

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2014-21

DATE:

From:

May 27/2014

To:

VESSEL:

J.P. Tully

PROJECT(S):

Water Properties Group
Fisheries and Oceans Canada
Institute of Ocean Sciences
Ocean Sciences Division
North Saanich, BC, Canada

WaterProperties.ca

**** The following 3 pages are VERY IMPORTANT as they document equipment and settings used on board ****

These pages are to be completed by the CTD Technician setting up the equipment, the Watch Leader on board, and the Chief Scientist MUST verify that all relevant sections are completed prior to leaving the vessel. Any mid-cruise changes to be noted by watch leader in the notes.

Data logging computer: #3

Data acquisition program: Seasave

CTD deck unit make: SBE model: 11+ serial number: 471

Primary CTD

Make: SBE model: 9+ serial number: 585

Primary temperature serial number: 4054

Primary conductivity serial number: 1766

Secondary temperature serial number: 4700

Secondary conductivity serial number: 3321

Transmissometer: Wetlabs Model: C-star s/n: 1396DR

Transmissometer: _____ Model: _____ s/n: _____

Fluorometer: Model Seapoint Cable gain: 3X s/n: 3642 P, S or NO pump?

Fluorometer: Model _____ Cable gain: _____ s/n: _____ P, S or NO pump?

Oxygen sensor: SBE Model: 43 s/n: 1119 P, S or NO pump?

PAR sensor: BIOSPHERICAL Model: _____ s/n: 4615 Surface PAR? Y/N

Other sensors: _____ s/n: _____ P, S or NO pump?

Other sensors: _____ s/n: _____ P, S or NO pump?

Other sensors: _____ s/n: _____ P, S or NO pump?

Other sensors: _____ s/n: _____ P, S or NO pump?

Secondary CTD

Make: _____ model: _____ serial number: _____

Primary temperature serial number: _____

Primary conductivity serial number: _____

Secondary temperature serial number: _____

Secondary conductivity serial number: _____

Transmissometer: _____ Model: _____ s/n: _____

Transmissometer: _____ Model: _____ s/n: _____

Fluorometer: Model _____ Cable gain: _____ s/n: _____ P, S or NO pump?

Fluorometer: Model _____ Cable gain: _____ s/n: _____ P, S or NO pump?

Oxygen sensor: _____ Model: _____ s/n: _____ P, S or NO pump?

PAR sensor: _____ Model: _____ s/n: _____ Surface PAR? Y/N

Other sensors: _____ s/n: _____ P, S or NO pump?

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Other sensors: _____ s/n: _____ P, S or NO pump?

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CTD calibration bottle location (height above CTD in metres): _____

This also includes the bottle location above the CTD on non-rossette casts (e.g., W.E. Ricker)

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <u>MAY</u>			Year <u>2014</u>			Vessel <u>J. P. TULLY</u>			Cruise ID <u>2014-21</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
1	LBO1	28	14:59	BE	ROS	U.S.	48° 40.36	124° 59.52	34	28.6	1 - 5	5	H.M.	<input checked="" type="checkbox"/> <input type="checkbox"/>	PAR 1001
			15:00	BO			48° 40.36	124° 59.60			-			<input type="checkbox"/> <input type="checkbox"/>	
			15:04	EN			48° 40.36	124° 59.66			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/> <input type="checkbox"/>	
2	LBO2	28	15:49	BE	ROS	U.S.	48° 39.00	125° 02.64	51		6 - 11	6	H.M.	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			15:50	BO			48° 39.00	125° 02.64		46.3	-			<input type="checkbox"/> <input type="checkbox"/>	
			15:56	EN			48° 38.99	125° 02.64			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/> <input type="checkbox"/>	
3	LBO3	28	16:45	BE	ROS	U.S.	48° 37.312	125° 5.554	89		12 - 13	2	H.M.	<input checked="" type="checkbox"/> <input type="checkbox"/>	CTD = HALC ONLY
			16:46	BO			48° 37.312	125° 5.556		84.0	-			<input type="checkbox"/> <input type="checkbox"/>	
			16:50	EN			48° 37.30	125° 5.55			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/> <input type="checkbox"/>	
4	LBO4	28	17:19	BE	ROS	US	48° 35.677	125° 8.77	109		14 - 21	8	MB	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			17:21	BO			48° 35.68	125° 8.75		1041	-			<input type="checkbox"/> <input type="checkbox"/>	
			17:32	EN			48° 35.69	125° 8.70			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/> <input type="checkbox"/>	
5	PLASTIC 1	28	17:43	BE	LOOP	/	48° 33.87	125° 07.63			-			<input type="checkbox"/> <input type="checkbox"/>	10 MIN 0.063M
			17:53	EN			48° 33.43	125° 05.91			-			<input type="checkbox"/> <input type="checkbox"/>	
6	E1	28	18:24	BE	ROS		48° 31.66	125° 03.66	116		999-999	1	H.M.	<input type="checkbox"/> <input type="checkbox"/>	SAMPLE 999 -
			18:27	BO			48° 31.68	125° 03.66			-			<input type="checkbox"/> <input type="checkbox"/>	
			18:30	EN			48° 31.68	125° 03.66			-			<input type="checkbox"/> <input type="checkbox"/>	

Event Type:
 BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
 SET = Fish Set

LOOP = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 =

Bottle Firing Method:
 US = Up / Stop (default)
 UN = Up / No stop
 DN = Down / No stop

