

CRUISE
NUMBER

9803

DAILY LOG
INSTITUTE OF OCEAN SCIENCES
OCEAN PHYSICS

DATE

FEB. 16 - MARCH 6 '98

VESSEL

JOHN P. TULLY

PROJECT

LINE P

2nd CTD make: SOE model: 911 Plus serial no.: 0N43
Temperature sensor serial no.: PR1 2095
coefficients: slope: SEC 2142
Conductivity sensor serial no.: PR1 1729
coefficients: slope: SEC 1766
Pressure sensor range: psi serial no.: 63507
coefficients: FSP: Pumps: PR1 1602
Transmissometer model: SEC 1604
coefficients: slope: offset:

Winches:

1. make: SWANN model: 329 serial no.: 482 ^{4800m} use: failed
2. make: " model: 329 serial no.: 1307 use: 5500m
3. make: " model: 515 serial no.: 589 use: moving
4. make: " model: 1451 serial no.: 455 use: spoiling
5. make: " model: 310 serial no.: 1083 use: hydro
6. make: model: serial no.: use:
7. make: model: serial no.: use:

Salinometer: make: PORTAL model: serial no.: 59724

~~SAIL System: SEABIRD T/S~~

Program version: Time zone: UTC

Sampling interval: sec

CTF module no.: serial no.:

Remote temperature model: serial no.:

Flow sensor model: serial no.:

Other sensors: (special for this cruise)

Name: module ID: serial no.:

Name: module ID: serial no.:

Name: module ID: serial no.:

Comments:

ADCP Setup: George Chase

Program version: number of depth bins:

Time zone: bin length (2x):

Sampling interval: sec pulse length:

Blank beyond transmit: pings per ensemble:

Pulse cycle time:

% pings good threshold:

Comments:

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR	1998			MONTH	FEBRUARY		SHIP	J.P. TULLY			CRUISE	9803			PAGE	OF
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS		
18	SI03	ROS	1702	BE	1	48 35 57	123 29 94	GPS	229		1-12	12				
18	SI03	ROS	1711	BO	1	48 35 57	123 29 94			219						
18	SI03	ROS	1723	EN	1											
19	JF01	Loop	0051			48 15 430	123 30 710							LOOPS TAKEN		
19	JF02	loop	0220	EN		48 17.960	123 59.780		187							
19	JF03	loop	0410	EN		48 27 200	124 30.750		228					Loops taken		
19	JFOA	loop	055A	EN		48 32 250	125 00 86							Lost the sounder		
19	E1	CTD	0620	BE		48 31.202 48.5317	125 03.798 125.0633		? TOO	ROUGH				Loop taken 50.26389		
19	P1	CTD	1440		2	48 34.71	125 30.14		111	94				11.2192 320261		
19	P1	Loops	1445						could not lower hydro boom,					Bongo cancelled		
19	P2	CTD		BE	X	CANCELLED			116					Connector fried when CTD		
19	P2	CTD		BO										powered up - cast		
19	P2	CTD		EN										cancelled.		
19	P2	Loops	1830	BE		48 35.99	125 59.95									
19	P3	Loops	2000			48 37 58	126 19 97							Loops Taken		
19	P3	CTD	2013	BE	3	48 37 56	126 20 29							10.6889 32.5405		

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW - sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

18 Feb Rosette cast in Saanich was successful. Tied up to 208 Jetty for repairs to wind vane, left for Line P in afternoon.

