

CRUISE
NUMBER

97-15

DAILY LOG
INSTITUTE OF OCEAN SCIENCES
OCEAN PHYSICS

DATE

27 Aug - 17 Sept. 97

VESSEL

J.P. Tully

PROJECT

2nd CTD make: Seabird model: _____ serial no.: 0443
Temperature sensor model: _____ serial no.: 2095
coefficients: slope: _____ offset: pump 1602
Conductivity sensor model: _____ serial no.: _____
coefficients: slope: _____ offset: _____
Pressure sensor range: _____ psi serial no.: _____
coefficients: FSP: _____ dB offset: pump secondary 1604
Transmissometer model: _____ serial no.: temp secondary 2142
coefficients: slope: _____ offset: _____
Winches:

1. make: _____ model: 329 serial no.: 1307 use: CTD ①
2. make: _____ model: 329 serial no.: 1482 use: CTD ②
3. make: _____ model: _____ serial no.: 1432 use: pydco
4. make: _____ model: 455 serial no.: 1151 use: moving
5. make: _____ model: _____ serial no.: _____ use: _____
6. make: _____ model: _____ serial no.: _____ use: _____
7. make: _____ model: _____ serial no.: _____ use: _____

Salinometer: make: _____ model: 8410 serial no.: 59724
SAIL System:

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:

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: _____

27 Aug 97 PDT

0840 depart IOS

0924 start ADCP program

1330 arrive fueling jetty, Colwood

1836 depart jetty.

V_2	.739	.728	.722
	.737	.724	
	.738	.722	
			<u>.723</u>

V_6	.005
	.005
	.005

4/9/97

V_2	① .723	.721
	② .720	
	③ .720	

V_6	.005	.004
	.002	
	.003	<u>.003</u>

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1997		08				9715		1						
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
26	S3	ROS	2142	BE	1	48	123	✓	228	22	1-15			
			2149	Bo	1/2	48 35.57	123 30.08	✓						
	S3	ROS	2205	EN	2									
26	SD	CTD	2241	BE	3	48 35.62	123 30.13	✓	228	—	—			YOYO CAST
			2255	EN										
28	JF1	USW	0256			48 15.41	123 30.59	✓		257	510			THIS IS THE BEGINNING LOOPS
28	JF2	USW	0444			48 17.96	124 00.00	✓		299				LOOPS TAKEN.
28	JF3	USW	0648			48 27.00	124 30.00			450				LOOPS TAKEN
28	P1		1051	BE	4	48 34.58	125 30.07	✓	117					loops taken
28	P1		1055	Bo	5	48 34.58	125 30.07			107				had data on cast 4 d
28	P1		1103	EN	5									
28	P2	CTD	1310	BE	6	48.36.02	126 00.19	✓	117					
28	P2	CTD	1316	Bo	7	48.36.06	126.00.21			112				LOOPS TAKEN
28	P2	CTD	1320	EN	7	48.36.10	126.00.24		118.6					
28	P3	CTD	1454	BE	8	48.37.48	126.20.15	✓	803					LOOPS TAKEN
28	P3	CTD	1508	Bo	9	48.37.56	126.20.34		744	735				
28	P3	CTD	1521	EN	9	48 37.67	126.20.70	GF	804					

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

When using PAR Sensor:

C:\SEASOFT\

0437PAR.COM

Station P4, at 10:26 local, lost communication with the Rosette during the upcast # 11 of the shallow cast. We had fired 11, (had to fire # 11 twice) then fired 12, then it stopped.

SO CAST #10 : Downcast

CAST # 11 : UPCAST 400 m (bot. 1, samp. 16) TO 40 M (bot. 12, samp. 27)

CAST # 12 : { Downcast 0-30
+ upcast 30m (bot. 17, samp 28) TO 0 M (bot. 22, samp 33)

97150010.DAT nwords = 10
 nfreqs = 5
 nroll-words = 4

Cards 10, 11, 12 have wrong config file. I put
correct coefficients in config file 97150010. It will
give wrong sensor serial numbers. Correct sensors
are T_0 2106 T_1 2062
 C_0 1748 C_1 1764.

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1997		08				9715		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
28	P4	ROS	1653	BE	10	48 39.04	126 40.14	✓	1322			12		Shallow cast
28	P4	ROS	1704	BO	11	48 39.04	126 40.18	✓		400	16 - 27	12		Started Pile too early Good data start at 1656
28	P4	ROS	1753	BE	12	48 38.99	126 40.19	✓			28 - 33	6		
28	P4	ROS	1759	EN	12	48 38.98	126 40.17		1325	30				
28	P4	loop	1910			48 39.15	126 40.09							
28	P4		2108	BE	13	48 39.06	126 40.00	✓	1307					PAR sensor on.
	P4		2116	BO	14	48 39.15	126 39.93			400.				
	P4		2125	EN	14									
														PAR sensor removed.
29	P4	ROS	0433	BE	15	48 39.02	126 40.10	✓	1325	13 15				Deep cast
29	P4	ROS	0454	BO	16	48 39.05	126 40.35	✓			34 - 47	14		
29	P4	ROS	0522	EN	16	48 39.13	126 40.72							
29	P5	CTD	0732	BE	17	48 41.52	127 10.06	✓	2093					
29	P5	Loop	0736	EN		48 41.53	127 10.09			1503				
	P5	CTD	0759	BO	18	48 41.46	127 10.12							
	P5	CTD	0830	EN	18									
29	P6	CTD	1050	BE	19	48 44.65	127 39.99	✓	2548					loops taken
29	P6	CTD	1120	BO	20	48 44.63	127 39.86		2548	1500				

