity Division

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							Latitude	Longitude							
8	JFDS	3:59	BE	CTD		81	48°15.6 N	123°51.9 W	183						
		4:02	BO				48°15.84 N	123°59.927 W		171					
		4:05	EN				48°15.841 N	123°59.874 W							
8	JFD4	0435	BE	CTD		82	48 17.75	123 60.00	189						
		0439	BO				48 17.76	124 00.02		180					
		0441	EN				48 17.75	124 00.04							
8	JFD3	0515	BE	CTD		83	48 19.720	124 0 056	166						
		0518	BO				48,19,746	124 0 088		156					
		0520	EN				48 19.760	12 0 116							
8	JFD2	0547	BE	CTD		84	48 21.87	124 00.01	122				LP/DA		
		0550	BO				48 21.90	124 00.01		111					
		0551	EN				48 21.92	124 00.01							
8	JFD1	0612	BE	CTD		85	48 23.08	124 00.10	61						
		0614	BO				48 23.06	124 00.16		51					
		0614	EN				48 23.06	124 00.17							

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28 May 2003

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May 6 1055 - deployed E01-MNA at $49^{\circ} 17.552'$ $126^{\circ} 35.903'$ in 99m water at 0 tide

- head for E03-LL where

AN 1237 - on station E03 - where "Miss Tatum" reported dropping mooring
call it E03 MT1 (dunking)

- no response - tried omnidirectional transducer - no response
tried pinger - no response

MT1 = where it was reported dropped in Apr. 2004.

- move to MT4 $49^{\circ} 10.75'$ $126^{\circ} 57.95'W$

MT3 = where it was reported hit in Apr. 2004.

1320 at MT4 - no response on hull or dunking transducer

MT2 = mid point MT1/MT3

- no pinger

MT6 = where it was reported dropped in Nov. 2003.

- go to MT2

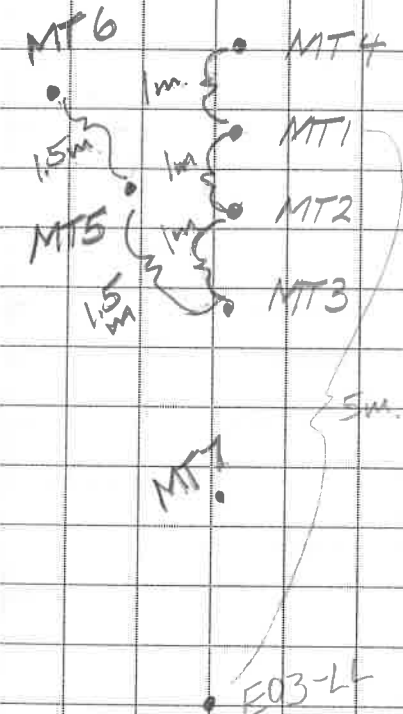
MT5 = mid point MT6/MT3

1358 at MT2 - same no responses, no pinger head to MT3

1410 at MT3 - same no responses, no pinger head to MT5

1438 at MT5 - same no responses, no pinger head to MT6

1456 at MT6 - same no responses, no pinger head to MT7



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							
8	JFE1	7:30	BE	CTD		86	48°27.180	124°14.996	30.75		—	—	HM/1.B.	✓	CTD ONLY
		7:31	BO				48°27.167	124°14.992		21.4					
		7:33	EN				48°27.156	124°14.975							
8	JFE2	7:55	BE	CTD		87	48°25.152	124°14.892	138		—				
		7:58	BO				48°25.156	124°14.884		126.4					
		8:01	EN				48°25.162	124°14.862							
8	JFE3	8:22	BE	CTD		88	48°23.285	124°15.101	186.75		—				
		8:25	BO				48°23.286	124°15.095		178.5					
		8:28	EN				48°23.274	124°15.072							
8	JFE4	8:47	BE	CTD		89	48°21.295	124°15.016	226		—				
		8:50	BO				48°21.294	124°15.023		217.4					
		8:55	EN				48°21.287	124°15.043							
8	JFE5	9:24	BE	CTD		90	48°19.252	124°15.040	214		—				
		9:27	BO				48°19.262	124°15.038		206					
		9:30	EN				48°19.273	124°15.046							

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28 May 2003

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Date Time PDT.

