

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2008-26

DATE:

From:

28 MAY

to:

17 JUNE 2008

VESSEL:

JOHN P TULLY

PROJECT(S):

LING P

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

WaterProperties.ca

Captain:	Simon Schwarz	First Officer:	Don
Second Officer:	Shane Lovelace	Third Officer:	Erika
Fishing Master:	—		

Mission Participants / Agencies: TOS, U3C, Uvic, UW, OSU, NOAA

Scientific Personnel:	Chief Scientist:	Watch	Cabin	Name	Watch	Cabin
Colleen Durkin UW	0600-1200	B	Keith Johnson	0700-1900	A	G
Rhonda Marohl UW	1200-1800	B	Tim Giesbrecht UVic	1800-2400	G	
Adrian Marchetti UW	0600-1200	C	David Semeniuk UBC	0000-0600	H	
Tory Fitchett OSU	0000-0600	C	Chris Payne UBC	1800-2400	H	
Patrick A'Hearn NOAA	0600-1200	D	Doug Anderson IOS	0000-1200	up P	
Chuck Stump UW	1200-1800	D	Tanet Burwell-Clarke IOS		up S	
Jody Wright UBC	1200-1800	E	Michael Artychuk IOS		7	
Marvis Jo Ziebel OSU	1800-2400	E	Doug Yelland IOS	1200-2400	12	
Kristina Brown UBC	0000-0600	F				
Nes Sutherland IOS		F				

[illegible]

Data logging computer: HP Compaq
Data acquisition program: Seasave V7.16
CTD deck unit make: Seabird model: 11plus serial number: 0424

Primary CTD

Make: Seabird model: 911plus serial number: 0443

Primary temperature serial number: 4054

Primary conductivity serial number: 1766

Secondary temperature serial number: 1705

Secondary conductivity serial number: 2128

Transmissometer: Wetlabs Model: CSTAR s/n: 1005 DR

Fluorometer: Model Seapoint Cable gain: 10K s/n: 2228 P, Q Or NO pump?

Oxygen sensor: Seabird Model: SC43 s/n: 1176 P, S or NO pump?

PAR sensor: Biospherical Model: QSP2300 s/n: 4656

Other sensors: Benthos Attinometer offset approx 8° s/n: 1252 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: _____

P 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: _____

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):

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Ocean Sciences Division, Institute of Ocean Sciences

Month May / June				Year 2008			Ship Tully				Cruise ID 2008-26				
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							
31	SI 03	1805	BE	ROS		1	48 35 57	123 30.00	224				DA et al.		
		0214	BO				48 35 54	123 30.02		214	1-11	11			
		0229	EN				48 35 49	123 30 01							
01	JF1	0751		LOOP			48 16 01	123 30 54					DA et al		~1/2 mile away from JF1 due to traffic (3 cables west)
01	JF2	0950		Loop			48 18.012	123 59.770					DA et al		No flow to fss fluorometer before JF1
01	JF3	1141		LOOP			48 26 96	123 28 82	207				DA DS TE KB DA AM		
01	JF4	1326		LOOP			48 32 28	124 59 74							
01	P1	1525	BE	ROS		2	48 34 49	125 30 09	132						
		1528	BO				48 34 48	125 30 13		125	12	1			SAL, CHL NOT
		1531	EN				48 34 47	125 30 12							
01	P2	1739	BE	ROS		3	48 36 01	126 00 02	117						
		1742	BO				48 36 01	126 00 02			13-24	12			
		1752	EN				48 35 98	125 59 96							
1	P2	1802	BE	NET		4	48 35 97	125 59 94	117						
		1806	BO				48 35 99	125 59 95		100					
		1808	EN				48 35 99	125 59 96							
1	P2	1838	BE	ROS		5	48 35 99	125 59 98	117						
		1839	BO				48 35 99	125 59 99		5	25-37	13			LOW/OSU
		1842	EN				48 35 98	125 59 99							

Cast Type:
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USW = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter
=

Bottle Firing Method:
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DN = Down / No stop

Time Code:
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Notes:

This page is for any notes or observations

0001: 24 Niskins closed, 11 "real" Niskins, the others closed to check for mis-firing.