CAST TYPE - BOT - bottle cast
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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

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1997		August				9715		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
29	P6	CTD	1147	EN	20	48 44.65	127 40.21	CNV	2548	1500				
29	P7	CTD	1401	BE	21	48 46.68	128 10.07	✓	2507					LOOPS TAKEN 14:03
29	P7	CTD	1428	BO	22	48 46.75	128 10.09			1500				
29	P7	CTD	1456	EN	22	48 47 13	128 10.13		2506					
29	P8	ROS	1714	BE	23	48 49.04	128 40.02	✓	2522					LOOPS TAKEN
29	P8	ROS	1805	BO	24	48 49 17	128 40.16	✓		2505	48-67	20		wrong .CON file used on #23
29	P8	ROS		EN	24									
29	P9	CTD	2256	BE	25	48 51.35	129 09.92	✓	2344.					loops taken. Jimmie
29	P9	CTD	23 23	BO	26	48 51.46	129 09.83		2341.6	1501				
29	P9	CTD	23 48	EN	26	48 51.54	129 09.79		2343.2					
30	P10	CTD	02:06	BE	27	48 53.64	129 40.15	✓	2644					LOOPS TAKEN.
30	P10	CTD	02:34	BO	28	48 54.05	129 39.83			1503				
30	P10	CTD	02:57	EN	28	48 54.42	129 39.88		2720					

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Str P12 cas 31. Had trouble getting STD to work. Communications with system was problem.
cleaned plug and tried again. OK.
Raining hard.

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1997		08				9715		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
30	P11	CTD	0507	BE	29	48°56.02	130 10.18	✓	2759					LOOPS TAKEN
30	P11	CTD	0538	BO	30	48°56.16	130 10.27			1500				
30	P11	CTD	0600	EN	30	48°56.28	130° 10.53		2757					
30	P12		0825	BE	31	48 58.19	130 40.10		2991.					loops taken @ 08:30
			0924	BO	32	48 58.17	130 40.06	✓		3197	68 - 89	22.		20m above bottom.
	P12		1038	EN	32.									
30	P12	ROS	1535	BE	33	48°57.94	130° 39.89	✓	NO READING					Shallow cast
30	P12	ROS	1547	BO	34	48°57.96	130 39.89	✓		402	90-107	18 (+3)		PAR sensor upcast only.
30	P12	ROS	1612	EN	34	48°58.03	130° 40.08							
30	P13	CTD	2020	BE	35	49 02.63	131 40.10	✓	2870.					logs taken @ 20:24.
30	P13		2047	BO	36	49 02.57	131 40.11			1517.				
30	P13		2110	EN	36									
31	P14	CTD	01:09	BE	37	49.07.42	132.40.17	✓						No DEPTH.
31	P14	CTD	01:37	BO	38	49 07.78	132 40.32			1512				LOOPS TAKEN!
31	P14	CTD	02:00	EN	38	49 07.90	132 40.48							

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YEAR			MONTH			SHIP			CRUISE			PAGE		OF	
1997			08 / 09						9715			5			
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	
31	P15	CTD	0607	BE	39	49°11.87	133°39.09	✓	NO READING					LOOPS TAKEN	
31	P15	CTD	0636	BO	40	49°11.85	133°40.27			1502					
31	P15	CTD	0657	EN	40	49°11.90	133°40.37								
31	P16	ROS	1107	BE	41	49°16.98	134°40.16	✓						Loops taken @ 11:11	
31	P16	ROS	12:19	BO	42	49°16.99	134°40.12	✓	3676	3676	108-130	23			
31	P16	ROS	1352	EN	42	49°16.93	134°40.36								
31	P16	ROS	1801	BE	43	49°16.98	134°40.67	✓						Shallow cast	
31	P16	ROS	1808	BO	44	49°16.99	134°39.99	✓		404	131-148			PAR sensor	
31	P16	ROS	1832	EN	44	49°17.02	134°40.06								
1	P17	CTD	01:14	BE	45	49°20.95	135°40.18	✓	NO READING					LOOPS TAKEN 01:19	
1	P17	CTD	01:42	BO	46	49°21.03	135°40.48			1505					
1	P17	CTD	02:03	EN	46	49°21.07	135°40.59								
1	P18	CTD	0617	BE	47	49°25.94	136°40.01	✓	3809					LOOPS TAKEN 0620	
1	P18	CTD	0647	BO	48	49°26.06	136°40.05			1501					
1	P18	CTD	0719	EN	48	49°26.18	136°40.21								

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ctd

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mooring

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bottom time of cast

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end of cast

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deployment time

MR -

messenger release

RE -

recover mooring

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The labels 149-171 were already on the bottles, ready for the deep cast. So we just used the following consecutive numbers for the shallow cast, even though we do it first.