Weather too rough for planned bongo tows, skipped Mackay stations

19 Feb Am Power cable to CTD was loose, connector fried when power turned on at P2.

20/2/78 Oxygen cal

Blank = .003, .003, .002
V₂ = .723, .722, .722

P5 Wind 40 knots.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR	MONTH				SHIP				CRUISE				PAGE	OF
1998	Feb.								9803				2	
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
19	P3	CTD	2032	30	3	48 37 74	126 20 58							
19	P3	CTD	2047	EN	3	48 37 90	126 20 87		745					
20	P4	ROS	0030	BE	4	48 38.97	126 39.95		1335			16		
20		ROS	0042	BO	4					400	13-29			little #2 did not close
20	P4	ROS	0103	EN	4									
20	P4	CTD	0823	BE	5	48 38.91	126 40.04							Bottle #4 1545 (Bo)
20	P4	CTD	0850	BO	5	48 38.68	126 40.27							10,9635 32.6190
20	P4	CTD	0917	EN	5	48 38.45	126 40.53		1346					
	P5	CTD	1346	BE	6	48 41.58	127 09.63		2108					11.3783 32.7167
	P5	loop	1344											loops taken
		CTD	1416	BO	6	48 41.43	127 09.53			1502.				
	P5	CTD	1442	EN	6	48 41.61	127 09.46							
20	P6	USW	1716	EN	—	48°44.74	127°40.38		?					loops taken
21	P7	USW	0013	BE	—	48 46.630	128 09.650		2530.					Wind ≈ 60kts CTD cancelled.
21	P8	USW	0540	EN	—	48°49.19	128°40.18		2562					CTD cancelled.
	P9	USW	1110		—	48 51.4	129 10.0							

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW -

sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

21 Feb

UTC 20:30 Seawater pump switched off. Engineers switching to other pump.

20:43 pumps back on

22 Feb UTC (Julian day 53.)

0245 changed plumbing to thermosalinograph so that the seawater now goes through debubbler cylinder then to thermosalinograph, then to fluorometer.

P13

CTD unit s/n 1482 blew hydraulic seal.

Sealant fuse blown AGC 1/2 250V. Problem was low resistance in sea cable connectors. Removed 5 metres of cable (had kink in cable) reterminated wire with good connectors.

Switched over to unit 1307, now 5500 m length of 3 conductor cable.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1998		Feb				9803		3						
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
21.	P10	CTD	1518	BE	7.	48 53.58	129 39.89		2682					Wind 25-30 knots
			1547	BO	7	48 53.60	129 40.00			1506.				Loops taken @ 15:23
21	P10	CTD	1610	EN	7	48 53.50	129 40.04							8.9830 32,5941
21	P10	Bouyo	1628		8	48° 53 460	129° 39.910		2685	150				
21	P11	CTD	1934	BE	9	48° 52.00	130° 09.89		2793					Loops taken
21	P11	CTD	2009	BO	9	48° 55.93	130° 10.10			1795				8.9921 32.6004
21	P11	CTD	2041	EN	9	48° 55.86	130° 10.71							
22	P12	CTD	0029	BE	10	48 58.24	130 40.19		3255.					86365 325949
22		CTD	0130	BO	10	48 58.15	130 40.70			3260.				
22		CTD	0212	EN	10	48 58.25	130 40.80							
22	P12	Bouyo	0710	BO	11	48° 58.050	130° 39.83		3146	183 m of wire				Wire < 35°
	P13			WINCH FAILURE		STATION ABORTED			2964.					NEXT STA. PLEASE
	P13		1455			49 02 970	131 41 810							LOOPS TAKEN

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW - sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

Repaired Salinometer. Problem was kinked Tygon tubing for cell drain and air pump with stuck flapper valve.

P16 1815 UTC Seawater system & lab being repaired. Small vacuum leak at strainer causing intake of air.

ROSETTE CAST TO 400m - NISKIN #16 is cracked at lower end - no sampling

Bottle 16 replaced.