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Month <u>JUNE</u>				Year <u>2008</u>			Ship <u>J.P. TULLY</u>				Cruise ID <u>2008-26</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							
1	P3	2050	BE	ROS		6	48 37.51	126 20.01	808			1	dy, cs	✓	
1	1	2102	BO	1		1	48 37.50	126 20.06		813	38	1			
		2119	EN	1		1	48 37.52	126 20.03							
1	P4	2247	BE	ROS		7	48 39.11	126 40.02	1301					✓	
1	1	2250	BO	1		1	48 39.09	126 40.05		200	39-55	17			
		2307	EN	1		1	48 39.06	126 40.02							
1	P4	2318	BE	other		8	48 39.08	126 40.09							Zodiac Away
		2336	EN				48 39.09	126 40.04							
1	P4	2354	BE	ROS		9	48 39.08	126 40.08	1319					✓	PAR off
2	1	0020	BO	1		1	48 39.10	126 40.12		1315	56-74	19			
2	1	0058	EN	1		1	48 38.91	126 40.12							
2	P4	0214	BE	ROS		10	48 38.98	126 39.95	1317					✓	PAR off
1	1	0238	BO	1		1	48 38.99	126 39.98		1322	75-98	24			2° Sal bad
		0306	EN	1		1	48 38.99	126 40.06							
2	P4	0324	BE	NET		11	48 39.01	126 40.05	1317						Bongo to 250m
1	1	0330	BO	1		1	48 39.02	126 40.08		250					
		0335	EN	1		1									

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Month JUNE				Year 2008			Ship TULLY				Cruise ID 2008-26					
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								
2	P4	0358	BE	ROS		12	48 39.06	126 40.15	1317						✓	PAR off
1	1	0402	BO	1		1	48 39.06	126 40.15		50	99-122	24				
		0403	EN	1			48 39.07	126 40.15								
2	P4	0422	BE	BOT		13	48 39.05	126 39.99	1313	400		6				Go-flo
	"	0730	EN	BOT												Can file change.

2	P4	0800		PUMP		14										PUMPING TM
	P4	1040	EN				48. 39.27	126° 40.3	1325	40						+ INCUBATION
2	P5	1248	BE	ROS		15	48 41 51	127 10. 10	2086							
		1324	BO				48 41. 49	127 09. 99		2005	123	1	DA et al	✓		
		1544	EN				48 41. 49	127 09 99								
2	P6	1550	BE	ROS		16	48 44. 60	127 39 99	2540							
		1626	BO				48 44. 62	127 39 97		2005	124	1	DA et al	✓		
		1646	EN				48 44 57	127 40 04								
2	P7	1901	BE	ROS		17	48 46.61	128 09.95	2503							+ LOOP
1	1	1929	BO	1		1	48 46.58	128 09.98			125	1				
		1959	EN	1		1	48 46.56	128 09.94								

. Com file change

0443bctd.com 2nd cond. 2173 in for 2128. Attempting to troubleshoot 0443's 2nd cond
dilemma. Backup ctd next.

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Month <u>June</u>				Year <u>2008</u>			Ship <u>Tully</u>			Cruise ID <u>2008-26</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							
2	P8	2231	BE	ROS		18	48 48.99	128 40.07	2508				dy	✓	
↓	↓	2315	BO	↓		↓	48 48.77	128 39.93		2005	126-149	24			
3		0003	EN	↓			48 48.54	128 39.85							
3	P8	0032	BO	NET		19	48 48.44	128 39.75		250			dy		
		0039	EN				48 48.40	128 39.67							
3	P9	0308	BE	ROS		20	48 51.36	129 09.91	2337				dy	✓	
↓	↓	0334	BO	↓		↓	48 51.32	129 09.94		2005	150	1			
↓	↓	0402	EN	↓		↓	48 51.27	129 09.94							
3	P10	0625	BE	ROS		21	48 53.56	129 40.04	2641				dy+RJ	✓	
↓	↓	0659	BO	↓		↓	48 53.59	129 40.08		2005	151	1			
		0720	EN				48 53.59	129 40.11							
3	P11	0936	BE	ROS		22	48 56.10	130 10.09	2752						
		1015	BO				48 56.17	130 10.09		2005	152	1			
		1041	EN				48 56.10	130 10.14							
3	P12	1258	BE	ROS		23	48 58.19	130 39.93	3232						
		1332	BO				48 58.20	130 39.96		2	153-174	22	DA RB TF	✓	UBC CAST
		1409	EN				48 58.20	130 40.00							