Time Code:
 BE = Beginning Time of Cast
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CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products
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7	E1	28	18:48	BE	NET	—	48° 31.73	125° 03.64	115		-	-	H.M	<input type="checkbox"/> <input type="checkbox"/>	BONGO
			18:54	Bo			48° 31.76	125° 03.66		105	-			<input type="checkbox"/> <input type="checkbox"/>	
			18:57	EN			48° 31.77	125° 03.67			-			<input type="checkbox"/> <input type="checkbox"/>	
8	LBO5	28	19:51	BE	ROS	US	48° 33.99	125° 11.94	102		22-23	2	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			19:53	Bo			48° 33.98	125° 11.93			-			<input type="checkbox"/> <input type="checkbox"/>	
			19:58	EN			48° 33.97	125° 11.95			-			<input type="checkbox"/> <input type="checkbox"/>	
9	LBO6	28	20:39	BE	ROS	US	48° 32.19	125° 15.42	116		24-30	7	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			20:42	Bo			48° 32.21	125° 15.35		107	-			<input type="checkbox"/> <input type="checkbox"/>	
			20:50	EN			48° 32.14	125° 15.13			-			<input type="checkbox"/> <input type="checkbox"/>	
10	C1	28	21:35	BE	ROS	—	48° 28.92	125° 15.15	152		900- /	1	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			21:39	Bo			48° 28.89	125° 15.19		145	-			<input type="checkbox"/> <input type="checkbox"/>	
			21:42	EN			48° 28.89	125° 15.19			-			<input type="checkbox"/> <input type="checkbox"/>	
11	C1	28	21:52	BE	NET	✓	° .	° .	153		-		MG	<input type="checkbox"/> <input type="checkbox"/>	
			21:58	Bo			48° 28.92	125° 15.20		143	-			<input type="checkbox"/> <input type="checkbox"/>	
			22:03	EN			48° 28.92	125° 15.21			-			<input type="checkbox"/> <input type="checkbox"/>	
12	C2	28	22:44	BE	ROS	US	48° 26.05	125° 09.30	162		901-	1	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	stop @ 3 ↓ for 2 min
			22:51	Bo			48° 26.04	125° 09.34		153	-			<input type="checkbox"/> <input type="checkbox"/>	
			22:55	EN			48° 26.05	125° 09.34			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				° .	° .			-			<input type="checkbox"/> <input type="checkbox"/>	

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
13	C2	28	23:04	BE	NET		48°26.06	125°09.29	162		-		MG	<input type="checkbox"/> <input type="checkbox"/>	
			23:10	BO			48°26.05	125°09.28		152	-			<input type="checkbox"/> <input type="checkbox"/>	
			23:13	EN			48°26.04	125°09.27			-			<input type="checkbox"/> <input type="checkbox"/>	
14	C3	29	00:56	BE	ROS		48°23.44	125°20.75	122		-			<input checked="" type="checkbox"/> <input type="checkbox"/>	
			00:59	BO		US	48°23.42	125°20.77		112	903- /	1	MR	<input type="checkbox"/> <input type="checkbox"/>	
			01:02	EN			48°23.44	125°20.78			-			<input type="checkbox"/> <input type="checkbox"/>	
15	C3	29	01:17	BE	NET	-	48°23.46	125°20.73	124		-		MG	<input type="checkbox"/> <input type="checkbox"/>	
			01:23	BO			48°23.46	125°20.70		114	-			<input type="checkbox"/> <input type="checkbox"/>	
			01:25	EN			48°23.47	125°20.71			-			<input type="checkbox"/> <input type="checkbox"/>	
16	LBO7	29	02:18	BE	NET	-	48°28.67	125°22.02	156		-		MG	<input type="checkbox"/> <input type="checkbox"/>	
			02:26	BO			48°28.67	125°21.95		146	-			<input type="checkbox"/> <input type="checkbox"/>	
			02:29	EN			48°28.68	125°21.94			-			<input type="checkbox"/> <input type="checkbox"/>	
17	LBO7	29	02:37	BE	ROS		48°28.68	125°21.93	156		32 = /	1	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			02:40	BO			48°28.67	125°21.92		148	-			<input type="checkbox"/> <input type="checkbox"/>	
			02:44	EN			48°28.66	125°21.91			-			<input type="checkbox"/> <input type="checkbox"/>	
18	LBO8		03:33	BE	NET	-	48°25.28	125°28.61	140		-		MG	<input type="checkbox"/> <input type="checkbox"/>	
			03:40	BO			48°25.27	125°28.59		130	-			<input type="checkbox"/> <input type="checkbox"/>	
			03:43	EN			48°25.25	125°28.61			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				o	o			-			<input type="checkbox"/> <input type="checkbox"/>	

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19	LB08	29	03:53	BE	ROS	US	48° 25.24	125° 28.61	139		34 - 45	12	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			03:57	BO			48° 25.25	125° 28.61	135	130	-			<input type="checkbox"/> <input type="checkbox"/>	
			04:12	EN			48° 25.18	125° 18.61			-			<input type="checkbox"/> <input type="checkbox"/>	
20	B8	29	05:36	BE	NET	-	48° 34.48	125° 29.90	114		-		MG	<input type="checkbox"/> <input type="checkbox"/>	
			05:43	BO			48° 34.49	125° 29.92		105	-			<input type="checkbox"/> <input type="checkbox"/>	
			05:45	EN			48° 34.51	125° 29.90			-			<input type="checkbox"/> <input type="checkbox"/>	
21	B8	29	05:56	BE	ROS	US	48° 34.51	125° 29.92	112		905 - /	1	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			05:59	BO			48° 34.50	125° 29.92		104	-			<input type="checkbox"/> <input type="checkbox"/>	
			06:02	EN			48° 34.51	125° 29.93			-			<input type="checkbox"/> <input type="checkbox"/>	
22	B7	29	06:44	BE	ROS	US	48° 31.97	125° 35.47	81		907 - /	1	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			06:47	BO			48° 31.97	125° 35.46		71	-			<input type="checkbox"/> <input type="checkbox"/>	
			06:49	EN			48° 31.97	125° 35.47			-			<input type="checkbox"/> <input type="checkbox"/>	
23	B7	29	07:03	RE	WGT	-	48° 31.97	125° 35.48	79		-		HM	<input type="checkbox"/> <input type="checkbox"/>	BOMBO
			07:06	BO			48° 31.97	125° 35.47		70	-			<input type="checkbox"/> <input type="checkbox"/>	
			07:07	EN			48° 31.97	125° 35.47			-			<input type="checkbox"/> <input type="checkbox"/>	REBOOT TSG
24	LB09	29	08:46	BE	ROS	US	48° 22.001	125° 34.759	153		46 - 56	11	H.M.	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			08:49	BO			48° 21.988	125° 34.765		143	-			<input type="checkbox"/> <input type="checkbox"/>	
			09:00	EN			48° 21.976	125° 34.757			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/> <input type="checkbox"/>	

