Note copied from file folder:

Time in PST and is when we put the CTD in the water. The time of the first sample often differs. Also, bottom depths were converted from fathoms from the echo sounder and, when the bottom depth exceeded the sounder's capabilities, from estimates from the charts.

Local Time / Actual Local Time

99-19

DAILY LOG — OCEAN PHYSICS — INSTITUTE OF OCEAN SCIENCES

YEAR 1999 | MONTH April | SHIP Nopsa | CRUISE Black Cod Larval Survey 99-19 | PAGE 1 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
14	B6	CTD	2200	BE	1	48 31.6 N	125 16.9 W	GPS	110	100				
	B7		2319		2	48 28.208 N	125 23.237 W		160	140				
15	B8		0037		3	48 24.653 N	125 29.191 W		135	120				
	B9		0152		4	48 21.538 N	125 35.736 W		145	125				
	B10		0310		5	48 17.159 N	125 42.024 W		165	150				
	B11		0436		6	48 14.200 N	125 49.116 W		325	300				surface sample
	B12		0542		7	48 12.261 N	125 52.534 W		540	500				
	B13		1938		8	48 10.629 N	125 55.871 W		800	500				
	B14				9	48 07.856 N	126 01.850 W		1250	500				
16	B15		0021		10	48 03.9 N	126 09.5 W		1580	500				
	B16		0151		11	48 0.06 N	126 17.1 W		1800	500				surface sample
	C12		0520		12	48 15.3 N	126 41.1 W		2500	500				
	C11		2355		13	48 18.555 N	126 24.656 W		1620	500				surface sample
17	C10		0220		14	48 23.743 N	126 18.447 W		1170	500				
	C9		0357		15	48 26.703 N	126 11.190 W		510	375				
	C8		0525		16	48 30.4 N	126 04.8 W		160	150				
	C7		0603		17	48 32.637 N	126 01.225 W		145	110				
	C3		1755		18	48 46.751 N	125 35.025 W		110	100				

CAST TYPE - BOT - bottle cast; CTD - ctd; MOR - mooring; ROS - rosette; NET - net haul; DRF - dritter; 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 1999 | MONTH April | SHIP Nopsa | CRUISE Black Cod Larval Survey | PAGE 2 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
	C4	CTD	1835	BE	19	48 43.39 N	125 40.52 W	GPS	160	150				
	C5		1929		20	48 39.754 N	125 47.048 W		65	50				
	C6		2020		21	48 36.3 N	125 53.7 W		80	70				
18	D4		0445		22	48 52.3 N	125 58.9 W		75	60				
	D5		0550		23	48 49.068 N	126 04.680 W		90	80				
	D9		1535		24	48 37.28 N	126 30.52 W		1000	500				surface sample
	D8		1645		25	48 39.27 N	126 25.36 W		900	500				
	D7		1820		26	48 42.73 N	126 16.44 W		420	390				
	D6		2035		27	48 46.54 N	126 08.40 W		125	110				
19	D11		0300		28	48 29.86 N	126 42.17 W		1900	500				
	E50		0545		29	48 37.39 N	126 58.94 W			500				
	E30		1725		30	48 48.431 N	126 32.522 W		300	290				
	E40		2010		31	48 45.02 N	126 44.00 W		1300	500				
20	E20		0106		32	48 57.10 N	126 21.76 W		145	130				
	E15		0226		33	49 06.8 N	125 00.8 W		105	95				surface sample
	E10		0353		34	49 02.5 N	126 08.82 W		70	60				
	E5		0507		35	49 05.44 N	126 03.29 W		50	40				
21	E80		0525		36	48 19.4 N	127 27.92 W		2500	500				