1992

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH			SHIP		CRUISE			PAGE		OF		
1998		FEBRUARY			TULLY		9803			4				
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
22	P14	CTD	2011	BE	12	49 07.31	132 39.88							New winch
22	P14	CTD	2037	BO	12	49 07.36	132 39.81							7.6258 32,6098
22	P14	CTD	2057	EN	12	49 07.44	132 39.87							
22	P14	LOOPS	2015			49 07.31	132 39.86							loops taken
23	P15	CTD	0133	BE	13	49 12.02	133 40.02		3450.					logs taken @ 01:30
			0200	BO	13	49 11.93	133 40.42			1508.				7.6139 32.5950
			0227	EN	13	49 12.00	133 40.57							
23	P16	CTD	0707	BE	14	49° 16.86	134° 40.05		3677	data starts at 1346.				Deep CTD
23	P16	CTD	0758	BO	14	49° 16.80	134° 39.75			3664				Loops taken
23	P16	CTD	0841	EN	14	49° 16.97	134° 40.12							
23	P16	BONGO		BO	15	49 17.08	134 39.96			150.				
23	P16	ROS	1735	BE	16	49° 17.03	134° 40.01		3675					Shallow Rosette
23	P16	ROS	1742	BO	16	49° 17.02	134° 39.96			403				Winch blew changed to the other
23	P16	ROS	1806	EN	16	49° 16.92	134° 39.86				30-46	17		74511 32,6069

CAST TYPE - BOT - bottle 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

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

POSITION CODE - RAD - RADAR GPS - GLOBAL LOR - LORAN

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1998		Feb.		J.P. Tully		9803		5		OF				
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
23	P17	CTD	22:59	BE	17	49 20.95	135 40.12							7.2386 32.5449
23	P17	CTD	23:25	BO	17	49 21.04	135 40.37							
23	P17	CTD	23:43	EN	17	49 21.10	135 40.47							
23	P17	LOOPS	23:22			49 21.03	135 40.30							LOOPS TAKEN
24	P18	CTD	04:18	BE	18	49 26.09	136 39.92		3870					Loops taken @ 3min wait.
24	P18	CTD	04:39	BO	18	49 26.03	136 39.92			1508				CTD cage hit A frame on recovery.
24	P18	CTD	04:58	EN	18	49 25.98	136 39.82							7.1336 32.5879
24	P19	CTD	10:53	BE	19	49 30.01	137 39.98		3965					6.8011 32.6419
24	P19	CTD	11:15	BO	19	49 30.02	137 40.07			1502				
24	P19	CTD	11:35	EN	19	49 30.05	137 40.21							
24	P19	LOOPS	10:59			49 30.08	137 39.95							LOOPS TAKEN
24	P20	BOT	17:40	EN		49 ?	138 ?							Go-Flas for Michael, Tara, David
24	P20	USW	17:28	EN		49 33.970	138 40.300		4005					Loops
24	P20	BOT	~1800	BE		49 33.980	138 39.930		4004					Go-Flas for iron, Keith

CAST TYPE - BOT - bottle 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

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

POSITION CODE - RAD - RADAR
GPS - GLOBAL
LOR - LORAN

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR 1998			MONTH FEBRUARY			SHIP JOHN P. TULLY				CRUISE 9803				PAGE 6 OF	
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS	
24	P20	ROS	20:49	BE	20	49° 34.03	138° 39.98		4003						
24	P20	ROS	20:59	BO	20	49° 33.96	138° 39.94			400	47-63	17			
24	P20	ROS	21:21	EN	20	49° 33.96	138° 40.03								
25	P20	BONGO	02:30	BO	21	49° 33.97	138° 40.10								
25	P20	CTD	02:40	BE	22	49° 33.96	138° 40.09		4001					Deep CTD cast	
25	P20	CTD	03:31	BO	22	49° 33.87	138° 40.13			4018				6.5413 32.6615	
25	P20	CTD	04:18	EN	22	49° 33.71	138° 40.06								
25	P21	CTD	09:39	BE	23	49° 38.01	139° 39.93							See over →	
25	P21	CTD	10:05	BO	23	49° 37.99	139° 39.94							Cable kinked	
25	P21	CTD	10:22	EN	23	49° 37.99	139° 39.99							6.5678 32.6894	
25	P22	CTD	15:55	BE	24	49° 41.99	140° 39.98		3936					Loops Taken	
25	P22	CTD	16:25	BO	24	49° 41.76	140° 40.18		3987	1505				Loops taken EN 1555	
25	P22	CTD	16:49	EN	24	49° 41.69	140° 39.95		3991					6.3132 32.6662	
25	P23	CTD	21:27	BE	25	49° 46.04	141° 40.00							6.2822 32.6667	
25	P23	CTD	21:55	BO	25	49° 46.08	141° 40.06							LOOPS TAKEN 21:47	
														49 46.03	
														141 40.00	