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
25	LB10	29	10:09	BC	ROS	US	48° 18.507	125° 41.262	156		57-	1	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			10:12	BO			48° 18.4910	125° 41.262		142.1	-			<input type="checkbox"/> <input type="checkbox"/>	
			10:16	EN			48° 18.493	125° 41.243			-			<input type="checkbox"/> <input type="checkbox"/>	
26	LB11	29	11:27	BC	ROS	U.S.	48° 15.235	125° 47.656	206		59-69	11	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			11:34	BO			48° 15.218	125° 47.676		197.3	-			<input type="checkbox"/> <input type="checkbox"/>	
			11:49	EN			48° 15.236	125° 47.599			-			<input type="checkbox"/> <input type="checkbox"/>	
27	LB11	29	12:15	BC	NET	-	48° 15.18	125° 47.60	205		-	-		<input type="checkbox"/> <input type="checkbox"/>	Bot 160
			12:21	BO			48° 15.16	125° 47.60		195	-			<input type="checkbox"/> <input type="checkbox"/>	
			12:24	EN			48° 15.14	125° 47.60			-			<input type="checkbox"/> <input type="checkbox"/>	
28	LB12	29	13:13	BC	ROS	US	48° 12.900	125° 51.809	510		-		MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			13:21	BO			48° 12.877	125° 51.856		503.1	72-88			<input type="checkbox"/> <input type="checkbox"/>	
			13:46	EN			48° 12.875	125° 51.956			-			<input type="checkbox"/> <input type="checkbox"/>	
29	LB13	29	15:08	BC	ROS	US	48° 10.580	125° 56.004	912		89-90		MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	PAB OFF
			15:23	BO			48° 10.58	125° 55.98		910	-			<input type="checkbox"/> <input type="checkbox"/>	
			15:40	EN			48° 10.58	125° 55.92			-			<input type="checkbox"/> <input type="checkbox"/>	
30	LB14	29	16:16	BC	ROS	US	48° 08.49	125° 59.90	1179		91-111	21	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			16:33	BO			48° 08.48	125° 59.91			-			<input type="checkbox"/> <input type="checkbox"/>	
			17:11	EN			48° 08.45	125° 59.98			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/> <input type="checkbox"/>	

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31	LB15	29	18:10	BE	ROS	US	48° 04.34	126° 08.42	1545		---	---	MR	<input type="checkbox"/>	
			18:36	BO			48° 04.39	126° 08.43			-			<input type="checkbox"/>	
			19:04	EN			48° 04.38	126° 08.44			-			<input type="checkbox"/>	
32	LOOP32	29	19:14	BO	LOOP	-	48° 03.96	126° 09.45	1618	4.5	-		MR	<input type="checkbox"/>	16.3KN 1SAL 2CHL
33	PURSTIC2	29	19:17	BE	LOOP	-	48° 03.71	126° 09.99	1664	4.5	-		MG	<input type="checkbox"/>	10MLW
			19:27	EN			48° 02.74	126° 12.02	1558		-			<input type="checkbox"/>	Flow 6.6, 7.7 sec/L
34	LB16	29	19:58	BE	NET	-	48° 00.52	126° 17.01	1785		-		MG	<input type="checkbox"/>	
			20:10	BO			48° 00.56	126° 17.02		350	-			<input type="checkbox"/>	
			20:20	EN			48° 00.55	126° 17.04			-			<input type="checkbox"/>	
35	LB16	29	20:25	BE	ROS	US	48° 00.57	126° 17.01	1780		-			<input checked="" type="checkbox"/>	
			20:59	BO			48° 00.59	126° 17.04		1807	114 - 115	2	MR	<input type="checkbox"/>	
			21:29	EN			48° 00.58	126° 17.02			-			<input type="checkbox"/>	
							Syringes + : ox, plus were ON between 48° + .LC	12			-			<input type="checkbox"/>	
36	LC12	29	23:59	BE	ROS	(UN)	48° 15.02	126° 39.95	2525		---	∅	MR	<input checked="" type="checkbox"/>	Close all NISKINS ↑ just to have them closed.
			00:35	BO			48° 15.01	126° 39.94			-	(24)		<input type="checkbox"/>	2 metal caps on
			01:01	EN			48° 14.99	126° 39.97			-			<input type="checkbox"/>	
37	LC12	29	01:18	BE		UN	48° 15.01	126° 39.95	2525		-			<input type="checkbox"/>	MPS
			02:34	BO			48° 15.05	126° 39.95		2000	-			<input type="checkbox"/>	
			03:14	EN			48° 15.02	126° 39.76			-			<input type="checkbox"/>	

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38	LC12	30	03:42	BC	NET		48°15.06	126°39.94	2527		-		MG	<input type="checkbox"/>	MPS NET PL UP @ 0.3m/sec
			04:57	BO			48°15.03	126°40.02		2030	-			<input type="checkbox"/>	
			06:03	EN			48°15.07	126°39.92			-			<input type="checkbox"/>	
39	MAYNE BAY	30	16:01	BC	ROS	U.S	48°58.96	125°18.76	42		-	1	HM	<input type="checkbox"/>	CAST FOR SOUNDER
			16:03	BO			48°58.96	125°18.76		40	-			<input type="checkbox"/>	CALIBRATION
			16:05	EN			48°58.96	125°18.76			-			<input type="checkbox"/>	PAR ON
40	MAYNE BAY	30	17:40	BO	NET	—	48°58.96	125°18.76	40	35	-		MG	<input type="checkbox"/>	SYRINGES ON
41	EFF02	31	02:31	BC	ROS	US	49°05.03	125°10.33	69		134 - 137	4	MR	<input checked="" type="checkbox"/>	WRONG STN NAME
			02:33	BO			49°05.03	125°10.34		64	-			<input type="checkbox"/>	IN HEADER
			02:38	EN			49°05.03	125°10.33			-			<input type="checkbox"/>	
42	EFF03	31	02:58	BC	ROS	—	49°04.27	125°09.42	118		—	∅	MR	<input checked="" type="checkbox"/>	
			03:01	BO			49°04.26	125°09.41		109	-			<input type="checkbox"/>	
			03:02	EN			49°04.26	125°09.41			-			<input type="checkbox"/>	
43	EFF04	31	03:19	BC	ROS	—	49°03.14	125°08.58	62		—	∅	MR	<input checked="" type="checkbox"/>	
			03:21	BO			49°03.12	125°08.58		55	-			<input type="checkbox"/>	
			03:22	EN			49°03.11	125°08.57			-			<input type="checkbox"/>	
44	EFF05	31	03:33	BC	ROS	US	49°02.55	125°09.15	205		123 - 133	11	MR	<input checked="" type="checkbox"/>	
			03:38	BO			49°02.55	125°09.15		191	-			<input type="checkbox"/>	
			03:52	EN			49°02.55	125°09.14			-			<input type="checkbox"/>	

