DAILY LOG

CRUISE NUMBER	2001-29

INSTITUTE OF OCEAN SCIENCES

OCEAN SCIENCES AND PRODUCTIVITY DIVISION

DATE	21 Aug. — 5 Sept 2001
VESSEL	J.P. Tully
PROJECT	Line P

Captain: PAUL FROST **First Officer:** DARYL MINTINKO

Second Officer: RICH MARRIOTT **Third Officer:** RUSS McNEIL

Mission Participants / Agencies:

Scientific Personnel: **Party Chief:** Ron Perkin

Name	Watch	Cabin	Name	Watch	Cabin

Second leg of Mission: Party Chief:

Name	Watch	Cabin	Name	Watch	Cabin
Sea					
Fluor					
Trans					
O_2					
PAR					

Data logging computer: FS02

Data acquisition program:

CTD deck unit make: Seabird model: 11+ serial number: 0424

Primary CTD

Make: Seabird model: 911+ serial number: 0550

Primary temperature sensor serial number: 2668 Calibration date: 18-Jul-01

Primary conductivity sensor serial number: 2102 Calibration date: 17-Jul-01

Secondary temperature sensor serial number: 2374 Calibration date: 18-Jul-01

Secondary conductivity sensor serial number: 2128 Calibration date: 17-Jul-01

Other sensors: TRANSMISSOMETER s/n: 192 D

Other sensors: PAR s/n:

Other sensors: Oxygen s/n:

Other sensors: Fluorometer s/n:

Secondary CTD

Make: model: serial number: 0443

Primary temperature sensor serial number: Calibration date:

Primary conductivity sensor serial number: Calibration date:

Secondary temperature sensor serial number: Calibration date:

Secondary conductivity sensor serial number: Calibration date:

Other sensors: s/n:

Other sensors: s/n:

Other sensors: s/n:

Comments:

17026 new mmd 1.9635×10^{-3}

3045 + 8 =

Date of cable termination: _____

Guide to cable terminations:

Please read and complete this form before reterminating cable. We have two standard CTD cables in use, nominal .316" and .322". This form specifically addresses these two cables, however the same considerations apply to using other cables. The specifications for non-standard cables and associated terminations are available at Tom Juhasz's office (room 1221).

Please identify nominal cable diameter: _____ **Winch:** _____

Actual diameter measurements, two locations in triplicate at termination and approximately 5 metres back from termination.

At cable end:	at 5 metres:	
1. New	1. New	
2. .3165	2. .3165	(#1383)
3. _____	3. _____	

For comparison, the outer armour measurements of new cable:

Nominal .316" should be .3155 to .3165"

Nominal .322" should be .318 to .326"

Record specifications for other cables: _____ within: _____

The tolerance of the PMI Evergrip termination is tighter and only cables within these limits should be used.

For nominal .316" cable the lowest possible diameter is .309"

For nominal .322" cable the lowest possible diameter is .321"

Describe cable:

Kinks: _____

Birdcage _____

Rust flaking off cable _____ (flaking, not just looks rusty)

Cable round or oval _____

Does cable have loose outer armour? _____

(Raised wires or space between wires.)

Are outer armour wires flattened? _____

Remove cable that exhibits these signs of deterioration. To be authorised by Chief Scientist of the cruise, or the winch shop (Tom Juhasz at 250-363-6598).

Megger results by conductor (should be greater than 10,000. meg ohms)

Inner armour to conductor 1 _____

Inner armour to conductor 2 _____

Inner armour to conductor 3 _____

Please identify PMI sleeve used by checking the appropriate blank:

For .316" cable, diameter of inner dimension of sleeve should be .3265" _____

part number 9004897–13, cable diameter range .309" to .320".

For .322" cable, diameter of inner dimension of sleeve should be .3400" _____

part number 9004897–14, cable range .321" to .333".

Sliding the sleeve onto the cable should be difficult.