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW - sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

Weds Feb 25, 1:30 am (PST)

Cast # 23, Station P21. Inspected CTD & winch before cast, found winch cable to be kinked badly in at least 3 places, fairly close to the CTD.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR 1998			MONTH Feb.			SHIP TULLY				CRUISE 9903				PAGE 7	OF
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS	
25	P23	CTD	2214	EN	25	49 46.12	141 40.10								
26	P24	CTD	0251	BE	26	49 50.28	142 39.96		4021						loops @ 0250
		CTD	0315	BO	26	49 50.29	142 39.88			1503,					6.4429 32.7002
		CTD	0333	EN	26	49 50.37	142 39.92								
26	P25	CTD	0809	BE	27	49 59.99	143 36.27		4184						loops taken
26	P25	CTD	0837	BO	27	50 0.08	143 36.41								6.1183 32.7218
26	P25	CTD	0852	EN	27	50 0.08	143 36.32								
26	P35	CTD	1222	BE	28	49 59.78	144 18.16		4187						loops taken at 1221
26	P35	CTD	1246	BO	28	49 59.78	144 18.19			1504,					5.6830 32.7215
26	P35	CTD	1306	EN	28	50 00.02	144 18.18								
26	FD*	MOR	1652	BE	29	50 00.01	144 45.00		4240						
26	FD*	MOR	1804	EN	29	50 00.04	144 45.03								
26	AR	MOR	1920	RE		50 00.530	144 55.670		4268						RELEASE AR mooring
"	"	MOR	2230												Finished mooring recovery

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW - sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1998		FEB		TULU		9803		8						
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
27	P26	ROS	0534	BE	30	50° 00.06	145° 00.01		4268					Deep Rosette
27	P26	ROS	0648	BO	30	50° 00 18	144° 59.92			4293	64-87	24		Transmissometer poor connection very noisy
27	P26	ROS	0815	EN	30	50° 00 32	144° 59.94							5.4348 32.6639
27	P-26	BONGO	0830	BE	31	50° 00.07	145° 00.00			150				
27	P26	ROS	1813	BE	32	50° 00.01	144° 59.97		4288		88-104			Shallow rosette
27	P26	ROS	1819	BO	32	49° 59 98	144° 59 98			401	NO SAMPLING DONE	17		Loops @ 1819
27	P26	ROS		EN	32									#13 would not trigger
														Start new cast @ 30m
27	P26	ROS	1842	BO	33	49° 59.98	145° 00.06			continuation of cast 32.		30m		Surface
27	P26	ROS	1153	BO	34/35									
27	P26	NORPE	1235	BO										
27	P26	SCOR	1250	BO										
27	P26	SCOR	1302	BO										
27	P26	NORPE	1313	BO										
28	P26	ROS	0344	BE	36	50° 00.04	144° 59.83		4286					POC Rosette
28	P26	ROS	0409	BO	36	50° 00.03	144° 59.79			1505				5.4405 32.6631

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW - sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