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Notes:

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <u>MAY</u>			Year <u>2014</u>			Vessel <u>TULLY</u>			Cruise ID <u>2014-21</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
45	EFF 05	31	04:01	BE	NET		49°02.53	125°09.15	201		-		MO	<input type="checkbox"/> <input type="checkbox"/>	
			04:03	Bo			49°02.52	125°09.16		191	-			<input type="checkbox"/> <input type="checkbox"/>	
			04:12	EN			49°02.51	125°09.17			-			<input type="checkbox"/> <input type="checkbox"/>	
46	EFF 06	31	04:27	BE	ROS	—	49°01.77	125°09.18	149		—	∅	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			04:30	Bo			49°01.76	125°09.18		139	-			<input type="checkbox"/> <input type="checkbox"/>	
			04:33	EN			49°01.76	125°09.18			-			<input type="checkbox"/> <input type="checkbox"/>	
47	EFF 07	31	04:45	BE	ROS	—	49°01.25	125°09.39	118		—	∅	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			04:48	Bo			49°01.25	125°09.39		109	-			<input type="checkbox"/> <input type="checkbox"/>	
			04:50	EN			49°01.24	125°09.38			-			<input type="checkbox"/> <input type="checkbox"/>	
48	EFF 08	31	05:04	BE	ROS	—	49°00.64	125°10.22	87		—	∅	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			05:07	Bo			49°00.63	125°10.23		77	-			<input type="checkbox"/> <input type="checkbox"/>	
			05:08	EN			49°00.63	125°10.24			-			<input type="checkbox"/> <input type="checkbox"/>	
49	EFF 09	31	05:22	BE	ROS	—	49°00.14	125°10.80	64		—	∅	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			05:24	Bo			49°00.15	125°10.79		51	-			<input type="checkbox"/> <input type="checkbox"/>	
			05:26	EN			49°00.15	125°10.79			-			<input type="checkbox"/> <input type="checkbox"/>	
50	EFF 10	31	05:35	BE	ROS	—	48°59.84	125°11.23	99		—	∅	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			05:38	Bo			49°59.83	125°11.23		91	-			<input type="checkbox"/> <input type="checkbox"/>	
			05:41	EN			49°59.83	125°11.23			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				°	°			-			<input type="checkbox"/> <input type="checkbox"/>	

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DAILY SCIENCE LOG

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl. Cleaned	Comments
51	EFF 10	31	05:55	BE	NET		48°59.84	125°11.23	99		-		MG	<input type="checkbox"/>	
			05:59	BO			48°59.85	125°11.21		90	-			<input type="checkbox"/>	
			06:01	EN			48°59.85	125°11.20			-			<input type="checkbox"/>	
52	EFF 11	31	06:22	BE	ROS		48°59.14	125°11.07	101? 86		-	∅	MR	<input checked="" type="checkbox"/>	WRONG DEPTH IN HEADER
			06:24	BO			48°59.14	125°11.07		79	-			<input type="checkbox"/>	SHOULD BE 86
			06:26	EN			48°59.14	125°11.07			-			<input type="checkbox"/>	
53	EFF 12	31	06:52	BE	ROS	US	48°58.03	125°10.52	93		116-122	7	MR	<input checked="" type="checkbox"/>	
			06:57	BO			48°58.033	125°10.537		83.3	-			<input type="checkbox"/>	
			07:04	EN			48°58.048	125°10.576			-			<input type="checkbox"/>	
54	EFF 13	31	07:26	BE	ROS		48°56.477	125°10.680	104		-		MR	<input checked="" type="checkbox"/>	
			07:27	BO			48°56.473	125°10.682		93.6	-			<input type="checkbox"/>	
			07:30	EN			48°56.477	125°10.691			-			<input type="checkbox"/>	
55	LC01	31	09:25	BE	ROS	US	48°50.447	125°27.755	97		138-146	8	MR	<input checked="" type="checkbox"/>	
			09:28	BO			48°50.443	125°27.754		87.0	-			<input type="checkbox"/>	
			09:36	EN			48°50.447	125°27.726			-			<input type="checkbox"/>	
56	LC02	31	10:07	BE	ROS	US	48°48.689	125°30.931	112		147-161	15	MR	<input checked="" type="checkbox"/>	
			10:10	BO			48°48.762	125°30.911		102.0	-			<input type="checkbox"/>	
			10:20	EN			48°48.724	125°30.851			-			<input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/>	