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: 1999 | MONTH: April | SHIP: Nagsa | CRUISE: Black Cod Larval Survey | PAGE: 3 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
21	E90	CTD	2030	BE	37	48 08.759 N	128 54.59 W	GPS	2500	500				
	E100		2345		38	47 57.72 N	128 19.17 W		2500	500				
22	D16		0555		39	47 32.32 N	128 39.84 W		2500	500				surface sample
22	D14		1428		40	47 51.112 N	127 46.168 W		2500	500				
22	D15		2036		41	47 37.583 N	128 10.629 W		2500	500				
23	D12		0555		42	48 16.13 N	127 03.92 W		2500	500				surface sample
	F8		1225		43	49 01.070 N	127 20.740 W		1800	500				
	F7		1355		44	49 06.84 N	127 15.06 W		1500	500				actual start time late – CTD won't on.
	F6		1555		45	49 13.187 N	127 05.478 W		500	475				
	F5		1651		46	49 15.87 N	127 01.87 W		175	150				
24	F2		0515		47	49 34.34 N	126 36.87 W		90	75				surface sample
	F3		0650		48	49 38.003 N	126 42.143 W		80	70				
	F4		0751		49	49 21.004 N	126 55.117 W		135	125				
	G6		1241		50	49 31.378 N	127 39.581 W		550	500				
	G7		1423		51	49 30.42 N	127 49.71 W		1800	500				
	G8		1632		52	49 24.638 N	127 58.641 W		2500	500				
25	G5		0315		53	49 47.8 N	127 27.82 W		78	65				
	G4		0425		54	49 52.67 N	127 23.95 W		67	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

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR 1999 | MONTH April | SHIP Nopsa | CRUISE Black Cod Larval Survey | PAGE 4 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	G3	CTD	0525	BE	55	49 58.88 N	127 20.01 W	GPS	60	50				surface sample
	H5		1330		56	49 53.65 N	128 12.90 W		1650	500				
	H6		1447		57	49 49.9 N	128 17.54 W		2000	500				
	H-11		1620		58	49 46.36 N	128 24.91 W		2200	500				
	H12		1738		59	49 43.107 N	128 30.663 W		2500	500				
26	H4		0150		60	49 58.08 N	128 03.52 W		765	500				
	H3		0320		60	50 01.10 N	127 58.30 W		1180	500				
	H2		0448		62	50 04.68 N	127 53.85 W							
	I6		2103		63	50 23.97 N	128 01.78 W		120	110				
	I7		2255		64	50 26.61 N	128 08.17 W		128	115				
27	I8		0010		65	50 17.34 N	128 13.78 W		366	350				
	I9		0200		66	50 12.04 N	128 25.58 W		1268	500				
	I10		0330		67	50 06.68 N	128 38.27 W		1750	500				
	E60a		2026		68	48 32.412 N	127 06.914 W		1800	500				surface sample
	E80a		2345		69	48 20.96 N	127 25.65 W		2600	500				
28	E90a		0345		70	48 07.98 N	127 59.53 W		2500	500				
	E100a		0645		71	47 57.59 N	128 18.06 W		2500	500				
	E110a		0945		72	47 48.27 N	128 39.58 W		2500	500				

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

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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	D16a	CTD	1320	BE	73	47 27.984 N	128 34.79 W	GPS	2600	500				
	D15a		1619		74	47 38.71 N	128 09.91 W		2500	500				
29	D13a		1025		75	48 04.83 N	127 21.78 W		2600	500				
	D14a		1648		76	47 52.478 N	127 44.050 W		2600	500				
30	D11a		0530		77	48 29.51 N	126 41.17 W		1400	500				
	D7a		1030		78	48 42.77 N	126 17.55 W		650	500				
	D8a		1155		79	48 39.66 N	126 22.75W		700	500				
	D9a		1320		80	4835.77 N	126 29.59W		1100	500				
	D10a		1455		81	48 32.32 N	126 36.05W		1500	500				
01	D6a		0215		82	48 46.35 N	126 08.58W		128	110				
	D5a		0320		83	48 50.45 N	126 02.25 W		75	65				
	D4a		0445		84	4854.16 N	125 55.00 W		65	60				
	E15a		0820		85	48 58.70 N	126 17.64 W		126	115				
	E20a		0914		86	48 55.71 N	126 22.65W		150	140				
	E30a		1125		87	48 49.19 N	126 34.61 W		340	330				
	E40a		1330		88	48 43.15 N	126 46.17 W		1200	500				
	E50a		1530		89	4837.79 N	126.56.82 W		1800	500				
02	E10a		0410		90	49 02.48 N	126 10.42		70	60				
	E5a		0505		91	49 04.49 N	126 05.31		45					

CAST TYPE - BOT - bottle cast; CTD; MCR; ROS - rosette; NET - net haul; DRF - drifter; USW - sea water loop; MS; mooring

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