March 1 UTC

1614 Seawater pump changed from upper pump to lower pump.

1900 Completed FID recovery. One trap broken on recovery

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR			MONTH			SHIP			CRUISE			PAGE		OF	
1998			Feb./March			JOHN P TULLY			9803			9			
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS	
28	P26	ROS	0436	EN	36	50 00.01	144 59.84		4284						
28	P26	GO FLO3	0637	EN		49 59.950	144 59.800		4285					4 Go-flos for Keith 600, 400, 300, 200 m	
28	P26	ROS	1729	BE	37	49 59.93	144 59.99		4285		88-104			2nd try, shallow rosette	
28	P26	ROS	1736	BO	37	49 59.95	145 00.12			403		17			
28	P26	ROS	1759	EN	37	49 59.93	145 00.28								
28	P26	BONGO	1018	BO	38/39	49 59.620	145 00.940								
		SCOR	1320	BO	39	49 59.580	145 00.080								
		NORPAC	1313	BO	39	49 59.850	145 00.690								
28	P26	FD*	1742	MO										MESSENGER FD* RELEASED	
3	P12	ROS	1613	BE	40	48 58.16	130 40.06		3045					Shallow Rosette	
3	P12	ROS	1619	BO	41	48 58.16	130 40.14				105-121	17		Loops taken	
3	P12	ROS	1642	EN	41	48 58.19	130 40.11							Oops! Did not include FD...	
3	P12	Bongo	1654	BO	42	48 58.13	130 40.03			150					

CAST TYPE -

BOT -

bottle 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

DE -

deployment time

MR -

messenger release

RE -

recover mooring

POSITION CODE -

RAD -

RADAR

GPS -

GLOBAL

LOR -

LORAN

3 March

21:11 UTC GPS & Thermosalinograph working again. Bad data from —

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR			MONTH			SHIP			CRUISE			PAGE		OF	
1998			MARCH			JOHN P. TULLY			9803			10			
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS	
3	P12	CTD	1733	BE	43	48 58.17	130 40.19		3032					A minute or so @ surface	
3	P12	CTD	1753	BO	43	48 58.09	130 40.34			1506				8.6825 32.5914	
3	P12	CTD	1811	EN	43	48 58.07	130 40.40								
3	P11	CTD	20:35	BE	44	48 55.960	130 10.070		2790					CPS not working properly,	
3	P11	CTD	21:01	BO	44	48 56.020	130 10.270							no position info. in header	
3	P11	CTD	21:20	EN	44	48 56.070	130 10.440							8.4970 32.5976	
3	P10	Bongo	2342		46	48 53.63	129 40.01								
3	P10	CTD	2358	BE	45	48 53.60	129 40.02		2680					loops taken @ 00:07	
4	P10	CTD	0021	BO	45	48 53.70	129 40.08			1503				8.9215 32.5830	
4	P10	CTD	0045	EN	45	48 53.79	129 40.17								
4	MP09	CTD	0256	BE	46	48 51.37	129 09.92		2376					loops @ 0254	
		CTD	0319	BO	46	48 51.42	129 09.85			1503				8.9642 32.5744	
4	MP09	CTD	0339	EN	46	48 51.43	129 09.83								
4	P8	CTD	0546	BE	47	48 49.00	128 39.97		2552					loops @ 0545	
4	P8	CTD	0610	BO	47	48 49.12	128 40.00			1505				Bad spike @ beginning	
4	P8	CTD	0629	EN	47	48 49.11	128 39.98							8.8860 32.4774	

CAST TYPE -

BOT - bottle 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

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

POSITION CODE -

RAD - RADAR
GPS - GLOBAL
LOR - LORAN

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR 1998			MONTH MARCH			SHIP JOHN P. TULLY			CRUISE 9803			PAGE 11 OF		
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
4	P8	Bongo	0653	BO	48	48 48.97	128 39.90		2526	166.				4 25 wire out 166
4	P7	CTD	0909	BE	49	48 46.61	128 09.99							Datafile name 98030048
4	P7	CTD	0936	BO	49	48 46.620	128 10.07			1503				8.9385 32.4566
4	P7	CTD		EN	49									renamed 98030049
4	P6	CTD	1159	BE	50	48 44.62	127 39.92		2582.					loops taken @ 11:58
4	P6	CTD	1225	BO	50	48 44.63	127 39.98			1503				8.8799 32.5465
4	P6	CTD	1243	EN	50	48 44.62	127 40.04							
4	P6	Bongo	1253		51	48 44.56	127 40.03			160.				1
4	P5	CTD	1510	BE	52	48 41.50	127 09.77		2113.					loops taken @ 15:08.
			1531	BO	52	48 41.42	127 09.86			1503.				10.5046 32.5925
	P5	CTD	1549	EN	52	48 41.43	127 10.04							
4	P4	Bongo	1812	BO	53	48 39.01	126 40.16		1335	152				Wets had to stay @ surface a couple of minutes.
4	P4	CTD	1837	BE	54	48 39.01	126 40.08		1335					Loops @ 1837
4	P4	CTD	1859	BO	54	48 38.99	126 40.18			1306				Bad spike @ surface again
4	P4	CTD	1914	EN	54	48 38.98	126 40.34							10.7383 32.5578

