CRUISE NUMBER: IOS9817

DAILY LOG

INSTITUTE OF OCEAN SCIENCES

OCEAN PHYSICS

DATE: July 15-27, 1998

VESSEL: W.E. Ricker

PROJECT: COPRA / GLOBEC
Plankton Productivity

Linguanti, Joe

From: Anderson, Doug
Sent: Tuesday, July 28, 1998 3:25 PM
To: Linguanti, Joe
Subject: CTD files for 9817 High Seas Salmon Project/W.E. Ricker/July 15th-July 27th, 1998

Hi Joe:

Regarding the CTD files for the 9817 cruise on the Ricker, for David Welsh's High Seas Salmon Project. We switched CTDs on cast 40 and beyond. We switched from Guildline CTD 58483 to Guildline CTD 43825. I brought the wrong calibration coefficients with me for 43825, so the CTD casts from 40 to 75 need new calibration coefficients. They are:

Temp: 0.99472 + 1.04305E-02
Salinity: 0.998756 + 1.018911E-03

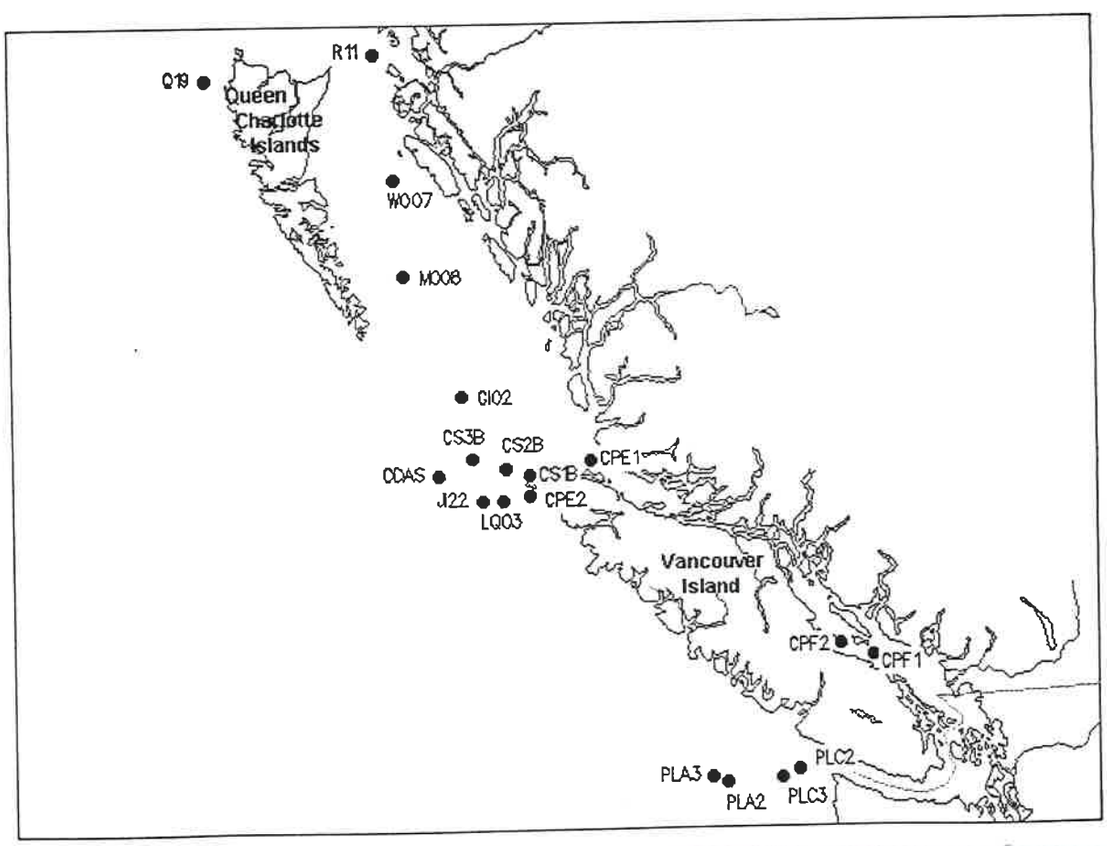
I have noted this in the cruise log, and also in the read-me file in the 9817 directory with the CTD files.