DAILY LOG

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YEAR		1997		MONTH		09		SHIP		JOHN P. TULLY		CRUISE		9715		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						
1	P19	CTD	11:22	BE	49	49	29.97	137	40.18	✓	3901		/				LOOPS TAKEN 11:22					
1	P19	CTD	11:51	BO	50	49	29.74	137	40.13		3901	1500										
1	P19	CTD	12:15	EN	50	49	29.43	137	40.12		3902											
1	P20	ROS	1626	BE	51	49°	34.02	138°	40.11	✓	3937	400.8					LOOPS TAKEN 1647					
1	P20	ROS	1636	BO	52	49°	33.98	138°	40.16	✓	3937		172-189	18			Shallow cast					
1	P20	ROS	1700	EN	52	49°	33.95	138°	40.15		3937		1				PAR sensor					
													See note									
1	P20	ROS	2144	BE	53	49	33.93	138	40.02	✓	3939		↓									
1	P20	ROS	2253	BO	54	49	33.97	138	40.15	✓		4022		149-171	23			Deep cast				
2	P20	ROS	0018	EN	54	49	34.09	138	4.21													
2	P21	CTD	0434	BE	55	49°	37.97	139°	40.04	✓	3931		/				LOOPS TAKEN					
2	P21	CTD	0501	BO	56	49°	37.88	139°	40.20		3932	1501										
2	P21	CTD	0520	EN	56	49°	37.93	139°	40.16		3932											
2	P22	CTD	0943		57	49	41.97	140	40.12	✓	3917						loops taken @ 09:44					
2		1	1013		58	49	41.96	140	40.13			1500.										
2	P22	CTD	1043				49 41.87	140	40.16													

CAST TYPE -

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CTD -
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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
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File 59. wrong depth in head
Right depth in logbook → 4020

DAILY LOG

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YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1997		09		Tully		9715		7						
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
2	P23	CTD	14:49	BE	59	49 45.98	141. 40.05	✓	4020					HUGH DID LOOPS,
2	P23	CTD	1520	BO	60	49.45. 98	141. 40 23		4021	1502				I WROTE IT DOWN:->
2	P23	CTD	1549	EN	60	49.45. 96	141.40 .18		4020					
2	P24	CTD	2016	BE	61	49 50.16	142 40.08	✓	3960					loops taken @ 20'20
			2045	BO	62	49 50.15	142 40.23			1509				data error on speed @ 1100 db.
		CTD	2107	EN										
2		CTD	2308	BE	9901									CTD 0443 lost of
					9901									fluorometer in barrel
3	P25	CTD	0129	BE	63	49 59.94	143 36.27	✓	4118.					loop taken
3	P25	CTD	0158	BO	64	49 59.98	143 36.23			1501				
3	P25	CTD	0222	EN	64	50 00.02	143 36.26		4116					
3	P35	CTD	0542	BE	65	49°59.93	144°18.16	✓	4118					Loops TAKEN
3	P35	CTD	0610	BO	66	49°59.85	144°17.57		4118	1515				- Wrong depth in header. Bad reading by sonar
3	P35	CTD	0631	EN	66	49°59.54	144°17.04		4115					

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BAG EXPERIMENT

BAG	CH.	FREQ.
I	67	156.375
II	70	156.525

OOE IN #2

3 Sept. 97
1814 UTC

49°55.064
144°59.887

20:37 UTC

passed by bag #2, bag missing from float. Winds have been 20-25 kt, gusting to 30 kt in early afternoon.

1520 PDT

zodiac sent to recover OOE #2.

1617

recovered floatation ring only, bag lost.

Cast 69

primary salinity from 110 to 400 bad. Secondary salinity also questionable, but both Co and C, on repeat look good.

file 69 split into #69 down and #70 spent.

1220 distance traveled 1.2 nm

secondary temp. failed during 3rd 10% of cast DYE 63.

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YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1997		09				9715		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
3	P26	ROS	1011	BE	67	49 59.96	145 00.02	✓	4216					
3	P26	ROS	1142	BO	68	49 59.96	145 00.03	✓		4316	190-212			loops taken @ 10:15
3	P26	ROS	1316	EN	68	50 00.00	145 00.11							
3	P26	DOE	1814	DE	—	49 55.06	144 59.89		4208	—				Open Ocean Enclosure in - wind 20-25kt
4	P26	ROS	01:10	BE	69	49 59.72	145 0.50	✓	4217					
4	P26	ROS	01:19	BO	70	49 59.59	145 0.66	✓		400	213-231	19.		NEW FILE NOT STARTED
4	P26	ROS	01:41	EN	70	49 59.40	145 01.05							Bad sal. on down cast.
4	P26	DRF	1439	BE	—	49 59.61	145 01.05	GPS						In Situ Pr. Productivity in the local noon.
4	P26	MOR	1600	RE		50 01.8 N	144° 56.63' W							
5		Pump	0400	BE		49 59.6	144 59.4		4215					AR Mooring IN Clean pump samples for incubations.
5	P26	CTD	1146		DYE01	49 58.62	144 57.63							<25° @ 1.2 knot. 100 lbs of weight. 5 cables distance.
5			1152		DYE02									
5			1216		DYE03	49 57.77	144 57.04							checked CTD for problem with primary salinity.

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dritterUSW -
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5 Sep Finished work at P26 with Bongo tow. Winch counter skipped on down cast,
depth = 330m not 260m as planned

APC Mooring not redeployed - storm coming. Heading south along 145W.

6ms03

74 MS10

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YEAR		MONTH			SHIP			CRUISE					PAGE 9 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
5	P26	NET	1550	EN	—	49 59.97	144 52.78	GPS	4294	320	—			Bongos for Mackos
5	MS01	USW	1951		—	49° 30.00	144° 59.96		4215	Loop				LOOPS TAKEN
5	MS02	CTD	2356	BE	71	49° 00.06	145 00.04	✓	4326					LOOPS TAKEN.
6	MS02	CTD	00:17	BO	72	48° 59.87	145 00.06			1000m				WIND SPD 25 KNOTS, 220° FROM TRUE
6	MS02	CTD	00:32	EN	72	48° 59.78	145 00.12		4327					
6	MS03	USW	0354		—	48° 30.492	145 00.163		4461		5082 5007			LOOPS TAKEN
6	MS04		0725		73	48 00.05	145 00.12	✓	4459.					Loops taken @ 0727
			0744		74	48 00.10	145 00.13							Trans lins cleared.
6	MS05		1130		—									Loops taken ✓
6	MS06	CTD	1440	BE	75	46° 59.87	145° 00.09	✓	4696					LOOPS TAKEN
6	MS06	CTD	1457	BO	76	46° 59.95	144° 59.99		4695	1002				CTD 0437,
6	MS06	CTD	1514	EN	76	47° 00.05	145° 00.23		4694					
6	MS07	USW	1925		—	46° 30.00	145 00.148							LOOPS TAKEN