Evergrip helical Rods:

The part number is 9005-9002 and covers left hand lay cables of diameter range .309" to .333".

Presence of grit on inner surface (yes / no) _____

Condition of wires (damaged ends?) _____

Are the wires rusted? _____

Comments:

_____

_____

_____

_____

_____

_____

_____

_____

		O_2	Sal	Nut	
1 - 11	1	✓	✓	✓	
15 - 30	8	✓	✓	✓	
#31 - 36	13		✗	✓	no Salinity Samples
44 - 61	22		✓		
62 - 84	23	✓	✓	✓	
85 - 108	38	✓	✓	✓	
118 - 133	42	✓	✓	✓	

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2001 **Month** August **Ship** J. P. Tully **Cruise I.D.** 2001-29

Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
22	SI03	ROS		BE	1	48 35 92	123 30 04		223	2				
			0051?	BO	1	48 35 93	123 30 02			217	1-11	11	H.M.	
			1251	EN	1	48 35 00	123 29 97							
22	JF1	LOOP	0600	BE	—	48° 16.106	123° 30.011		153					LOOP 1
22	JF2	LOOP	0740	BE	—	48 17 99	123 59.97		185					LOOP 2
22	JF3	LOOP	0936	BE	—	48 26.96	124 29.98		222					LOOP 3
22	JF4	LOOP	1150	BE	—	48 32.36	125 00 00		60					LOOP 4
22	P1	ROS	1359	BE	2	48 34 50	125 30 09		125		12	1		
			1400	BO		48 34 50	125 30 32			110				
			1405	EN		48 34 52	125 30 27							
22	UBC2	ROS	1458	BE	3	48° 32 06	125 35.71		76			6		Closing bottles for
			1501	BO	3	48° 32.08	125° 35 72			71				Adrian. No rosette sheet
			1506	EN	3	48° 32 11	125° 35.75							
	P2	ROS	1928	BE	4	48° 36 01	126° 0.03				13			Deck unit, Rle + pump left on for a long time
			1932	BO	4	48° 36 00	126° 0.07		115	109				Garbage data @ end of file last ok.
			1936	EN	4	48° 36 03	126° 0.06							
	UBC3	ROS	2203	BE	5	48° 32.69	126° 12.00					10		
			2207	BO	5	48° 31.57	126° 11.95		560	550				
			2222	EN	5	48° 31.60	126° 12.02							

Cast type: BOT = ottle cast; CTD = CTD; MOR = mooring; ROS = Rosette; NET = net haul; DRF = drifter; USW = sea water loop

Time Code: BE = beginning time of cast; BO = bottom time of cast; EN = end of cast time; DE = deployment time; MR = messenger release time; RE = recover mooring time

OPC = Optical Plankton Counter

21290007.dat was recorded for event 8 (the deep cast at P4)

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2001 **Month** AUGUST **Ship** JOHN P TULLY **Cruise I.D.** 2001-29

Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
23	P3	CTD	0120	BG	6	48 31 46	126 20 18		815	5	14	1		SURF LOOP @ 5m
		CTD	0137	BO	6	48 37 39	126 20 17			800				
		CTD	0151	EN	6	48 37 53	126 20 15							PAR SENSOR OFF
23	P4	pumping	0332	BE	—	48 39.002	126 39.983		1315		—			
23	P4	Gr. Plos	0524	BE	7	48 38.921	126 40.084		1322	1000	—	-		
23	P4	ROS	0649	BE	8*	48 38 92	126 40 03							Deep rosette cast
		"	0712	BO	8*	48 38.91	126 39.97		1324	1300	15-30	16		150m 10m
			0756	EN	8*	48 38.85	126 39.97							Niskin # 10 + 16 were not tripped.
23	P4	OPC	0910	BE	9	"	"							OPC cast (Rob Campbell)
	P4	NET	1126	BO	10	48 38 91	126 39 98		1301	150	—			BONGO
23	P4	OPC	1258	BE	12									OPC cast (Rob Campbell)
	P4	NET	1200	BO	11	"	"		1301	150				DNA SCORGNET
23	P4	ROS	1449	BG	13	48 38.96	126 40.10		1316					
			1455	BO		48 38.92	126 40.07			250	31-36	6		
			1507	EN		48 38.90	126 39.75							
23	P4	NET	1533	BG	14	48 38 97	126 39 96		1313		3	1		ROB'S CLOSING NET
			1556	BO		48 38 95	126 40 06							
				EN										