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW -

sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH				SHIP				CRUISE				PAGE		OF	
1998		March				Tully				9803				12		12	
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS			
4	P3	CTD	20:54	BE	55	48 37.48	126 20.03	808	808					10.2215 32.5798			
4	P3	CTD	21:09	BO	55	48 37.50	126 20.14			812				100PS TAKEN 21:02			
4	P3	CTD	21:23	EN	55	48 37.51	126 20.18							Pressure spike →			
4	P2	Bongo	23:07	BO	56	48 35.97	126 00.03										
4	P2	CTD	23:20	BE	57	48°36.02	125°59.870		117					11.2521 32.4307			
4	P2	CTD	23:23	BO	57	48°36.020	125°59.860							To 100 m			
4	P2	CTD	23:27	EN	57	48°36.02	125°59.85										
5	PLB5	Bongo	0039		58	48 40.63	125 46.41		70	80.							
		CTD	0053	BE	59	48 40.58	125 46.39		75								
5	P1	Bongo	0225		60	48 34.50	125 30.02			110.	bongo net caught ship.				net torn, bar bent		
5		CTD	0246	BE	61	48 34.54	125 30.08		118.	109.				10.9012 32.0882.			
5	PLB7	Bongo	0328		62	48 31.98	125 35.52		80	70.							
5		CTD	0344		63	48 31.98	125 35.51			67.							

CAST TYPE -

BOT -

bottle cast

ROS -

rosette

USW -

sea water loop

TIME CODE -

BE

beginning time of cast

CS

end time of cast

CAST TYPE -
 BOT - bottle 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

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

POSITION CODE -

RAD - RADAR
 GPS - GLOBAL
 LOR - LORAN

P3: Consistently experiencing a pressure spike when opening a file in Seavue. The CTD works correctly when the original file is closed, and a new one is opened and overwritten over the original file.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH				SHIP				CRUISE				PAGE		OF	
1998		March				Tully				9803				13			
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS			
5	PLA1	CTD	0603	BE	64	48° 29.51	126° 07.15		199								
5	A1	CTD	0607	BO	64	48° 29.50	126° 07.13			180							
5	A1	CTD	0609	EN	64	48° 29.50	126° 07.12										
5	PLA1	Bongo	0625	BO	65	48° 29.52	126° 07.02		194	210 w. out 185							
5	PLA3	CTD	0733	BE	66	48° 24.62	126° 15.74		921								
5	PLA3	CTD	0748	BO	66	48° 24.65	126° 15.50			905							
5	PLA3	CTD	0805	EN	66	48° 24.83	126° 15.35										
5	PLA3	Bongo		BO	67	48° 24.57	126° 15.6			250							
5	PLA2	Bongo	0937	BO	68	48° 22.74	126° 03.58										
5	PLA2	CTD	0953	BE	69	48° 22.74	126° 03.77		350								
5	PLA2	CTD	1001	BO	69	48° 22.75	126° 03.80			336							
5	PLA2	CTD	1008	EN	69	48° 22.74	126° 03.74										
	PLC3	Bongo	1302		70	48° 23.48	125° 20.82		121	110							
		CTD	1319		71	48° 23.49	125° 20.77		124								

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW -

sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

[illegible]