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Month June				Year 2008			Ship Tully			Cruise ID 2008-26					
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							
3	P12	1458	BE	ROS		24	48 58.18	130 39.99	3232						UW/OSU
		1502	BO				48 58.21	130 40.00		45	175-198	24	DAAL	✓	
		1509	EN				48 58.24	130 40.95							
3	P12	1548	BE	PUMP		25	48 58.18	130 39.98	3234	40					pumping
		1733	EN	PUMP											
3	P12	1746	BE	ROS		26	48 58.20	130 40.00	3234						DEEP ROS
		1842	BO				48 58.21	130 40.00		3275	199-221	23	DAAL	✓	
		1959	EN				48 58.17	130 40.09							
3	P12			NET		27			3270						Bongo 250
		2022	BO				48 58.25	130 40.20		250					
3	P12	2105	BE	ROS		28	48 58.19	130 40.06	3236						PAR on
1	1	2107	BO	1		1	48 58.19	130 40.08		200	222-238	17			DMS
		2122	EN	1			48 58.18	130 40.13							
3	P12	2118	EN	OTHER		29	48 58.19	130 40.18							ZODIAC
"	"	2130	BE	BOTTLES	MBSS	30	48 58.17	130 40.13		400					TM GOFLO'S X-NIS
		2305	EN				48 58.15	130 39.94							4 CASTS, 75m, 100m, 150m + (200, 300, + 400m)
4	P13	0322	BE	ROS		31	49 02.62	131 39.90	3043						PAR off
1	1	0356	BO	1		1	49 02.63	131 39.98		2005	239	1	dy	✓	
			EN	1											

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Month June				Year 2008			Ship Tully				Cruise ID 2008-26					
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								
4	P14	0857	BE	ROS		32	49 07 42	132 39 98	3319							10
		0931	BO				49 07 40	132 39 97		2005	240-241	6	DA et al			240 - Chrysaera 54 bottles 241 - ROS
		0952	EN				49 07 40	132 39 98								5
4	P15	1420	BE	ROS		33	49 11 98	133 39 94	3401							
		1448	BO				49 11 94	133 39 97		2005	242	1	DA et al			
		1508	EN				49 11 98	133 39 99								
4	P16	1932	BE	ROS		34	49 17.00	134 39.96	3635							
1	1	2018	BO	1		1	49 16.95	134 40.07		3685	243-266	24				
		2129	EN	1		1	49 16.90	134 40.03								
4	P16	2022		Other		35	49 16.95	134 40.07								Zodiac away
								134								
4	P16	2149	BE	NET		36	49 17.05	134 40.03	3636							Bongo
		2155	BO				49 17.05	134 40.06		250						
4	P16	2235	BE	ROS		37	49 17.02	134 39.97	3636							DMS cast
1	1	2240	BO	1			49 17.00	134 39.99		200	267-283	17				PAR ON
		2254	EN	1			49 16.97	134 39.97								Towing 12m + 50m Hobbs 120m
4	P16	2340	BE	ROS		38	49 16.96	134 40.00	3636							UBC cast
1	1	0002	BO	1		1	49 16.90	134 39.99		2005	284-305	22				PAR OFF
		0037	EN				49 16.82	134 39.94								