Cast type: BOT = ottle cast; CTD = CTD; ROS = Rosette; NET = net haul; USW = sea water loop; MOR = mooring; DRF = drifter

Time Code: BE = beginning time of cast; BO = bottom time of cast; EN = end of cast time; DE = deployment time; MR = messenger release time; RE = recover mooring time

* The P4 deep cast was recorded as 21290007.dat

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2001 **Month** AUGUST **Ship** J.P. TULLY **Cruise I.D.** 2001-29

Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
23	P5	CTD	1933	BE	15	48 41.56	127 9.95						S.T./T.S.	Garbage data @ beginning of P6 = 1050 2,005
	"		1959	BO	15	48 41.48	127 9.99		2100	1500	37	1		Some good data, mostly garbage
	"		2016	EN	15	48 41.44	127 10.00							
23	P6	CTD	2250	BE	16	48 44 57	127 39 98		2530		38	1	HM/R.P.	
	"		2333	BO	16	48 44 58	127 40 07			2545				
	"		2359	EN	16	48 44 67	127 40 18							
24	P7	CTD	0223	BE	17	48 46 57	128 10 00		2490					
			0302	BO	17	48 46.59	128 10.12			2538	39	1	HM/RP	
			0339	EN	17	48 46.69	128 10.21							
24	P8	CTD	0603	BE	18	48 49.06	128 39.92		2500					Stop @ 575 ↓ to check winch 7°
			0653	BO	18	48 49.10	128 39.97			2543	40	1	MR/MH	Stop @ 2247 ↓ wake change
			0724	EN	18	48 49.04	128 39.93							
24	P9	CTD	0954	BE	19	48 51.42	129 9.94		2379	2440				
			1031	BO	19	48 51.43	129 9.99				41	1		TOUCHED DOWN
			1108	EN	19	48 51 40	129 10.03							
24	P10	CTD	1331	BE	20	48 53 62	129 39.97		2625					
			1419	BO	20	48 5356	129 40.07			2678	42	1		
			1505	EN	20	48 53.57	129 40.00							

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Time Code: BE = beginning time of cast; BO = bottom time of cast; EN = end of cast time; DE = deployment time; MR = messenger release time; RE = recover mooring time

After the 400m Rosette cast, the GoFlo sampling was attempted but the Kevlar line slipped into the cheek groove and parted. A new block was installed.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2001 **Month** AUGUST **Ship** JOHN P TULLY **Cruise I.D.** 2001-29

Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
24	P11	Go-flos		BE	—	48 56.07	130 09 71			50m.	—		MJ.	5 go-flos for Keith (for cleaning purposes)
24	P11	CTD	1827	BE	21	48 56.02	130 09.96		2735				MH/MR	
			1906	BO	21	48 55.92	130 10.11			2725	43	1		
			1935	EN	21	48 55.86	130 10.36							
24	P12	ROS	2220	BE	22	48 58.15	130 39.96				44-61	18		PAR SENSOR ON
			2232	BO	22	48 58.15	130 40.03		3300	400				
			2301	EN	22	48 58.18	130 40 03							OM sample not taken S.T.
24	P12	Pump & GoFlo	2342	BE										
25	P12	ROS	0204	BE	23	48 58 08	130 40 27		2964					PAR SENSOR OFF
		ROS	0304	BO	23	48 58.02	130 40.07			3150	62-84	23		
		ROS	0417	EN	23	48 58.14	130 40 12							
25	P12	OPC	0735	BE	24	48 58.21	130 40.00		2996	700m				
			0850	EN	24	46 58.221	130 40.130							
25	P12	VMPS	0855	BE	25	48 58.21	130 40.10		2999	2000				
			1030	EN	25	48 30.1	130 40.0							
	P12	NET	1115	BE	26	48 58 27	130 40.06		3010	150				BONGO
25	"	OPC	1204	BE	27	48 58 24	130 40.04		3013	700				
		OPC	1231	EN	27	48 58 25	130 40.06							