CAST TYPE -

BOT - bottle cast
CTD - ctd
MOR - mooringROS - 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 castDE - deployment time
MR - messenger release
RE - recover mooring

POSITION CODE -

RAD - GPS
LOR - GLOBAL LORAN

Cast 79: @ ~ 720 m the primary salinity had a really low spike, and then went 18 ~ 32 and stayed there for ~ 20 m.

Sep 7
0500 UTC

Nitrate was depleted at MS10 (45N, 145W) so the Enclosure study could not be done here. Set sail back along 145W.

2020 UTC (1320 PDT) Launched OOE I near MS05. Fe added by carbonyl to surface waters in OOE. Mixing

FLUOROMETER CONFIGURATION

Store Data YES

Data File Path: D:\DATA\9715\ DVE\

Config File Path: C:\SEA SOFT\

Display File : 0443FLUR.DSP

Data File Name: 9715XXXX

Config File 0443FLO.CON

X axis #3: userpoly X

Misc Run PARAMETERS: Store Lat/Long Append to every scan.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1997		09				9715		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
	MS08		2135		77	45 59.91	145 00.12	✓	4256		mind 15-20 @ 300°T			on top of Seamount.
	MS08		2153		78	45 59.92	145 00.18							loops taken @ 21:37
7	MS09	Loops	0113			45 29 703	145 00 114	GPS			4951			Loops TAKEN @ 0113
7	MS10	CTD	0417	BE	79	44° 59.94	144° 59.99	✓	4723					Loops TAKEN
7	MS10	CTD	0436	BO	80	45° 00.01	145° 00.06		4714	1003				Bad primary Sal. at 700b
7	MS10	CTD	0453	EN	80	45° 00.16	145° 00.07		4717					
7	MS05	DOE	2020	BE	—	47 27.04	144 59.125		4609					Enclosure IN
	MS05	ROS	2054	BE	81	47 27.02	144 59.13	✓	4609	400	232-248	17		300ft from enclosure.
	MS05	ROS	2104	BO	82	47 27.02	144 59.03	✓						
			2121.	EN	82.									
8	MS05	CTD	0421		DYEO4	47° 31.008	144.59.929		4581	21	CTD #0443			Shallow cast for Bernad
8	MS05	CTD FL + DYE	0436	BE	DYEO5	47° 30.009	144° 59.990		4576					Fluo disconnected.
8	MS05	CTD + DYE	0656	BO/ END	DYEO5	47° 31.030	145 00.000							CTD + dye injection at 39 m.
														End of cast
8	MS05	CTD	0657	BE	DYEO6	47 31 036	145 00.002		4564					UP CAST OF DYE
8	MS05	CTD	0702	EN	DYEO6	4731.057	14500 019							INJECTION

CAST TYPE -

BOT - bottle cast
CTD - ctd
MOR - mooringROS - 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 castDE - deployment time
MR - messenger release
RE - recover mooring

POSITION CODE -

RAD - RADAR
GPS - GLOBAL
LOR - LORAN

We decided to inject the dye at 39 m since the hose is a bit lower than the pressure sensor and Stu thinks that the dye will sink.

CAST 5: Dye injection Start @ 47° 31.007 144° 59.990

UPØ value @ surface 2.4

Pause downcast @ 30 start heave compensator
then down to 39 m

about cast 5 The hose is getting too close to the propellers.
We have to tape the hose to the wire.

Logging on cast 5 again as they tape the hose to the wire.

Restart cast DYCOS @ 0448 47° 31.013 145° 00.022

UPØ @ 18 dB = 2.29

UPØ @ 32 dB = 2.3

Start heave comp. @ 35 dB.

Start pumping	@ 0456	47 30.996	14500.020	Depth varies from 37 to 40
	@ 0506	47 30.996	14500.018	
	@ 0516	47 31.031	14500.020	
	@ 0526	47 31.013	144.59.985	
	@ 0536	47 31.036	144 59.979	
	@ 0546	47 31.032	144 59.967	→ up to 35 @ 0547
	@ 0556	47 31.002	145 00.042	

@	0606	47 31 022	144 59 960
@	0616	47 31 027	144 59 972
@	0626	47 31 032	145 00 022

@ 0637 47 31 039 144 59 979 → STOP PUMPING DYE

Pump sea water to clean hose Stop at 0654, 47°31' 044, 14500.000

Cleaned primary temperature sensor connectors. Sensor failed on cast #7, OK on cast #8.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1997		09				97 15		11						
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
8	MS05	DRF	0732		—	47 30.998	145 00.029							DEPLOY. DRIFTER.
8		CTD	0741	BE	DYE 7	47 31.00	145 00.03				S.W.			no dye
			0746	EN	DYE 7	47	145 00.							.51564
	MS05	CTD	0843	BE	DYE 8	47 30.93	144 59.97		4575		S.E.			no dye
				EN	DYE 8	47 30.95	144 59.98							.51586/99574
			0907	BE	DYE 9	47 31.03	144 59.91				N.E.			215 ft north east.
			0911	EN	DYE 9	47 31.00	144 59.93							
		CTD	0927	BE	DYE 10	47 31.07	145 00.02				N.W.			300 ft
			0933	EN	DYE 10	47 31.05	144 59.97							
		CTD	0942	BE	DYE 11	47 30.98	144 59.85							middle of dye position
			0949		DYE 11	47 30.92	144 59.76							.51530/99596
		↓	1022	BE	DYE 12	47 31.02	145 00.01							Yoyo casts
		↑	1025	BO										
			1056	EN	DYE 12	47 30.800	144 59 352		4652					
					end of dye casts.									
8	MS05	NETS	1218	BE	—	47.26 24	144 55 76							(2) BONGO CASTS FOR OOE
			1231	EN	—	47 26 187	144 55 731							250m & 30m