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Month <u>June</u>		Year <u>2008</u>		Ship <u>Tully</u>		Cruise ID <u>2008-26</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							
5	P16	0112	BE	ROS		39	49 17.00	134 40.01	3636						✓ W/OSU cast
1	1	0115	BO	1		1	49 16.97	134 40.01		180	306-329	24			PAR off
		0121	EN				49 16.97	134 39.98							
5	P16	0138	BE	Pump		40	49 16.93	134 39.95	3636	40					Go-flo + Pumping
1	1		EN	Pump											
1	1		BE	BOT		41				400		6			
		0527	EN	BOT			49 12.04	134 38.92							
5	P17	1004	BE			42	49 21 07	135 39 .88	4151						See col →
		1035	BO				49 21 06	135 39 .91		2005	330	1	DA et al	✓	
		1110	EN				49 21 08	135 39 96							
5	LOOP1	1500		USW			49 21 98	135 58 81	4000+				DA		
6	P18	0708	BE	ROS		43	49 25 96	136 40 04	3837						
1	1	0743	BO	1		1	49 25 98	136 39 97		2005	331-335	5	DA et al		UBC
		0807	EN				49 26 03	136 40 04							See Sat back to 65m from noisy.
6	P19	1307	BE	ROS		44	49 29.99	137 40 .05	3928						Changed cables → *
			BO							2005	336	1	DA et al		CTD not happy → return to surface.
			EN												

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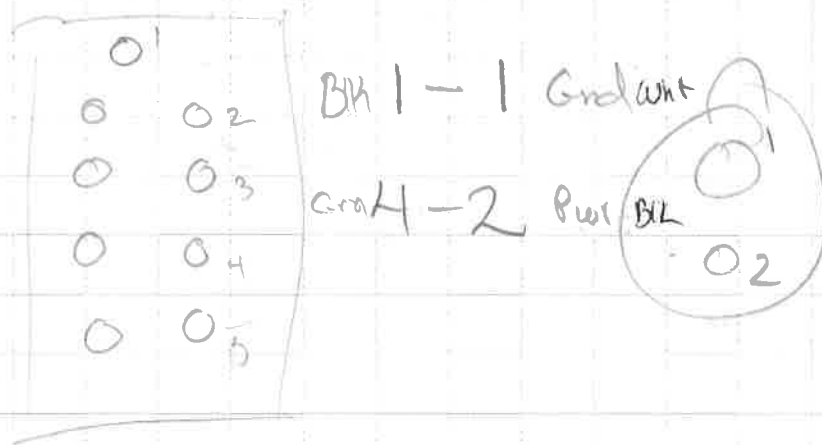
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Sea sat out from surf to 75 m. will try cable change.

* Changed sea cable, pump Y cable, Trans/Oxy Y cable.

9 Pin adaptor cable wiring - Focal slip rings



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Month <u>June</u>				Year <u>2008</u>			Ship <u>Tully</u>			Cruise ID <u>2008-26</u>					
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							Latitude	Longitude							
5	P19	1618	BE	ROS		44	49 30.03	137 39.90	3927						"New" drags cable not working well.
		1653	BO				49 30.01	137 40.01		2005	336	1	DA	✓	
		1723	EN				49 30.02	137 39.99							Archiving not started
6	P20	2212	BE	ROS		45	49 34.00	138 39.86	3967						DRS PAR ON
1	1	2219	BO	1		1	49 33.99	138 39.89		200	337-353	17	DY		
		2231	EN	1		1	49 33.99	138 39.912							
6	P20	2222	BE	Boat		46	49 33.99	138 39.87							Zodiac away
6	P20	2316	BE	ROS		47	49 33.99	138 39.93	3967						PAR OFF
7	1	0028	BO	1		1	49 33.98	138 40.00		4025	354-377	24	DY		DEEP CAST
7	1	0145	EN	1		1	49 33.96	138 40.13							Depth = 3954m + 10m
7	P20	0203	BE	NET		48	49 33.96	138 40.12	3967						
1	1	0213	BO	1		1	49 33.96	138 40.14		250					255m out
		0223	EN	1		1	49 34.02	138 40.11							
7	P20	0250	BE	ROS		49	49 34.05	138 40.04	3967						UBC cast
		0317	BO	1		1	49 34.03	138 40.07		2005	348-399	22			
		0350	EN	1		1	49 34.04	138 40.07							
7	P20	0421	BE	ROS		50	49 34.02	138 40.00	3965						UW/OSU
1	1	0422	BO	1			49 34.02	138 39.99		100	400-423	24			
		0427	EN	1			49 34.00	138 40.00							

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This page is for any notes or observations

Archived 2006-26-0044.hox at approx 1700 on up cast.