Cast type: BOT = ottle cast; CTD = CTD; MOR = mooring; ROS = Rosette; NET = net haul; DRF = drifter; USW = sea water loop

Time Code: BE = beginning time of cast; BO = bottom time of cast; EN = end of cast time; DE = deployment time; MR = messenger release time; RE = recover mooring time

After P13, Aug. 25, 26, 27 – Due to strike, turned back to 105, then returned to P14.

R.P. Cleaned Transmissometer Lenses 17:12 UTC Aug. 28
Slight yellowish residue on tissue after cleaning.

H.M. – CLEANED O_2 PROBE in HEATED 35°-40° c TRITON SOLUTION
AUG 28 @ 12:30 LOCAL – SOAKED 1 HR – REMOUNTED @ 1340 LOC

(PDT) 13:42 Aug. 27, "Strike resolved"; off Pachena Point; ship turned around
On Station at P14 @ 20:35 PDT Aug. 28

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year					Month			Ship					Cruise I.D.		
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
25	P12	BOT	1310	BE		48 58.265	130 39.995		3214					PRIM PROD CAST
25	P12		1338	EN		11	11							
25	P13	CTD	1823	BE	28	49 02 59	131 39 99		2958	±100				
			1915	BO	28	49 02.53	131 40.02			3055	85	1		
			1959	EN	28	49 02.61	131 40.10							
29	P14	CTD	0349	BE	29	49 07 32	132 39 83		3295					O2 and Xmeter
			0435	BO	29	49 07.37	132 39 98			3367	86	1		
			0522	EN	29	49 07.26	132 40.02							
	P15	CTD	0928	BE	30	49 12.07	133 40.11		3390					
			1026	BO	30	49 12 05	133 40.02			3450	87	1		
			1103	EN	30	49 12 04	133 40 01							
29	P16	CTD	1538	BE	31	49 17.02	134 39.82		3604					PAR SENSOR ON
			1542	BO	31	49 17.01	134 39.83			253	—	—		
			1546	EN	31	49 16.99	134 39 85							
29	P16	PRIM PROD	1650	EN	32	49 17.02	134 39 74				—	—		Go-flos for prim prod
29	P16	PUMP	1656	BE	33	49 17.02	134 39 75		3607		—	—		PUMPING
29	P16	OPC	1950	BE	34	49 17.02	134 39.75		3605	700				
29	P16	OPC PUMPS	2050	EN	34	49 17.02	134 39.75							

Cast type: BOT = ottle cast; CTD = CTD; MOR = mooring; ROS = Rosette; NET = net haul; DRF = drifter; USW = sea water loop

Time Code: BE = beginning time of cast; BO = bottom time of cast; EN = end of cast time; DE = deployment time; MR = messenger release time; RE = recover mooring time

Deep Rosette cast, # 38: Bottle 10 did not close again.

Remove the top part of the pilon, soak it in warm water with triton
Then clean each "arm + hole" with ISOPROPANOL + Q-tips. There was lots
of black grease on #10 arm.