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

145 000

59.0

58.0

47 32

47 31

x

47 30

9/9/09

UTC ~~17~~ Tues 0240 cleaned conductivity sensor of SAIL with 10% HCl. Sensor shifted on Sunday.
Readings now look correct.

10 Sep 97

~0010 UTC We found the bag on ODE has been torn down 6-10m. Bag recovered along with APV+ sed trap. Poly fibers were broken fairly evenly around the bag circumference.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1997		09				9715		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
	MS05	ROS	2114	BE	83	4726.15	14453.53	✓	4677					primary cond ok.
		ROS	2122	BO	84	472614	14453.41			400.				CTD 0437
		ROS	2131	EN										
8	MS05	CTD	2324	BE	DYE 13	47 29.99	144 56.07		4660	D/data/dye				CTD cast near
8	MS05	CTD	2327	BO	13					160 m				drifter
8	MS05	CTD	2330	EN	13									
8	MS05	CTD	2338	BE	DYE 14	4729.88	144 56.10		4660					CTD cast near
8	MS05	CTD	2342	BO	14	47 29.85	144 56.07			100m				drifter
8	MS05	CTD	2344	EN	14	47 29.86	144 56.06							
8	MS05	CTD	2359	BE	DYE 15	47 29.79	144 55.66		4663					First tow-yo
9	MS05	CTD	00:19	EN	15	47 29.36	144 55.94							
9	MS05	CTD	02:01	BE	DYE 16	47 29.01	144 55.02		4665					Second tow-yo
9	MS05	CTD	02:30	EN	16	47 28.51	144 56.26							
9	MS05	CTD	02:46	BE	DYE 17	47 28.88	144 56.18		4664					Third tow-yo
9	MS05	CTD	0312	EN	17	47 29.288	144 55.051							
		loop	0251	RE	✓	47 28.97	144 55.89							Loops
10	MS05	DOE	0010	RE	✓	47 26	144 48							Recover Open Ocean Enclosure

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

CAST

DYE 20.

Many depths. We get double peaks.
Max dye data ≈ 15 @ 50 m

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1997		09				9715		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
9	MS05	TOW	0355	BE	DYE18	47°29.171	144°56.755		4661	~95	#4			Start of an expanding square around the drifter.
9	MS05	TOW	0415	EN	DYE18	47 29 453	144 56 832							WE SAW THE DYE!!
9	MS05	TOW	0424	BE	DYE19	47°29.600	144°56.531			20 to 60	#5			Expanding square around where we saw it.
9	MS05	TOW	0453	EN	DYE19	47°29.330	144°57.429		4661					SAW IT AGAIN, smaller signal.
9	MS05	TOW	0513	BE	DYE20	47°29.409	144°56.950				#6			LINE AT 90° OF DYE18 and 19.
9	MS05	TOW	0537	EN	DYE20	47°29.944	144 57.795							SAW GOOD SIGNAL.
9	MS05	TOW	0555	BE	DYE21	47°29.719	144°58.216				#7			Line ⊥ to 6, to 4,5 One peak @ 35, 46 Best cast so far, up to >10.
9	MS05	TOW	0631	EN	DYE21	47.30.358	144.56 718							
9.	MS05	TOW	0724	BE	DYE22	4730.14	144 57.12		4657.		#8			050° heading
			0750			4730.79	144 56.19							Very weak signal.
		TOW	0756		DYE23	4730.67	144 56.09				#9.			1.6 knots 225°

CAST TYPE -

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

USW - sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
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recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

Sept 9

1300

cleaned plugs on primary cond. again, after Cast #85/86 showed bad primary cond.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1997		09				9715		14						
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
	MS05	Tow	0835		DYE 24.	47 30.43	144 57.01				#10			no dye
		Tow	0857		DYE 25	47 30.88	144 56.35				#11.			strong dye signal
		Tow	0921		DYE 26	47 30.70	144 55.98				#12.			strong signal.
		Tow	0937		DYE 27	47 30.95	144 56.14				#13			strong signal.
		Tow	1006		DYE 28	47 30.74	144 55.36				14.			largest signal
		CTD	1011		DYE 29	47 30.74	144 55.48							vertical cast
9	MS05	CTD	1954	BE	85	47 26.34	144 49.29	✓	4671					primary cond. no good secondary cond. noisy CTD 3443
9	MS05	CTD	1959	BO	86	47 26.35	144 49.30			418m				
9	MS05	CTD	2006	EN	86	47 26.35	144 49.30							

CAST TYPE - BOT - bottle cast
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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

At ~ 2300 local on Sep. 9: Found the dye drifter.

We will start an expanding spiral around the drifter to localize the patch with respect to the drifter, then they will have to shut off the engines again...