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Month <u>June</u>				Year <u>2008</u>			Ship <u>Tully</u>				Cruise ID <u>2008-26</u>				
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							Latitude	Longitude							
7	P20	0450	BE	Pump		51	49 33.95	138 40.02	3965						Go-flos/pumping
		0806	EN	BOTTLES	MRS		49 34.03	138 39.93		400		6			
7	P20	0815	BE	Float		52	49 34 03	138 39 . 93	3965				DA-11		
7	P21	1253	BE	ROS		53	49 37 99	139 39 99	3960						
		1327	BO				49 38 01	139 40 00		2005	424	1	DA & PA		1 other watchkeeper doing like Brian Wilson because they worked too hard on P20.
		1359	EN				49 38 02	139 40 02							
7	P22	1819	BE	ROS		54	49 41 99	140 39 98	3894						
		1855	BO				49 42 02	140 39 98		2005	425-429	5	DA, PA + AN	✓	Perhaps fluorometer needs a new cable.
		1921	EN				49 42.01	140 40 01							
7	P23	2350	BE	ROS		55	49 45.99	141 39.92	4053				34	✓	Calibration/DIC
8		0010	BO				49 45.98	141 39.99		2010	430-453	24			
		0037	EN				49 46.00	141 40.04							+ Loop
8	P24	0450	BE	ROS		56	49 50.22	142 39.99	3987				34	✓	
		0521	BO				49 50.19	142 39.98		2005	454-458	5			+ Loop
		0550	EN				49 50.21	142 39.94							
8	P25	0946	BE	ROS		57	50 00 08	143 36 28	4143						
		1018	BO				50 00 02	143 36 32		2005	459	1	DA	✓	
		1039	EN				50 00 04	143 36 30							

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Cast Type:

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 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

DN = Down / No stop

Notes:

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

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>June</u>				Year <u>2008</u>			Ship <u>Tully</u>			Cruise ID <u>2008-26</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							
8	P35	1348	BO	ROS		58	49 59.99	144 18 17	4152						+ LOOP
		1418	BO				49 59.87	144 18.35		2007	460	1	DAetal	✓	
		1439	EN				49 59.86	144 18 40							
8	P26	1729	BE	ROS		59	50 00.03	145 00 00	4250						
1	1	1856	BO	1		1	49 59.97	144 59.91		4315	461-484	24	DAetal	✓	IOS deep cast 0-11 : Depth = 4246m
		2030	EN	1		1	50 00.01	144 59.46							
	P26	1737		BOAT		60	49 59.98	144 59.97							Zodiac
	P26	2045	RF	DRF		61									Zodiac - Glider deployment
8	P26	2227	BE	ROS		62	50 00.03	144 59.94	4247				DY etc	✓	PAR ON
1	1	2232	BO	1		1	50 00.05	144 59.93		250	485-507	23			DM S/ONAR/OSU
		2249	EN			1	50 00.09	144 59.90							
8	P26	2346	BE	ROS		63	49 59.98	144 59.95	4252						PAR OFF
9	1	0045	BO	1		1	50 00.13	144 59.82		4005					ONAR + UW
1	1	0144	EN				50 00.27	144 59.67							
9	P26	0220	BE	Net		64	49 59.98	145 00.06	4253						Bongo 250m
		0225	BO				50 00.01	144 59.98		250					
9	P26	0236	DE	Net		65	50 00.00	144 59.99							Bongo 1000m
		0302	BO				50 00.03	144 59.96							see note →
Cast Type: USW = Sea Water Loop Bottle Firing Method: Time Code:															

Cast Type:

BOT = Bottle cast, no CTD
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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
DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast
DE = Deployment Time
MR = Messenger Release Time
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Transmissometer to be cleaned before each cast, do not use Ammonia products

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This page is for any notes or observations

Large crust (prawn!) - put in separate jar (20% Formalin)