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <u>May</u>			Year <u>2014</u>			Vessel <u>Tul</u>			Cruise ID <u>2014-21</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
							Latitude	Longitude							
57	LC03	31	11:03	BE	ROS	-	48° 46.942	125° 34.126	143		---	---	MB	<input checked="" type="checkbox"/>	
			11:06	BO			48° 46.907	125° 34.159		133.0	-			<input type="checkbox"/>	
			11:09	EN			48° 46.985	125° 34.178			-			<input type="checkbox"/>	
58	LC04	31	12:03	BE	ROS	US	48° 43.496	125° 40.690	167		162 - 172	11	MB	<input checked="" type="checkbox"/>	
			12:06	BO			48° 43.450	125° 40.720		156.3	-			<input type="checkbox"/>	
			12:18	EN			48° 43.462	125° 40.728			-			<input type="checkbox"/>	
59	LC05	31	13:06	BE	ROS	-	48° 40.049	125° 47.371	65		---	---	MB	<input checked="" type="checkbox"/>	
			13:07	BO			48° 40.077	125° 47.358		55.1	-			<input type="checkbox"/>	
			13:09	EN			48° 40.082	125° 47.348			-			<input type="checkbox"/>	
60	LC05	31	13:18	BE	NET	-	48° 40.1213	125° 47.3373	63.6		-	-	MB	<input type="checkbox"/>	
			13:20	BO			48° 40.142	125° 47.316		53	-			<input type="checkbox"/>	
			13:21	EN			48° 40.155	125° 47.315			-			<input type="checkbox"/>	
61	LC06	31	14:12	BE	ROS	US	48° 36.47	125° 53.95	91		173 - 181	9	H.M.	<input checked="" type="checkbox"/>	
			14:14	BO			48° 36.47	125° 53.94		82	-			<input type="checkbox"/>	
			14:24	EN			48° 36.46	125° 53.95			-			<input type="checkbox"/>	
62	LC06	31	14:43	BE	NET	-	48° 36.47	125° 53.91	92		---	---	MB	<input type="checkbox"/>	Bottle
			14:46	BO			48° 36.50	125° 53.90		82	-			<input type="checkbox"/>	
			14:47	EN			48° 36.51	125° 53.91			-			<input type="checkbox"/>	
			:				°	°			-			<input type="checkbox"/>	

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
63	LCO7	31	15:34	RE	ROS	—	48° 32.934	126° 0.494	126		—	—	MB	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			15:36	BO			48° 32.944	126° 0.498		1160	-			<input type="checkbox"/> <input type="checkbox"/>	
			15:39	EN			48° 32.935	126° 0.506			-			<input type="checkbox"/> <input type="checkbox"/>	
64	LCO8	31	16:26	RE	ROS	US	48° 29.443	126° 7.086	198		182-193	12	MB	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			16:29	BO			48° 29.443	126° 7.089		187.7	-			<input type="checkbox"/> <input type="checkbox"/>	
			16:44	EN			48° 29.533	126° 7.917			-			<input type="checkbox"/> <input type="checkbox"/>	
65	LCO8	31	17:20	RE	NET	—	48° 29.44	126° 06.98	198		-		MB	<input checked="" type="checkbox"/> <input type="checkbox"/>	Bottle
			17:29	BO			48° 29.44	126° 06.98		185	-			<input type="checkbox"/> <input type="checkbox"/>	
			17:31	EN			48° 29.44	126° 06.96			-			<input type="checkbox"/> <input type="checkbox"/>	
66	A2	31	18:29	RE	ROS	US	48° 22.720	126° 3.743	351		908	1	MB	<input checked="" type="checkbox"/> <input type="checkbox"/>	908 - 5m bottle
			18:36	BO			48° 22.727	126° 3.755		350	-			<input type="checkbox"/> <input type="checkbox"/>	
			18:44	EN			48° 22.730	126° 3.730			-			<input type="checkbox"/> <input type="checkbox"/>	
67	A2	31	18:54	RE	NET	—	48° 22.74	126° 03.71	352		-		MB/MB	<input type="checkbox"/> <input type="checkbox"/>	Bottle to 250m
			19:05	BO			48° 22.75	126° 03.70		250	-			<input type="checkbox"/> <input type="checkbox"/>	
			19:09	EN			48° 22.75	126° 03.71			-			<input type="checkbox"/> <input type="checkbox"/>	
68	ONC	31	20:15	RE	ROS	US	48° 26.00	126° 10.69	420		194-205	12	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			20:23	BO			48° 26.01	126° 10.69		411	-			<input type="checkbox"/> <input type="checkbox"/>	
			20:41	EN			48° 26.01	126° 10.65			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/> <input type="checkbox"/>	

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
69	LC09/A3	31	21:16	BE	ROS	US	48° 25.95	126° 13.67	605		206-227	22	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			21:28	Bo			48° 25.94	126° 13.70		602	-			<input type="checkbox"/> <input type="checkbox"/>	
			21:55	EN			48° 25.93	126° 13.68			-			<input type="checkbox"/> <input type="checkbox"/>	
70	LC09	31	22:04	BE	NET		48° 25.92	126° 13.69	610		-			<input type="checkbox"/> <input type="checkbox"/>	
			22:12	Bo			48° 25.94	126° 13.72		250	-			<input type="checkbox"/> <input type="checkbox"/>	
			:	EN			.	.			-			<input type="checkbox"/> <input type="checkbox"/>	PAR OFF
71	LC10	31	23:05	BE	ROS	US	48° 22.40	126° 20.23	1246		-			<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
			23:28	Bo			48° 22.42	126° 20.27		1243	-		MR	<input type="checkbox"/> <input type="checkbox"/>	
			23:49	EN			48° 22.45	126° 20.23			-			<input type="checkbox"/> <input type="checkbox"/>	
72	LC11	1	00:44	BE	ROS	US	48° 18.95	126° 26.67	1441		228-247	20	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			01:12	Bo			48° 18.90	126° 26.72		1475	-			<input type="checkbox"/> <input type="checkbox"/>	
			01:55	EN			48° 19.03	126° 26.69			-			<input type="checkbox"/> <input type="checkbox"/>	
73	LC12/A4	1	03:42	BE	ROS	-	48° 4.98	126° 39.93	?		-	∅	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			04:19	Bo			48° 14.97	126° 39.94	2523	2005	-			<input type="checkbox"/> <input type="checkbox"/>	
			04:55	EN			48° 14.98	126° 39.98			-			<input type="checkbox"/> <input type="checkbox"/>	
74	LD11	1	7:07	BE	NET	-	48° 28.74	126° 43.07	2778		-		MR/AM	<input type="checkbox"/> <input type="checkbox"/>	BONGO / 250m
			7:14	Bo			48° 28.73	126° 43.07		250	-			<input type="checkbox"/> <input type="checkbox"/>	
			7:19	EN			48° 28.75	126° 43.10			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/> <input type="checkbox"/>	