Clear double peak on way $\downarrow$ and on way $\uparrow$

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1997		9		TULLY		9715		15						
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
10	MS05	TOW	0636	BE	DYE30	47° 28.834	144° 52.705	✓	4770					Dye survey, day 2. Trying to locate the dye by Ⓢ around drifter.
10	MS05	TOW	0645	EN	DYE30	47 28 860	144 52.102							GOT THE DYE 1st TIME DOWN!
10	MS05	TOW	0650	BE	DYE31	47 28.910	144 52.073	✓						
			0718	EN		47 28.83	144 53.23							
		TOW	0728	BE	DYE32	47 29.06	144 53.12	✓						
		TOW	0753	BE	DYE33	47 29.02	144 51.63	✓						returning to dye spot.
10		TOW	0825		Seawater loop pump stopped to clean drain lines.									
		CTD	0838	BE	DYE34	47 28.90	144 52.75	✓						dye
		CTD		BE	DYE35	47 28.73	144 52.09	✓	4669	75.				no dye
		CTD	0924	BE	DYE36	47 28.54	144 51.60	✓						no dye
10	MS05	TOW	1124	BE	DYE37	47 28.55	144 51.24	✓	4668					
10	MS05	TOW	1153	EN	DYE37	47 28.66	144 52.11							
10	MS05	TOW	1154	BE	DYE38	47 28.66	144 52.11	✓						
10	MS05	TOW	1202	EN	DYE38	47 28.64	144 52.40							

YEAR			MONTH			SHIP			CRUISE			PAGE		OF	
1997			09			J.P Tully			9715			16			
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE		LONGITUDE	POSITION CODE ENV	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
16	MS05	TOW	12:10	BE	DYE39	47 28.65	144 52.42		✓						
10	MS05	TOW	12:31	EN	DYE39	47 28.91	144 51.55								
10	MS05	TOW	12:35	BE	DYE40	47 28.91	144 51.59		✓						
10	MS05	TOW	12:59	EN	DYE40	47 29.26	144 52.48								
10	MS05	TOW	13:04	BE	DYE41	47 29.26	144 52.32		✓						
10	MS05	TOW	13:25	EN	DYE41	47 28.95	144 51.57								
10	MS05	TOW	13:28	BE	DYE42	47 29.01	144 51.52		✓						
10	MS05	TOW	13:58	EN	DYE42	47 29.56	144 52.52								
10	MS05	TOW	14:05	BE	DYE43	47 29.55	144 52.02		✓						
10	MS05	TOW	14:29	EN	DYE43	47 29.13	144 51.23								
10	MS05	TOW	14:40	BE	DYE44	47 29.22	144 51.08		✓						
10	MS05	TOW	15:01	EN	DYE44	47 29.804	144 52.033								
10	MS05	TOW	15:08	BE	DYE45	47 29.928	144 51.889		✓						
10	MS05	TOW	15:35	EN	DYE45	47 29.332	144 50.717								
10	MS05	TOW	15:43	BE	DYE46	47 29.510	144 50.869		✓						
10	MS05	TOW	16:10	EN	DYE46	47 30.202	144 51.806								
10	MS05	TOW	16:16	BE	DYE47	47 30.359	144 51.669		✓						
10	MS05	TOW	16:44	EN	DYE47	47 27.694	144 50.416			4666					Last line of Day 2

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

10 Sep 1740 Zodiac over for Fe sampling by pump 47 26.6N 144 51.2W

Cable flushed with fresh water from 4700 to 3000 meters.

FIRST DYE CAST, DYE48: Fluorometer noise VERY low, ~ 1.6
~~P~~ salinity² sensors wrong.

T^o sensor failed at 0424, Cast DYE49 Stop the cast

Primary T^o sensor failed but secondary T^o is ok so we display that one.
Still no dye

CAST 50 there is a signal at 70 m. Dye?
↳ First line down

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1997		09		Tully		9715		17						
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
10	MS05	ROS	2032	BE	87	4730.05	14459.96	✓	4632					down is 87+89
		ROS		BE	88			✓		4720				Salinity, first primary + secondary
10	MS05	ROS	2204	BO	89	4729.99	14459.97	✓			249-272	24		
		ROS	2337	EN	89									
														#90 not used
11	MS05	TOW	0321	BE	DYE48	47°27.823	144°50.223	✓	4670	21-65				First tow yo of 3rd night. ⊙ around drifter
11	MS05	TOW	0359	EN	DYE48									
11	MS05	TOW	0401	BE	DYE49	47°27.416	144°49.186	✓						primary TOW sensor failed
11	MS05	TOW	0427	EN	DYE49	4728	14450							
11	MS05	TOW	0459	BE	DYE50	47°27.691	144°50.527	✓		20-90				cut the line before it gets too big. No dye
11	MS05	TOW	0537	EN	DYE50	47°28.335	144°49.218							
11	MS05	TOW	0538	BE	DYE51	47°28.350	144°49.229	✓						First sig of dye
11	MS05	TOW	0603	EN	DYE51	47°28.372	144°50.345							
11	MS05	TOW	0606	BE	DYE52	47°28.412	144°50.487	✓						Dye signal
11	MS05	TOW	0630	EN	DYE52	47°28.67	144°49.39							
11	MS05	TOW	0631	BE	DYE53	47°28.663	144°49.343	✓						
11	MS05	TOW		EN	DYE53									no dye

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

after cast 57 brought CTD on board.

cleaned fluorimeter & ~~found~~
found disconnected hose.