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month				Year			Ship		Cruise ID						
June				2008			Tully		2008-26						
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							
9	P26	0340	BO	Net		66	50 0.10	145 0.03	4252	100					UBC phyto net
9	P26	0355	BE	ROS		67	50 0.13	144 59.92	4252						UBC (girls)
1	1	0428	BO	1		1	50 0.22	144 59.94		2005	532-555	24			
		0502	EN	1		1	50 0.36	144 59.88							
	P26		BE	Pump		68									
			EN												
9	P26	1329	BE	ROS		69	50 00.03	145 00.00							
		1330	BO				50 00.03	145 00.02			556-559	4	DA	✓	
		1331	EN				50 00.03	144 59.99							
	P26	1552		MOR			50 06.99	144 57.96							ADCP mooring rel
		1621		MOR			50 07.06	144 58.42							-reset mooring up
				MOR		70									Deploy ADCP
10	P26	0339	BE	NET		71	50 0.26	144 59.84	4240						Multinet + (GPS)
		0415	BO			1	50 0.22	144 59.83		1070					Sonar
10	P26	0500	BE	BOT		72	50 0.09	144 59.98		800					GoFlo
		0800	EN												
10	P26	0840	BE	PUMP		73	49° 59.56	144 59.39		40					PUMP
		1151	EN				49° 59.35	144° 59.42							

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month				Year				Ship				Cruise ID			
June				2008				Tully				2008-26			
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							
10	P26	1236	BE	ROS		74	49 59 99	144 59 95	4224						
		1317	BO				49 59 96	144 59 76		2500	560-563	4	DA KB	✓	Thorium #2
		1345	EN				49 59 64	144 59 16							
10	Mooring	1505	BE	ROS		75	50 08 29	144 49 96	4219						
		1508	BO				50 08 28	144 49 98			564-569	4	DA-21d		
		1517	EN				50 08 27	144 49 99							
	Mooring	0240	BE	MOR		76									
			EN				50 07, 828	144 50, 021							
	P26	0845	BC	Pump		77									UBC pump
		1210	EN												
	P26	1239	BC	BOT		78									Go-Plus.
			EN												
	P26			Pump		79									UBC pump
11	P26	1928	BE	ROS		80	50 07.73	144 49.48	4217						Shallow mooring
1	1	1931	BO	1		1	50 07.72	144 49.48		200	570-575	6			cast + Keith ph
		1940	EN	1			50 07.73	144 49.50							@ 50m
11	P26	2000	DE	DRF		81	50 07.7	144 49.5	4217			50			Messages in bottles
		2005	EN				50 07.7	144 484							

Cast Type:

UBC = Sea Water Loop

Bottle Firing Method:

Time Code:

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
DN = Down / No stop

Time Code:
BE = Beginning Time of Cast
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EN = End Time of Cast

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

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month JUNE				Year 2008				Ship J.P. TULEY				Cruise ID 2008-26			
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							
12	LOOP 2	0126	BE	USW		—	50 15.04	143 18.99	4053						Loop SAL, NUT, CHL
12	LOOP 3	0702	BE	USW		—	50 22.23	141 47.39	3413						Loop
12	LOOP 4	1256	BE	USW		—	50 29.98	140 06.66	3799						" " " "
12	LOOP 5	1804	BE	USW			50 36.66	138 36.26	3767						" " " "
13	LOOP 6	0655	BE	USW		—	50 34.05	134 59.78	3504						" " " "
13	LOOP 7	1256	BE	USW		—	51 03.61	133 18.65	2988						" " " "
13		2232	BE	Net		82	51 23.11	130 52.43	2210						
		2314	BO				51 23.12	130 52.51		1020	5 nets				MPS
						83									
13		2235		BOT		83	51 23.11	130 52.43	2210	50					1 NISKIN FOR PH TEST
14	Loop 8	0142					51 27.19	130 17.70							Loop Sal Chl Net
14	LOOP 9	0659	BE	USW			51 38.73	128 47.47	83						" " " "
14	H6	0933	BE	ROS		84	51 42.62	128 07.45	245						
		0937	BO				51 42.65	128 07.41		237	576-578	3	Detail	✓	
		0943	EN				51 42.64	128 07.38							
14	H5	1011	BE			85	51 43.40	128 03.60	336						
		1016	BO				51 43.39	128 03.58		330	579	1	Detail	✓	
		1022	EN				51 43.37	128 03.57							