Doug Anderson
Instrumentation Technician,
Ocean Science and Productivity Division,
Institute of Ocean Sciences,
Department of Fisheries and Oceans
email: andersondo@pac.dfo-mpo.gc.ca
phone: 363-6399

COPRA Stations

Region		Station	Latitude	Longitude	Depth
1.	Strait of Georgia	CPF1	49 22.00N	124 05.00W	250 m
		CPF2	49 28.00N	124 30.00W	325 m
2.	La Perouse Bank	PLA2	48 22.70N	126 03.80W	380 m
		PLA3	48 24.70N	126 15.80W	930 m
		PLC2	48 27.61N	125 07.80W	135 m
		PLC3	48 23.45N	125 20.80W	120 m
3.	North Vancouver Island Queen Charlotte Sound	CPE1	51 00.00N	127 50.00W	150 m
		CPE2	50 43.00N	128 40.00W	140 m
		LQ03	50 39.79N	129 01.86W	750 m
		GI02	51 30.30N	129 37.50W	139 m
		JI22	50 39.80N	129 17.60W	
		CS1B	50 53.00N	128 40.00W	
		CS2B	50 56.00N	129 00.00W	
		CS3B	51 00.00N	129 27.00W	
		ODAS	50 51.50N	129 55.00W	2000 m
4.	Hecate Strait	M008	52 28.50N	130 29.00W	160 m
		W007	53 15.50N	130 41.00W	170 m
		R11	54 16.50N	131 02.30W	110 m
5.	Dixon Entrance	Q19	53 57.90N	133 29.70W	240 m

PGS COPRA Spare Flowmeter : GO # 812503



Captain: Simon S First Officer: Simon P.

Second Officer: Bruce ~~Third~~ Fishing Officer: Brian West

Cruise Participants / Agencies: PBS / IOS

Scientific Personnel: Party Chief: John Morris

Name	Watch	Cabin	Name	Watch	Cabin
Adrian Ladouceur					
Julian Wicksteed					
Doug Anderson					
Steve Romaine					
Erin Wittle					
Nicola Jaques					

Second leg of cruise: Party Chief:

Name	Watch	Cabin	Name	Watch	Cabin

Data logging system: Unit no.:

Program Name: Program version:

CTD deck unit make: model: serial no.:

Computer make: model: serial no.:

1st CTD make: model: serial no.:

Temperature sensor model: serial no.:

coefficients: slope: offset:

Conductivity sensor model: serial no.:

coefficients: slope: offset:

Pressure sensor range: psi serial no.:

coefficients: FSP: dB offset:

Transmissometer model: serial no.:

coefficients: slope: offset:

Comments: Bongo tows: Verticals off Stbd chains for COPRA

Obliques off Aft for HS9817

DAILY LOG — OCEAN PHYSICS — INSTITUTE OF OCEAN SCIENCES

YEAR: 1998 | MONTH: July | SHIP: W.E. Ricker | CRUISE: 9817 | 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
16	CP01	CTD	04:16	BE	001	49 22.01	124 05.08		243					
16	CP01	CTD	04:25	BO	001/002	49 22.01	124 05.10			250				Communications failed with winch, possible bottom contact
16	CP01	CTD	04:29	EN	002	49 22.00	124 05.13							
16	CP01	Bongo	0446	BO	003	49 22.01	124 05.08			50				COPRA Bongo UNH
16	CP01	Bongo	0502	BO	004	49 22.01	124 05.08			250				COPRA Bongo UNH
17	TI02	CTD	15:31	BE	005	51 11.77	128 19.79		148					
17	TI02	CTD	15:33	BO	005/006	51 11.80	128 19.78	141						
17	TI02	CTD	15:35	EN	006	51 11.82	128 19.77							
17	TI02	Bongo	0804	BE	0007	51. 11.82	128 19.77		142	130				Bongo - oblique
17	T103	CTD	17:44	BE	008	51 07.47	128 29.64		158					Surface Temp - 12.646 °C
17	T103	CTD	17:48	BO	008/009	51 07.47	128 29.64							Surface Sal - 30.466
17	T103	CTD	17:50	EN	009	51 07.48	128 29.65							
17	T102	Bongo	1800	BE	0010	51 07.48	128 29.65		160	150				Bongo - oblique
17	T104	CTD	19:32	BE	0011	51 03.24	128 39.35		71	62				
17	T104	CTD	19.35	BO	0011/0012	51 03.25	128 39.39							Surface Temp - 11.003 Surface Sal - 31.817
17	T104	CTD	19:36	EN	0012	51 03.25	128 39.39							
17	T104	Bongo	1945	BE	0013	51 03.25	128 39.39							Bongo - oblique
17	T105	CTD	21:21	BE	0014	50 58.97	128 49.02		64					Surface Temp - 12.290 Surface Sal - 32.083