might have caused noisy salinity data.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1997		09				9715.		18						
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
		TOW	0737		DYE 34	47 28.66	144 50.76	✓						dye start of W & E run
		TOW	0823	BE	DYE 55	47 28.94	144 48.48	✓						270° T
			0855	EN		47 28.96	144 49.94							
		TOW	0907	BE	DYE 56	47 29.28	144 49.72	✓						
			0936			47 29.23	144 47.82							
			0948		DYE 57	47 29.69	144 47.56	✓						cleaned fluorimeter
		TOW	1034		DYE 58	47 29.84	144 49.42							fixed disconnected tube
			1101		58	47 29.85	144 47.63	✓						strongest dye signal
		TOW	1116	BE	59	47 30.21	144 46.90	✓						
			1215	EN	59	47 30.24	144 49.43							HOSE CONNECTIONS CHECKED
11	MS05	TOW	1230	BE	60	47 30.41	144 48.74	✓						
11	MS05	TOW	1300	EN	60	47 30.18	144 47.37							
11	MS05	TOW	1301	BE	61	47 30.12	144 47.39	✓						
11	MS05	TOW	1335	EN	61	47 28.95	144 47.57							
CAST TYPE - BOT - bottle cast ROS - rosette USW - sea water loop TIME CODE - BE - backscatter														

CAST TYPE -

BOT -

CTD -

MOR -

bottle cast

ctd

mooring

ROS -

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 cast

DE -

MR -

RE -

deployment time

messenger release

recover mooring

POSITION CODE -

RAD -

GPS -

LOR -

RADAR

GLOBAL

LORAN

Thursday 11, 8h50 local.

Recovered the dye drifter.

Leaving shortly after to go back to Station D (around 9h00 local)

Sept. 12

CTD 0443 cleaned primary cond. and temp connectors, replaced pump tubing (it was 3 cm too short)
found piece of jelly fish in intake tube of primary temp.

50°01, 807 N 144°56, 663 W @ 1935 UTC

Anchor in the water

Cast 93 CTD 0443 Both temperatures OK, primary conductivity reads low (I think it has constant offset.)

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH			SHIP		CRUISE				PAGE		OF	
1997		Sept			Tully		9715				19			
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
11	MS05	TOW	13:36	BE	DYE62	47 28.92	144 47.59	✓						
11	MS05	TOW	14:08	EN	DYE62	47 29.43	144 46.84							
11	MS05	TOW	14:09	BE	DYE63	47 29.43	144 46.84	✓						
11	MS05	TOW	14:38	EN	DYE63	47 28.62	144 46.59							
11	MS05	TOW	14:38	BE	DYE64	47 28.58	144 46.60	✓						
11	MS05	TOW	15 05	EN	DYE64	47.28.467	144.47.830		4671					
12	MP26	HYDRO	1300	BE		50.00.00?	145.00.00?							6 GO. FLO + PUMPING
12	MP26	MOR		DE	—	50 01	144 56		4230					AR Mooring
12	MP26	ROS	1759		91	50 02.52	144 54.94	✓	4231					loop sample CTID 0437
12		ROS	2007		92	50 02.51	144 54.93	✓		400	273-290	18		
12	MP26	MOR	2322	DE		50 02.44	144 56.13							AR MOORING FINAL
12	MP26	CTD	2355	BE	93	50 02 63	144 55.02	✓	4229.8	primary and large diff.				CTD #0443
13	MP26	CTD	00 12	BO	94	50 02.61	144 54.96			1000m				
13	MP26	CTD	00 25	EN	94	50 02.57	144 54.99							
13	MP35	USW	0439			49 59.950	144 18.200							LOOPS TAKEN
	P25	USW	0725			49 59.96	143 36.06		4131					loops taken
13	P24	CTD	11:37	BE	95	49 50.20	142 39.99	✓	3982					Might have wrong
13	P24	CTD	11:53	BO	96	49 50.17	142 40.06			1000m				brakes

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

Sept 13 Saturday

P24 Zodiac sampling, Keith + Lyle

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1997		09		J. R. HULLY		9715		20						
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
13	P24	CTD	12:09	EN	96	49 50.21	142 39.95							
13	P23	CTD	17:28	BE	97	49° 42.936	141° 40.140	✓	4049					Loops TAKEN
13	P23	CTD	17:48	BO	98	49° 46.059	141° 40.264			1003				
13	P23	CTD	18:06	EN	98	49° 46.133	141° 40.324		4048					
13	P22	CTD	23:04	BE	99	49 42.05	140 40.00	✓	3943.					Trans. lens cleaned.
13	P22	CTD	23:21	BO	100	49 42.04	140 39.97			1002				loops taken @ 23:10.
13	P22	CTD	23:35	EN	100	49 42.02	140 40.05							
14	P21	CTD	04:08	BE	101	49° 37.944	139° 39.985	✓	3956					Loops TAKEN
14	P21	CTD	04:30	BO	102	49° 37.970	139° 40.463			999				
14	P21	CTD	04:44	EN	102	49° 37.927	139° 40.665		3957					
14	P20	USW	08:51			49 34.03	138 40.46		3962.					loop taken.
14	P19		12:44											pumps
14	P19	CTD	13:03	BE	103	49 29.82	137 40.07	✓	3928					LOOPS TAKEN
14	P19	CTD	13:18	BO	104	49 29.75	137 40.32			1000m				
14	P19	CTD	13:33	EN	104	49 29.67	137 40.43							