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
							Latitude	Longitude							
75	LD11	1	07:36	BE	ROS	US	48° 28.69	126° 43.02	1593		248-268	21	H.M	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			08:04	BO			48° 28.61	126° 43.27		1623	-			<input type="checkbox"/> <input type="checkbox"/>	
			08:56	EN			48° 28.36	126° 43.69			-			<input type="checkbox"/> <input type="checkbox"/>	
76	LD10	1	10:53	BE	ROS	US	48° 32.14	126° 36.63	1470		—	—	H.M	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			11:18	BO			48° 32.09	126° 36.68			-			<input type="checkbox"/> <input type="checkbox"/>	
			11:43	EN			48° 32.07	126° 36.68			-			<input type="checkbox"/> <input type="checkbox"/>	
77	LD09	1	12:45	BE	ROS	US	48° 35.70	126° 29.97	1052		909-910	2	MB	<input checked="" type="checkbox"/> <input type="checkbox"/>	Bottle 1 @ 20m (Sample 909) Bottle 2 @ 5m (Sample 910)
			13:04	BO			48° 35.70	126° 29.97		1059	-			<input type="checkbox"/> <input type="checkbox"/>	
			13:24	EN			48° 35.72	126° 29.98			-			<input type="checkbox"/> <input type="checkbox"/>	
78	LD09	1	13:38	BE	NET	—	48° 35.67	126° 29.89	1053		-		H.M/MB	<input type="checkbox"/> <input type="checkbox"/>	Bowco to 250
			13:47	BO			48° 35.69	126° 29.88		250	-			<input type="checkbox"/> <input type="checkbox"/>	
			13:51	EN			48° 35.71	126° 29.85			-			<input type="checkbox"/> <input type="checkbox"/>	
79	LD08	1	14:46	BE	ROS	U.S.	48° 39.16	126° 23.35	770		269-287	19	H.M	<input checked="" type="checkbox"/> <input type="checkbox"/>	PAR on
			15:00	BO			48° 39.16	126° 23.36			-			<input type="checkbox"/> <input type="checkbox"/>	
			15:30	EN			48° 39.17	126° 23.30			-			<input type="checkbox"/> <input type="checkbox"/>	
80	LD07	1	16:16	BE	ROS	—	48° 42.671	126° 16.838	533		—	—	MB	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			16:25	BO			48° 42.676	126° 16.818		507.3	-			<input type="checkbox"/> <input type="checkbox"/>	
			16:33	EN			48° 42.706	126° 16.807			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/> <input type="checkbox"/>	

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
81	LD06	1	17:18	BE	ROS	US	48° 46.21	126° 10.26	136		288 - 297	10	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			17:20	BO			48° 46.22	126° 10.25		126.5	-			<input type="checkbox"/> <input type="checkbox"/>	
			17:31	EN			48° 46.23	126° 10.22			-			<input type="checkbox"/> <input type="checkbox"/>	
82	LD 05	1	18:14	BE	ROS	—	48° 49.70	126° 3.56	90		—	—	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	Didn't stop until ROS came up out of water
			18:15	BO			48° 49.70	126° 3.56		80.1	-			<input type="checkbox"/> <input type="checkbox"/>	
			18:17	EN			48° 49.69	126° 3.55			-			<input type="checkbox"/> <input type="checkbox"/>	
83	LD04	1	19:01	BE	ROS	US	48° 53.22	125° 56.91	62		298 - 303	6	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			19:03	BO			48° 53.24	125° 56.90		52	-			<input type="checkbox"/> <input type="checkbox"/>	
			19:09	EN			48° 53.29	125° 56.90			-			<input type="checkbox"/> <input type="checkbox"/>	
84	LD04	1	19:16	BE	NET		48° 53.37	125° 56.92	61		-		MR	<input type="checkbox"/> <input type="checkbox"/>	Bouys to 55m
			19:17	BO			48° 53.39	125° 56.93		55	-			<input type="checkbox"/> <input type="checkbox"/>	
			19:18	EN			48° 53.39	125° 56.94			-			<input type="checkbox"/> <input type="checkbox"/>	
85	LD03	1	20:01	BE	ROS	—	48° 56.65	125° 50.40	47		—	0	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			20:02	BO			48° 56.66	125° 50.39		36	-			<input type="checkbox"/> <input type="checkbox"/>	
			20:03	EN			48° 56.67	125° 50.39			-			<input type="checkbox"/> <input type="checkbox"/>	
86	LD02	1	20:28	BE	ROS	US	48° 58.41	125° 47.03	44		304 - 313	10	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			20:29	BO			48° 58.41	125° 47.03		38	-			<input type="checkbox"/> <input type="checkbox"/>	
			20:37	EN			48° 58.54	125° 47.00			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				°	°			-			<input type="checkbox"/> <input type="checkbox"/>	

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
							Latitude	Longitude							
87	L002	1	20:41	BO	NET	—	48° 58.54	125° 46.97	42		-		MG	<input type="checkbox"/>	
			20:43	BE			48° 58.54	125° 46.97		37	-			<input type="checkbox"/>	
			20:44	EN			48° 58.54	125° 46.98			-			<input type="checkbox"/>	
88	L001	1	21:15	BE	ROS	US	49° 00.18	125° 44.13	37		314-318	5	MR	<input checked="" type="checkbox"/>	
			21:16	BO			49° 00.18	125° 44.13		30	-			<input type="checkbox"/>	
			21:20	EN			49° 00.17	125° 44.11			-			<input type="checkbox"/>	
89	L601	2	01:53	BE	ROS	US	49° 20.60	126° 35.35	57		319-324	6	MR	<input checked="" type="checkbox"/>	P on deck: 0.53 0.49 SYNTHES ON
			01:55	BO			49° 20.61	126° 35.40		43	-			<input type="checkbox"/>	
			02:01	EN			49° 20.64	126° 35.52			-			<input type="checkbox"/>	→
90	L602	2	02:32	BE	ROS	US	49° 18.70	126° 38.40	100		325-339	15	MR	<input checked="" type="checkbox"/>	→
			02:35	BO			49° 18.70	126° 38.48		92	-			<input type="checkbox"/>	
			02:44	EN			48° 18.67	126° 38.63			-			<input type="checkbox"/>	
91	L602	2	02:53	BE	NET	—	48° 18.68	126° 38.64	102		-		MG	<input type="checkbox"/>	
			02:58	BO			48° 18.72	126° 38.69		97	-			<input type="checkbox"/>	
			03:00	EN			48° 18.73	126° 38.68			-			<input type="checkbox"/>	
92	L603	2	04:00	BE	ROS	—	49° 14.95	126° 43.59	125		-	0	MR	<input checked="" type="checkbox"/>	Re-tryped
			04:03	BO			49° 14.97	126° 43.59		117	-			<input type="checkbox"/>	
			04:05	EN			49° 14.98	126° 43.57			-			<input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/>	