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	July	Ricker	9817	2	

DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC # EVENT #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
17	TI05	CTD	21:22	BO	0014/0015	50 58 . 97	128 49.06							
17	TI05	CTD	21:24	EN	0015	50 58 . 98	128 49 . 09							
17	TI05	Bongo	2140	BE	0016	50 58.98	128 49.09		63	50				Bongo - oblique
17	TI06	CTD	23:34	BE	0017	50 54 .69	128 58 . 71		62					Surface Temp: 10.931 Surface Sal: 32.243
17	TI06	CTD	23:38	BO	0017/0018	50 54 . 71	128 58 . 71			55				
17	TI06	CTD	23:40	EN	0018	50 54 . 71	128 58 . 75							* Missed TI06 Bongo due to hiab failure.
18	TI07	CTD	02:46	BE	0019	50 49 . 10	129 12 . 15		102					Surface Temp: 13.048 Surface Sal: 31.855
18	TI07	CTD	02:50	BO	0019/0020	50 49 .14	129 12 . 33			90				
18	TI07	CTD	02:53	EN	0020	50 49 . 19	129 12 .43							
18	TI07	Bongo	03:08	BE	0021	50 49 . 19	129 12.43		115	100				Bongo - oblique
18	TI08	CTD	03:45	BE	0022	50 45,93	129 17. 95			155				Surface Temp: 13.742 Surface Sal: 31.702
18	TI08	CTD	03: 50	BO	0022/23	50 45,93	129 17 . 92		152					Consecutive #'s out →
18	TI08	CTD	03:53	EN	0023	50 45 . 90	129 17 . 89							
18	TI08	Bongo	0403	BE	0024	50 45,90	129 17.89		152	145				Bongo - oblique
18	TI09	CTD	0503	BE	0025	50 41.05	129 28 . 18		1930					Surface temp: 13.725 Surface Sal = 31.664
18	TI09	CTD	0519	BO	0025/26	50 41 .12	129 28 . 41			1060				
18	TI09	CTD	0540	EN	0026	5041 . 13	129 28 . 82							
18	TI09	Bongo	0550	BE	0027	50 41.13	129 28.82		1100	150				Bongo - oblique

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: July | SHIP: W.E. Ricker | CRUISE: 9817 | 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	TI10	CTD	6:44	BE	28	50 36.54	129 38.35		1967					Surface Sal 31.666 Surface Temp 13.905
18	TI10	CTD	7:08	BO	28/29	50 36.59	129 38.37	1000						
18	TI10	CTD	7:32	EN	29	50 36.66	129 38.25							
18	TI10	Bongo	8:06	BE	0030	50 36.66	129 38.25			150				Bongo - Oblique
18	TI11	CTD	9:28	BE	31	5031.95	129 48.61		2172					surface temp 13.653 surface sal 31.814
18	TI11	CTD	9:43	BO	31/32	5031.86	129 48.37	1000		1005				
18	TI11	CTD	9:56	EN	32	5031.80	129 48.40							
18	TI11	Bongo	10:09	BE	33	5031.80	129 48.40			150				Bongo - Oblique
18	TI12	CTD	11:14	BE	34	5027.51	129 59.17		2177					surface temp = 13.928 surface sal. = 32.041
18	TI12	CTD	11:27	BO	34/35	5027.38	129 59.03			1006				
18	TI12	CTD	11:38	EN	35	5027.31	129 58.95							
18	TI12	Bongo	11:49	BE	36	5027.31	12958.95	1000		150				Bongo - Oblique
18	TI13	CTD	12:45	BE	37	5023.04	130 09.54		2644					surface temp = 13.550 surface sal. = 32.048
18	TI13	CTD	13:03	BO	37/38	50 22.95	130 09.57			(1004) 1223				
18	TI13	CTD		EN	39									* CTD LOST
19	CS1B	CTD	04:30	BE	40	50 53.17	128 39.69		78	-				CTD 43825 * Using wrong cal. coeff. *
19	CS1B	CTD	04:31	BO	40/41	50 53.16	128 39.48	70						Surface Temp Surface Sal
19	CS1B	CTD	0433	EN	41	50 53.16	128 39.41							