May 6

- 1530

on station MIT7

- no responses, no pinger head for E03-LL site

- 1550

on station E03-LL

- no responses, no pinger - further search will have to be at another time i.e. Sep. cruise

- prepare E03-MM for deployment.

- 1811

- launched mooring E03-MM at position $49^{\circ} 05.697'$
 $126^{\circ} 56.060'$

402 m on sounder corrected for draft with 2.6 m tide
datum = 399.4 m

- head to finish LG Line LG02 - LG01 stations then heading south.
on LD and LC Lines

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

[illegible]

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up / stop
UN = up / no stop
DN = down / no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end time of cast

DE = deployment time
MR = messenger release time
RE = recover mooring time

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

28 May 2003
Daily_log_book.doc

* 1 owe ship CD's, Video tapes, 36" Scotsman buoy.

Date Time PDT

- May 7 0830 - on station EHI for deployment - set up mooring calm conditions
- 1047 - deployed mooring EHI-B in 256 m depth at position
48° 29.275' 124° 41.978'
- noted that the buoy was riding too low nearly submerging in low swell. It was trailing a large wake. Checking tides indicated we had strong spring tides flowing at 2.3 knots. We were at peak ebb with at - 0.1 tide. In short the buoy was riding too low and could not be left as it was. Options were:
 - reduce weight below buoy
 - increase scope
 - increase buoyancy.
 - we consulted with both Rick Thomson and Barbara Hickey
 - they both wished the mooring to remain deployed based on the very high current only happens for a small percentage of the time
 - we checked spring tides happened for 3 days in both June + July, indeed slightly higher than what we were experiencing at this time
 - the ships opinion was that this buoy would be a hazard to navigation.
 - the mooring is same as last year, the buoy apparently was also same, but performed better. It could be the buoy took on water over the deployment last year.
 - I decided to recover mooring by releasing the anchor.
 - recovery was completed without incident we have a spare anchor but not surge chain.

Date Time PDT

May 7

- further EHI
- I arrange for Jo Poole to cut up surge chain and deliver to Port Renfrew
- we launch the 733 to pick this up while the ship continues to work
- the proposed solutions are :
 - remove ballast chain in line in mooring and add it to surge chain reducing weight on buoy by 300 lbs and increasing scope by 5m.
 - we will add more chain to length scope.
 - we will inflate a 36" scotsman float inside the tripod of the toroid buoy which will add 350 kg. of buoyancy.
- head for JF2B mooring for deployment.

1654 - deployed JF2B-CV-E in 166m water at position $48^{\circ}22.924'$
(2m tide included) = 164m datum $124^{\circ}11.071'$
- 8 vemco's were added to mooring

1851 - deployed JF2E-CV-E in 152m water at position $48^{\circ}15.154'$ $124^{\circ}09.803'$
(1.5m tide included) = 150.5m datum
- 733 came back with new surge chain.
- head for JFD Line for CTD's

Date Time PDT

* Steve has one RDI 2275 SGO1 file and we have no back up.

May 8 0738 - on station EHI for deployment. setting up

0848 → 0925 - deployed EHI-B $48^{\circ}29.316'$ $124^{\circ}41.960'$

0927 ← 256 on sounder (draft corrected)
@ -0.43 tide = 255.5 datum

1251 - deployed JF2C-CV-E in 184 m @ $48^{\circ}21.531'$ $124^{\circ}12.837'$

- head for I.O.S. bucking tide all the way

- ETA 1900 - plan to unload this evening.

1930 I.O.S. - offloading left for next day.

- U.S. equipment + samples + personal equipment taken off only.