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Notes:

Cast 89 - 2601: Computer started acting up during upcast then totally froze
We had to bring writer on board and reboot computer / restart cast

Cast 90 - 2602: Oxygen trace very strange from 40 dbw on the upcast.
Did a rinse with syringe after the cast.

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							Latitude	Longitude							
93	LG04	2	04:51	BE	ROS	US	49° 11.23	126° 49.37	146		340-350	11	MR	<input checked="" type="checkbox"/>	
			04:55	BO			49° 11.21	126° 49.38		136	-			<input type="checkbox"/>	
			05:08	EN			49° 11.19	126° 49.43			-			<input type="checkbox"/>	
94	LG04	2	05:18	BE	NET	-	49° 11.18	126° 49.45	146		-		MG	<input type="checkbox"/>	
			05:24	BO			49° 11.17	126° 49.42		130	-			<input type="checkbox"/>	
			05:27	EN			49° 11.10	126° 49.58			-			<input type="checkbox"/>	
95	LG05	2	06:27	BE	ROS	-	49° 07.33	126° 55.34	279		-		MR	<input checked="" type="checkbox"/>	LONG TIME @ SLAF
			06:33	BO			49° 07.30	126° 55.41		272	-			<input type="checkbox"/>	
			06:39	EN			49° 07.24	126° 55.44			-			<input type="checkbox"/>	
96	LG06	2	7:48	BE	ROS	V.S.	49° 3.43	127° 1.29	981		351-369	19	MR	<input checked="" type="checkbox"/>	PARSET
			8:06	BO			49° 3.39	127° 1.38		1002	-			<input type="checkbox"/>	
			8:40	EN			49° 3.19	127° 1.50			-			<input type="checkbox"/>	
97	LG07	2	09:52	BE	ROS	-	48° 59.37	127° 07.26	1761		-		H.M.	<input checked="" type="checkbox"/>	WRONG FEELER NAME
			10:26	BO			48° 59.28	127° 07.40		1770	-			<input type="checkbox"/>	@ DEPT
			10:59	EN			48° 59.27	127° 07.32			-			<input type="checkbox"/>	CTD ONLY
98	LG08	2	12:28	BE	ROS	-	48° 55.37	127° 13.37	1853		-		H.M.	<input checked="" type="checkbox"/>	CTD ONLY
			13:11	BO			48° 55.45	127° 13.49		2069	-			<input type="checkbox"/>	
			13:42	EN			48° 55.46	127° 13.44			-			<input type="checkbox"/>	
			:				°	°			-			<input type="checkbox"/>	

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99	PLASTIC 3	2	17:44	BE	LOOP	-	49° 03.46	127° 32.51	2030		-		MG	<input type="checkbox"/>	10 MIN
			17:54	EN			49° 04.07	127° 33.15		4.5	-			<input type="checkbox"/>	Flow 7, 6, 7, 8 AVE 7
100	LOOP 100	2	19:34	BE	LOOP	-	49° 11.86	127° 40.58	2286	4.5	-		MG	<input type="checkbox"/>	1 SAL 2 CHL
101	LOOP 101	2	21:32	BE	LOOP	-	49° 20.79	127° 49.67	2504	4.5	-		"	<input type="checkbox"/>	" " "
102	LOOP 102	3	01:06	BE	LOOP	-	49° 36.85	128° 06.16	2313	4.5	-		"	<input type="checkbox"/>	" " "
103	LOOP 103	3	05:51	BE	LOOP	-	49° 47.74	128° 16.22	2085	4.5	-		"	<input type="checkbox"/>	" " "
104	LBP 6	3	12:19	BE	ROS	-	49° 48.59	128° 16.84	2076		-		H.M.	<input checked="" type="checkbox"/>	CTD ONLY
			12:57	BO			49° 48.62	128° 16.89		2005	-			<input type="checkbox"/>	
			13:	EN			49° 48.	128° 16.			-			<input type="checkbox"/>	
105	LBP 7	3	15:09	BE	ROS	US	49° 52.32	128° 11.23	2180		370 - 391	22	MRB	<input checked="" type="checkbox"/>	
			15:37	BO			49° 52.35	128° 11.27		2004	-			<input type="checkbox"/>	
			16:27	EN			49° 52.33	128° 11.43			-			<input type="checkbox"/>	
106	LBP 6	3	17:50	BE	ROS	US	49° 56.18	128° 5.53	784		-		H.M.	<input checked="" type="checkbox"/>	CTD ONLY
			18:05	BO			49° 56.18	128° 5.62		797	-			<input type="checkbox"/>	
			18:19	EN			49° 56.17	128° 5.68			-			<input type="checkbox"/>	
107	LBP 5	3	19:42	BE	ROS	US	49° 59.87	128° 00.02	1284		392 - 412	21	MR	<input checked="" type="checkbox"/>	wrong depth in weather
			20:01	BO			49° 59.83	128° 01.13		1220	-			<input type="checkbox"/>	
			20:38	EN			49° 59.83	128° 01.18			-			<input type="checkbox"/>	
			:				°	°			-			<input type="checkbox"/>	