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

CTD lost. Cable broke at 287 m. CTD SN 58483 and Transmissometer 254.
50 22.85 N 130 09.36 W
Operator reported seeing a tangle in cable that went into the block before cable snapped.
On previous cast at TT10, there were kinks in cable at about 50 m.
The likely cause of the tangle was that the CTD was lowered too fast.
The winch counter was not functioning, and he was quite new and likely inexperienced at judging the winch speed. There was also an inexperienced operator on the acquisition computer.

The cable has been reterminated, and the spare CTD, 43825 has been put into use.
Currently we don't have correct calibration coefficients for 43825, but will try to get some faxed to us on the next working day.

Doug Anderson 98/07/19 2:25 (UTC)

DAILY LOG — OCEAN PHYSICS — INSTITUTE OF OCEAN SCIENCES

YEAR: 1998 | MONTH: July | SHIP: W.E. Ricker | CRUISE: 9817 | 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
19	CS1B	Bongo	0944	BO	42	50 53.16	128 39.41		70	65				Bongo - COPRA
19	CS2B	Bongo	0631	BO	43	50 55.90	128 59.74		58	50				Bongo - COPRA
19	CS2B	CTD	0632	BE	44	50 55.90	128 59.74		59					
19	CS2B	CTD	0635	BO	44/45	50 55.88	128 59.69	40						Sounder Malfunction Slight bottom contact
19	CS2B	CTD	0637	EN	45	50 55.87	128 59.67							* Using wrong calib coeff *
19	H01	CTD	1415	BE	46	52 12.27	129 10.58		154					* Using wrong calib coeff. *
19	H01	CTD	1417	BO	46/47	52 12.26	129 10.58	145						
19	H01	CTD	1420	EN	47	52 12.25	129 10.59							
19	H01	Bongo	1431	BE	48	52 12.25	129 10.59		135	130				Bongo - oblique
19	H02	CTD	16:41	BE	49	52 21.71	129 27.55		139					
19	H02	CTD	16:43	BO	49/50	52 21.73	129 27.60			130				Surface Sal : 31.364 Surface Temp: 13.083
19	H02	CTD	16:45	EN	50	52 21.75	129 27.62							* Using Wrong Calib Coeff *
19	H02	Bongo	16:54	BE	51	52 21.75	129 27.62		140	130				Bongo - oblique
19	H03	CTD	18:33	BE	52	52 23.95	129 43.12		215					Surface Sal : 31.366 Surface Temp : 13.565
19	H03	CTD	18:36	BO	52/53	52 23.87	129 43.13			205				* Using wrong calib coeff. *
19	H03	CTD	18:39	EN	53	52 23.85	129 43.12							
19	H03	Bongo	1846	BE	54	52 23.85	129 43.12		210	150				Bongo - oblique
19	H04	CTD	20:34	BE	55	52 26.63	129 58.55		245					* Wrong Cal Coeff. *