DAILY SCIENCE LOG

Month June				Year 2008			Ship Tully			Cruise ID 2008-26					
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							
14	M4	1046	BE	ROS		86	51 44 63	128 00 19	435						
		1053	BO				51 44 64	128 00 13		425	580-594	15	Daniel	✓	
		1116	EN				51 44 62	128 00 30							
14	M3	1149	BE	ROS		87	51 46 25	127 54 58	321						
		1155	BO				51 46 25	127 54 61		318	595-606	12	Daniel	✓	
		1212	EN				51 46 27	127 54 71							
14	M2	1242	BE	ROS		88	51 46 48	127 53 27	184						
		1245	BO				51 46 46	127 53 24		183	607-615	9	Daniel	✓	
		1253	EN				51 46 47	127 53 25							
14	Ri1	1549	BE	ROS		89	51 26 40	127 38 16	329						
		1554	BO				51 26 41	127 38 14		320	616-629	14	Daniel	✓	
		1609	EN				51 26 42	127 38 14							
14	Ri1	1624	BE			90	51 26 39	127 38 14	330						
		1631	BO				51 26 40	127 38 14		300					
14	Ri2	1726	BE			91	51 31 21	127 33 65							
		1740	BO				51 31 17	127 33 65							
14	Ri2	1753	DE			92	51 31 24	127 33 62	330						
		1759	BO				51 31 23	127 33 57		323	630-633	4	Daniel	✓	
		1807	EN				51 31 24	127 33 58							

DAILY SCIENCE LOG

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Month <u>June</u>				Year <u>2008</u>			Ship <u>Tully</u>				Cruise ID <u>2008-26</u>					Page <u>15</u> of <u> </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									
14	Ri 3	1847	BE	ROS		93	51 35.92	127 32.04	324								
		1854	BO				51 35.92	127 32.07		314	634-637	4	DA2	✓			
		1904	EN				51 35.94	127 32.09									
14	Ri 3	1913	BE	Net		94	51 35.93	127 32.08	324						Bongo		
		1924	BO				51 35.92	127 32.07		314							
		1929	EN				51 35.91	127 32.06									
14	Ri 4	2009	BE	Net		95			297						Bongo		
		2018	BO				51 38.93	127 26.94		287							
14	Ri 4	2033	BE	ROS		96	51 38.93	127 26.79	298								
		2038	BO				51 38.94	127 26.80		290	638-650	13					
		2055	EN				51 38.88	127 26.75									
14	Ri 5	2136	BE	ROS		97	51 40.76	127 19.95	199								
		2140	BO				51 40.76	127 19.97		189	651	1			Sm		
		2144	EN				51 40.74	127 19.97									
14	Ri 5	2150	BE	Net		98	51 40.71	127 19.97	199								
		2156	BO				51 40.71	127 19.98		190							
		2200	EN				51 40.72	127 19.97									
	Ri 6	2223	BE	Net		99	51 40.49	127 16.97	141								
		2226	BO				51 40.48	127 16.97		130							

Cast Type:

USW = Sea Water Loop

Bottle Firing Method:

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DAILY SCIENCE LOG

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Month				Year			Ship				Cruise ID				Comments
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	
							Latitude	Longitude							
14	Ri6	2242	Be	ROS		100	51 40.51	127 17.06	145						
		2244	Bo				51 40.51	127 17.04		135	652	1		5m bottle	
		2247	En				51 40.54	127 17.02							
15	CS10	0445	BE	ROS		101	51 16.49	128 19.86	80						
		0447	BO				51 16.49	128 19.87		70		①			
		0449	EN				51 16.50	128 19.88							
15	CS10	0459	DE	NET		102	51 16.51	128 19.88	80						
		0501	BO				51 16.51	128 19.88		70					
15	CS09	0551	BE	NET		103	51 12.49	128 27.97	195						
		0558	BO				51 12.50	128 27.97		185					
15	CS09	0611	BE	ROS		104	51 12.51	128 28.00	195			①			
		0614	BO				51 12.50	128 28.00		185					
		0617	EN				51 12.51	128 27.98							
DONE LIKE DINNER!															

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