(PDT) 14:55 Aug. 30: About ship due to medical emergency: ~~48~~ 49° 31', 137° 51'.
Head for Port Alberni.
Arrive head of pier 20:45 Sept. 1 PDT.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2001 **Month** AUG/SEPTEMBER **Ship** JOHN P TULLY **Cruise I.D.** 2001-29

Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
29	P16	VMPS	2058	BE	35	49 17.05	134 40.13		3606	2000				
29	P16		2230	EN		49 16.92	134 40.98							
29	P 16	BOT	2230	BE	36	49 16 92	134 40.98			1000				IRON Co · FLO'S
		BOT		EN	36									
29	P16	NET	1053	BE	37	49 17 027	134 40 174		3606	150				BONGO TO 150m
30	P16	ROS	0025	BE	38	49 17 00	134 39 80		3606		(85-97 SURF)			DEEP CAST
		ROS	0117	BO	38	49 17 04	134 39 99			3677	85R-108	24		95-97R = ROSSETTE
		ROS	0226	EN	38	49 16.96	134 39 97							#10 DIDN'T TRIP
30	P17	CTD	0653	BE	39	49° 20.93	135° 39.92							See note ←. Close all
			0749	BO	39	49° 20.97	135° 39.94			3600	109	24		bottles @ surface to check
			0830	EN	39	49° 20.98	135° 39.97		~3444					pilon - all bottles fired
30	P18	CTD	1247	BE	40	49 26.05	136.39.92		3801					
			1329	BO	40	49 26.03	136 39.92			3896	110	1		
			1408	EN	40	49 25 99	136 40.03							
30	P19	CTD	1845	BE	41	49° 30.04	137 39 98		3895					
			1954	BO	41	49° 30.06	137° 40.06		3970		111	1		
			2042	EN	41	49° 30.06	137° 40.08							

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Time Code: BE = beginning time of cast; BO = bottom time of cast; EN = end of cast time; DE = deployment time; MR = messenger release time; RE = recover mooring time

The ship proceeded to Port Alberni @ 9:00 PM PDT, Sept. 1. (Arrival)
Sept. 2 – unable to proceed because of the seriousness of the shaft seal problem.
- unable to repair the shaft seal and engineering help was not available on the long weekend.
- Keith Johnson left on the night of Sept. 1 with Howard Freeland, Tim Soutar, the following day.

TIM SOUTAR WORK 363-6414
HOME 479-9599

Sept. 3 (Labor Day). The ship is still disabled and cannot be fixed

Sept 4, 0914 (LOCAL). STOPPED Thermosalinograph Rls.

Sept. 4, 1400 PDT Departed Port Alberni for Victoria

Sept. 5. Held station outside Victoria till 0730, then proceeded to dock at Kuran Street Base.

Sept. 5. 1300 PDT Victoria Shipyards engineer here to evaluate the stern seal problem.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2001 **Month** SEPTEMBER **Ship** JOHN P TULLY **Cruise I.D.** 2001-29

Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
1	Loop 5	USW	0317	EN	—	48°43.64	130°36.83		2505		—	—		Loops TAKEN
1	LOOP6	USW	0701	EN		48 44.484	129 41.143		2792		—	—		LOOPS TAKEN.
1	Loop 7	USW	1058			48 46.95	128 40 720		2502					Loops TAKEN
1	Loop 8	USW	1501	EN	—	48° 46 97	127 38.39		2524		—	—		Loops TAKEN
1	LOOP9	USW	1900	EN	—	48 47.41	126 36.87		518					LOOPS TAKEN.
1	Loop 10	USW	2314	EN	—	48 47.35	125 32.46		121.4					11
5	UBC1	ROS	0631	BE	42	48° 23.09	124° 20.23		203		112-133	22		UBC samples taken
	11	11	0634	BO		48° 23.09	124° 20.22			195				from extra trips.
	11	11	0647	EN		48° 23.09	124° 20.18							

Cast type: BOT = ottle cast; CTD = CTD; MOR = mooring; ROS = Rosette; NET = net haul; DRF = drifter; USW = sea water loop

Time Code: BE = beginning time of cast; BO = bottom time of cast; EN = end of cast time; DE = deployment time; MR = messenger release time; RE = recover mooring time