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: July | SHIP: W.E. Ricker | CRUISE: 9817 | 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
19	H04	CTD	20:38	BO	55/56	52 26 . 62	129 58 . 51							Surface Temp: 13.673 Surface Sal: 31.218
19	H04	CTD	20:41	EN	56	52 26 .60	129 58 . 49							
19	H04	Bongo	2056	BE	57	52 26.60	129 58.49		240	150				Bongo - oblique
19	H05	CTD	22 55	BE	58	52 29 .23	130 14 . 19		313					Sea Temp : 13.894 Surface Sal: 31.294
19	H05	CTD	2259	BO	58/59	52 29 . 33	130 14 . 16			305				* Wrong Cal Coeff *
19	H05	CTD	2304	EN	59	52 29 . 41	130 14 . 09							
19	H05	Bongo	2313	BE	60	52 29.91	130 14.09		310	150				Bongo - oblique
20	M008	CTD	0055	BE	61	52 28 . 94	130 28 . 88		174					Surface Sal . 31.436 Surface Temp . 13.353
20	M008	CTD	0058	BO	61/62	52 28 .91	130 28 . 80			165				* Wrong Cal Coeff *
20	M008	CTD	01:01	EN	62	52 28.92	130 28 . 77							
20	M008	Bongo	0113	BO	63	52 28.92	130 28.77		174	50				Bongo COPRA 50-0
20	M008	Bongo	0124	BO	64	52 28.92	130 28.77		174	165				Bongo COPRA -0
20	M008	Bongo	0133	BE	65	52 28.92	130 28.77		174					Bongo - oblique
20	M007	CTD	0644	BE	66	53 15 . 12	130 40.97		186					Surface Temp: 13.111 Surface Sal: 31.349
20	M007	CTD	0650	BO	66/67	53 15 . 15	130 41.02			180				* Wrong Cal. Coeff. *
20	M007	CTD	0652	EN	67	53 15 . 15	130 41 .09							
20	M007	Bongo	0704	BO	68	53 15.15	130 41.09		185	50				Bongo COPRA 50-0
20	M007	Bongo	0718	BO	69	53 15.15	130 41.09		185	170				Bongo COPRA 160-0

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	July	W.E. Ricker	9817	

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
20	DI01	CTD	17:39	BE	70	54 34.99	132 19.79		244					Surface Temp: 11.809 Surface Sal: 31.326
20	DI01	CTD	18:02	BO	70/71	54 35.03	132 19.80			235				*Wrong Cal Coeff*
20	DI01	CTD	18:07	EN	71	54 34.99	132 19.76							
20	DI01	Bongo	1816	BE	72	54 34.99	132 19.76		244	150				Bongo - oblique
20	DI02	CTD	19:32	BE	74*	54 31.76	132 32.81		330					Surface Temp: 11.483 Surface Sal: 31.461
20	DI02	CTD	19:58	BO	74/75	54 31.74	132 32.90			320				* 98170073 contains no data*
20	DI02	CTD	20:02	EN	75	54 31.75	132 32.92							*Wrong cal coeff*
20	DI02	Bongo	2013	RE	76	54 31.75	132 32.92		330	150				Bongo - oblique
21	B01	CTD	13 32	BE	77	56 17 56	134 55 .04		139					Surface Temp 11.565 Surface Sal 31.663
21	B01	CTD	13 35	BO	77/78	56 17.58	134 55.04			130				*Correct Cal Coeff*
21	B01	CTD	13 38	EN	78	56 17.57	134 55.04							
21	B01	Bongo	1411	BE	79	56 17.57	134 55.04		140	130				Bongo - oblique
21	B02	CTD	15:37	BE	80	56 15.34	135 01.40		144					*Correct Cal Coeff*
21	B02	CTD	15:40	BO	80/81	56 15.35	135 01.41			140				Surface Temp: 12.866 Surface Sal: 32.280
21	B02	CTD	15:43	EN	81	56 15.38	135 01.42							
21	B02	Bongo	1551	BE	82	56 15.38	135 01.42		150	140				Bongo - oblique
21	B03	CTD	1716	BE	83	56 12.52	135 07.79		174					Surface Temp: 13.089 Surface Sal: 32.240
21	B03	CTD	1719	BO	83/84	56 12.53	135 07.81							

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

CTD casts #40 - #75 using CTD S/N 43825 need the following calibration coefficients:

TEMP:	0.999472	+ 1.04305E	-02
SAL:	0.998756	+ 1.01891E	-03

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR: 1998 | MONTH: July | SHIP: W.E. Ricker | CRUISE: 9817 | 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
21	B03	CTD	17:22	EN	84	56 12.54	135 07.76							
21	B03	Bongo	1729	BE	85	56 12.54	135 07.76		175	150				Bongo - oblique
21	B04	CTD	18:52	BE	86	56 09.78	135 14.32		290					Surface Temp: 12.898 Surface Sal: 32.282
21	B04	CTD	18:56	BO	86/87	56 09.79	135 14.32			280				
21	B04	CTD	18:59	EN	87	56 09.80	135 14.26							
21	B04	Bongo	1916	BE	88	56 09.80	135 14.26		290	150				Bongo - oblique
21	B05	CTD	20:38	BE	89	56 07.05	135 21.23		311					Surface Temp: 13.057 Surface Sal: 32.322
21	B05	CTD	20:46	BO	89/90	56 07.17	135 21.07			300				
21	B05	CTD	20:50	EN	90	56 07.22	135 21.02							
21	B05	Bongo	2058	BE	91	56 07.22	135 21.02		310	150				Bongo - oblique
22	B10	CTD	0311	BE	92	55 51.57	135 59.83		1176?					Surface Temp: 13.060 Surface Sal: 32.059
22	B10	CTD	0327	BO	92/93	55 51.53	135 59.73			1000				* Sounder malfunction
22	B10	CTD	0334	EN	93	55 51.55	135 59.72							
22	B10	Bongo	0343	BE	94	55 51.55	135 59.72			150				Bongo - oblique
22	B09	CTD	0435	BE	95	55 53.94	135 53.09		?*					* Sounder Malfunction
22	B09	CTD	0456	BO	95/96	55 54.07	135 53.20			1005				Surface Temp: 13.511 Surface Sal: 31.936
22	B09	CTD	0514	EN	96	55 54.13	135 53.19					1		Calibration bottle sample taken at 1000m.
22	B09	Bongo	0523	BE	97	55 54.13	135 53.19							Bongo - oblique

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
1998	July	W. E. Ricker	9817	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
22	B08	CTD	0631	BE	98	55 59.01	135 41.29		1317					
22	B08	CTD	0651	BO	98/99	5559.27	135 41.15			1000				Surface Temp: 13.021 Surface Sal: 32.325
22	B08	CTD	0659	EN	99	55 59.37	135 41.11							
22	B08	Bongo	0707	BE	100	55 59.37	135 41.11		1280	150				Bongo - oblique
22	B07	CTD	0759	BE	101	56 01.63	135 34.44		906					Surface Temp: 13.100 Surface Sal: 32.323
22	B07	CTD	0811	BO	101/102	56 01.69	135 34.38			790				
22	B07	CTD	0819	EN	102	56 01.72	135 34.34							
22	B07	Bongo	0829	BE	103	56 01.72	135 34.34		906	150				Bongo - oblique
22	B06	CTD	0919	BE	104	56 04.37	135 27.88							Surface Temp: 13.082 Surface Sal: 32.310
22	B06	CTD	0922	BO	104/105	56 04.34	135 27.81		576					
22	B06	CTD	0929	EN	105	56 04.31	135 27.78			567				
22	B06	Bongo	0942	BE	106	56 04.31	135 27.73		576	150				Bongo - oblique
22	DI03	CTD	2355	BE	107	54 28.65	132 45.86		370					Surface Temp: 11.399 Surface Sal: 31.859
22	DI03	CTD	0004	BO	107/108	54 28.51	132 46.28			360				
22	DI03	CTD	0009	EN	108	54 28.45	132 46.46							
22	DI03	Bongo	0016	BE	109	54 28.45	132 46.46		370	150				Bongo - oblique
23	DI04	CTD	0320	BE	110	54 25.57	132 58.61		152	140				Surface Temp: 11.922 Surface Sal: 31.453
23	DI04	CTD	0324	BO	110/111	54 25.57	132 58.68							