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

Stn P15 CTD primary conductivity signal noisy.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH			SHIP			CRUISE				PAGE		OF	
1997		SEPT			J.P. TULLY			9715				21			
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	
14	P18	CTD	1742	BE	105	49° 26.018	136° 39.973	✓	3834					Loops TAKEN	
14	P18	CTD	1759	BO	106	49° 26.004	136° 40.214			1003					
14	P18	CTD	1815	EN	106	49° 25.982	136° 40.463		3833						
14	P17	CTD	2336	BE	107	49° 21.00	135° 39.97	✓	3494					Loops TAKEN.	
14	P17	CTD	2356	BO	108	49° 20.99	135° 40.00			1002					
15	P17	CTD	0011	EN	108	49° 21.00	135° 39.99								
15	P16	CTD	0506	BE	109	49° 17.038	134° 39.941	✓	3636					Loops TAKEN	
15	P16	CTD	0524	BO	110	49° 17.161	134° 40.169			1005					
15	P16	CTD	0538	EN	110	49° 17.308	134° 40.388		3635						
15	P15	CTD	1013	BE	111	49° 11.99	133° 39.99	✓	3412					T/S 1616 CTD 1602	
	P15	CTD	1027	BO	112	49° 11.95	133° 39.96			1002				Loops taken @ 10:14	
	P15	CTD	1040	EN	112	49° 11.96	133° 39.96								
15	P14	CTD	1440	BE	113	49° 07.39	132° 39.91	✓	3320						
15	P14	CTD	1503	BO	114	49° 07.528	132° 40.304			999				Loops TAKEN	
15	P14	CTD	1518	EN	114	49° 07.589	132° 40.417		3328						
15	P13	CTD	2000	BE	115	49° 02.58	131° 39.97	✓	3017					Loops taken @ 20:03	
15	P13	CTD	2018	BO	116	49° 02.56	131° 39.99			1001				20 min sampling.	
15	P13	CTD	2034	EN	116	49° 02.61	131° 40.07							pump sampling	

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

YEAR		MONTH			SHIP			CRUISE			PAGE		OF	
1997		09			J.P. TULLY			9715			22			
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
16	MP12	CTD	01:30	BE	117	48 58.25	130 40.35	✓	2983.					LOOPS TAKEN.
16	MP12	CTD	01:48	BO	118	48 58.06	130 40.50			1000				
16	MP12	CTD	02:09	EN	118	48 57.94	130 40.62							
16	P11	CTD	0449	BE	119	48°55.880	130° 09.955	✓	2758					LOOPS TAKEN
16	P11	CTD	0507	BO	120	48° 55.704	130° 10.167			1001				
16	P11	CTD	0523	EN	120	48° 55.462	130° 10.431		2754					
16	P10	CTD	0831	BE	121	48 53.60	129 40.01	✓	2647					
16	P10	CTD	0850		122	48 53.64	129 39.90							
16	P10	CTD	0904											
16	P9	CTD	11:24	BE	123	48 51.57	129 10.02	✓	2350					LOOPS TAKEN
16	P9	CTD	11:39	BO	124	48 51.47	129 9.90			1001				
16	P9	CTD	11:53	EN	124	48 51.53	129 9.83							
16	P8	CTD	1410	BE	125	48 49.20	128 39.74	✓	2520					
16	P8	CTD	1429	BO	126	48 49.14	128 36.62			996				LOOPS TAKEN.
16	P8	CTD	1441	EN	126	48 49.17	128 36.50							

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

The CTD cable is cut in the winch. So we switch to the other winch.

Stn P3 CTD died @ 26 db, error light on deck unit.

Stn P2 error light on frequently. When CTD on deck it was found missing centre 6 pin plug. Two casts done with pins open to seawater. One pin completely dislodged. CTD requires new 6 pin bulkhead connector. (Pylon connector)

Unit was removed from Rosette and plug not put on bulkhead connector.

CTD data for casts 133 to 136 questionable.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH				SHIP				CRUISE				PAGE	
1997		09				J.P. TULLY				9715				23 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	
16	P7	USW	1748	BE	—	48 46.14	128 10.00	CNV						LOOPS TAKEN.	
16	MP6	CTD	1958	BE	127	48 44.60	127 39.97	✓	2551,					loops taken @ 20:04	
16	P6	CTD	2015	BO	128	48 44.61	127 40.02			1002,					
16	P6	CTD	2027	EN	128	48 44.608	127 39.974								
16	P5	CTD	2232	BE	129	48 41.51	127 09.98	✓	2099,					loop taken 22:35	
16	P5	CTD	2249	BO	130	48 41.49	127 09.97			1001,					
17	P4	ROS	0114	BE	131	48 38.81	126 39.79	✓	1354						
17	P4	ROS	0135	BO	132	48 38.58	126 39.82	✓		1327	291-310	20.		LOOPS TAKEN	
17	P4	ROS	02:06	EN	132	48 38.31	126 39.67								
17	P3	CTD	05 11	BE	133	48 37.278	126 20.346	✓	869					Change winch ↻	
17	P3	CTD	0523	BO	134	48 37.235	126 20.569		848	839				LOOPS TAKEN	
17	P3	CTD	0540	EN	134	48 37.173	126 20.807		845					CTD died @ 26 dB	
17	P2	CTD	0723	BE	135	48 36.05	126 00.09	✓	120.					emr light on frequently	
		CTD	0728		136	48 36.11	126 00.09			120					
	P1	USW	0953		—	48 34.54	125 29.68		113,				no CTD, damaged		
CAST TYPE -		BOT -	bottle cast	ROS -	rosette	USW -	sea water loop	TIME CODE -	BE -	beginning time of cast	DE -	deployment time			

CAST TYPE -

BOT - bottle cast
CTD - ctd
MOR - mooringROS - rosette
NET - net haul
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TIME CODE -

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BO - bottom time of cast
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RE - recover mooring

POSITION CODE -

RAD - RADAR
GPS - GLOBAL
LOR - LORAN