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: July | SHIP: W.E. Ricker | CRUISE: 9817 | 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
23	DI04	CTD	0326	EN	111	54 25.58	132 58.67							
23	DI04	Bongo	0335	BE	112	54 25.58	132 58.67		150	140				Bongo - oblique
23	DI12	CTD	11:15	BE	113	53 59.85	134 40.23		?					Surface Temp: 13.689 Surface Sal: 32.089
23	DI12	CTD	1135	BO	113/114	53 59.87	134 39.88			1000		1		Calibration sample taken at 1000 m.
23	DI12	CTD	12:00	EN	114	53 59.87	134 39.72							
23	DI12	Bongo	1211	BE	115	53 59.87	134 39.72			150				Bongo - oblique
23	DI11	CTD	13:13	BE	116	54 03.08	134 27.62					1		Surface Temp: 13.608 Surface Sal: 32.132
23	DI11	CTD	13:31	BO	116/117	54 02.94	134 27.41		?					Calibration sample taken at 1000 m.
23	DI11	CTD	13:53	EN	117	54 02.87	134 24.24			1000				
23	DI11	Bongo	1403	BE	118	54 02.87	134 27.24			150				Bongo - oblique
23	DI10	CTD	1512	BE	119	54 06.27	134 15.16		?					Surface Temp: 13.513 Surface Sal: 32.086
23	DI10	CTD	1530	BO	119/120	54 06.08	134 15.50			1000				
23	DI10	CTD	1536	EN	120	54 06.04	134 15.60							
23	DI10	Bongo	1545	BE	121	54 06.04	134 15.60			150				Bongo - oblique
23	DI09	CTD	1725	BE	122	54 09.46	134 02.25		?					Surface Temp: 13.388 Surface Sal: 32.111
23	DI09	CTD	1739	BO	122/123	54 09.47	134 02.26			1000				
23	DI09	CTD	1745	EN	123	54 09.48	134 02.28							
23	DI09	Bongo	1753	BE	124	54 09.43	134 02.23			150				Bongo - oblique

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: July | SHIP: W.E. Ricker | CRUISE: 9817 | 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
23	DIO8	CTD	19:27	BE	125	54 12.81	133 49.54		445					Surface Temp 13.114 Surface Sal 32.074
23	DIO8	CTD	19:33	BO	125/126	54 12.81	133 49.44			435				
23	DIO8	CTD	19:36	EN	126	54 12.81	133 49.43							
23	DIO8	Bongo	1950	BE	127	54 12.81	133 49.43			150				Bongo - oblique
23	DIO7	CTD	2120	BE	128	54 15.96	133 36.73		280					Surface Temp 13.555 Surface Sal 32.130
23	DIO7	CTD	2125	BO	128/129	54 15.92	133 36.65			270				
23	DIO7	CTD	2129	EN	129	54 15.96	133 36.65							
23	DIO7	Bongo	2139	BE	130	54 15.96	133 36.65			150				Bongo - oblique
23	DIO6	CTD	2301	BE	131	54 19.11	133 24.23		381					Surface Temp 13.454 Surface Sal 32.092
23	DIO6	CTD	2308	BO	131/132	54 19.19	133 24.18			370				
23	DIO6	CTD	2312	EN	132	54 19.21	133 24.21							
23	DIO6	Bongo	2319	BE	133	54 19.21	133 24.21		390	150				Bongo - oblique
24	DIO5	CTD	0056	BE	134	54 22.31	133 11.33		458					Surface Temp 13.477 Surface Sal 32.097
24	DIO5	CTD	0105	BO	134/135	54 22.20	133 11.23			450				
24	DIO5	CTD	0108	EN	135	54 22 16	133 11.25							
24	DIO5	Bongo	0117	BE	136	54 22.16	133 11.25			150				Bongo - oblique
25	HO8a*	CTD	19:05	BE	137	52 37.57	131 04.97		90					Surface Temp 13.641 Surface Sal 31.512
25	HO8a	CTD	19:06	BO	137/138	52 37.58	131 05.04			80				* Hecate strait shelf.

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	July	W.E. Ricker	9817	

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	H08a	CTD	19:08	EN	138	52 37.60	131 05.10							
25	H08	Bongo	1911	BE	139	52 37.60	131 05.10		90	90				Bongo - oblique
25	H07	CTD	2018	BE	140	52 36.64	131 00.46		104					Surface Temp: 13.952 Surface Sal: 31.484
25	H07	CTD	2020	BO	140/141	52 36.72	131 00.59			95				
25	H07	CTD	2022	EN	141	52 36.76	131 00.66							
25	H07	Bongo	2030	BE	142	52 36.76	131 00.66		105	95				Bongo - oblique

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