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108	LBP5	3	20:47	BE	NET	—	49° 59. 62	128° 00 . 21	1293		-		MG	<input type="checkbox"/>	
			20:56	BO			49° 59. 73	128° 00 . 18		250	-			<input type="checkbox"/>	
			21:00	EN			49° 59. 76	128° 00 . 15			-			<input type="checkbox"/>	
109	LBP4	3	21:43	BE	ROS	—	50° 01 . 39	127° 58 . 05	1050?		—	∅	MR	<input checked="" type="checkbox"/>	PAR ON Sounder bouncing
			22:03	BO			50° 01 . 40	127° 58 . 08		1088	-			<input type="checkbox"/>	
			22:19	EN			50° 01 . 41	127° 58 . 15			-			<input type="checkbox"/>	
110	LBP3	3	22:59	BE	ROS	US	50° 03 . 20	127° 55 . 32	168		413 - 433	21	MR	<input checked="" type="checkbox"/>	
			23:03	BO			50° 03 . 21	127° 55 . 31		158	-			<input type="checkbox"/>	
			23:17	EN			50° 03 . 23	127° 55 . 30			-			<input type="checkbox"/>	
111	LBP3	3	23:24	BE	NET	—	50° 03 . 24	127° 55 . 24	163		-		MG	<input type="checkbox"/>	
			23:30	BO			50° 03 . 24	127° 55 . 24		155	-			<input type="checkbox"/>	
			23:33	EN			50° 03 . 24	127° 55 . 23			-			<input type="checkbox"/>	
112	LBP2	3	23:53	BE	NET	—	50° 04 . 06	127° 54 . 15	92		-		MG	<input type="checkbox"/>	
			23:57	BO			50° 04 . 05	127° 54 . 14		90	-			<input type="checkbox"/>	
			23:58	EN			50° 04 . 04	127° 54 . 15			-			<input type="checkbox"/>	
113	LBP2	4	00:04	BE	ROS	—	50° 04 . 06	127° 54 . 12	96		—	∅	MR	<input checked="" type="checkbox"/>	
			00:05	BO			50° 04 . 06	127° 54 . 11		84	-			<input type="checkbox"/>	
			00:07	EN			50° 04 . 06	127° 54 . 09			-			<input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/>	

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114	LBP1	4	00:27	BE	ROS	US	50°04.80	127°52.80	52		-	0	MR	<input checked="" type="checkbox"/>	BOTTLE NOT
			00:28	BO			50°04.80	127°52.80		43	-			<input type="checkbox"/>	HOBBS
			00:30	EN			50°04.79	127°52.79			-			<input type="checkbox"/>	
115	LOOP115	4	01:43	BE	LOOP	/	50°08.77	128°03.49	159	4.5	-		MG	<input type="checkbox"/>	SYRINGES ON
116	LOOP116	4	04:59	BE	LOOP	/	50°29.54	128°26.50	189	4.5	-		MG	<input type="checkbox"/>	1 SAL 2 CHL
117	CPE2	4	07:01	BE	ROS	-	50°43.08	128°39.79	124		-		MB	<input checked="" type="checkbox"/>	
			07:03	BO			50°43.10	128°39.77		116.0	-			<input type="checkbox"/>	
			07:05	EN			50°43.13	128°39.75			-			<input type="checkbox"/>	
118	CPE2	4	07:13	BE	NET	-	50°43.22	128°39.74	122		-		MB+HM	<input type="checkbox"/>	
			07:17	BO			50°43.27	128°39.79		110	-			<input type="checkbox"/>	
			07:18	EN			50°43.28	128°39.78			-			<input type="checkbox"/>	
119	LQ03	4	09:13	BE	ROS	US	50°39.70	129°01.95	1270		-		H.M	<input checked="" type="checkbox"/>	PAR-OFF
			09:38	BO			50°39.69	129°01.96		1275	-			<input type="checkbox"/>	
			10:01	EN			50°39.71	129°01.89			-			<input type="checkbox"/>	
120	LQ03	4	10:10	BE	NET	-	50°39.75	129°01.88	1222		-		HM+MB	<input type="checkbox"/>	
			10:19	BO			50°39.78	129°01.84		250	-			<input type="checkbox"/>	
			10:23	EN			50°39.79	129°01.82			-			<input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/>	

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							Latitude	Longitude							
121	J122	4	11:53	BE	ROS	-	50° 39.82	129° 17.21	1327		-	-	MS	<input checked="" type="checkbox"/>	
			12:20	BO			50° 39.83	129° 17.20		1353	-			<input type="checkbox"/>	
			12:40	EN			50° 39.85	129° 17.11			-			<input type="checkbox"/>	
122	J122	4	12:49	BE	NET	-	50° 39.86	129° 17.09		1237	-	-	MS/HM	<input type="checkbox"/>	
			12:57	BO			50° 39.88	129° 17.05	250		-			<input type="checkbox"/>	
			13:01	EN			50° 39.88	129° 17.03			-			<input type="checkbox"/>	
123	CS00	4	16:16	BE	ROS	-	50° 27.76	129° 54.89	2176		434-454	21	HM	<input checked="" type="checkbox"/>	
			16:50	BO			50° 27.75	129° 54.79			-			<input type="checkbox"/>	
			17:41	EN			50° 27.67	129° 54.83			-			<input type="checkbox"/>	
124	CS00	4	17:48	BE	NET	UN	50° 27.67	129° 54.82	2176		-			<input type="checkbox"/>	
			17:58	BO			50° 27.65	129° 54.80		250	-			<input type="checkbox"/>	Sample to 250
			18:02	EN			50° 27.63	129° 54.81			-			<input type="checkbox"/>	
125	CS00	4	18:23	BE	NET	UN	50° 27.66	129° 54.94	2176		-			<input type="checkbox"/>	
			:	BO			.	.		2005	-			<input type="checkbox"/>	MPS to 2000..
			:	EN			.	.			-			<input type="checkbox"/>	
126	LOOP 126	4	18:25	BE	LOOP	-	50° 27.66	129° 54.94	2176	4.5	-		TF	<input type="checkbox"/>	Forgot to sample 5m
127	PLASTIC 4	4	19:04	BE	LOOP	-	50° 27.63	129° 54.93	2174	4.5	-		MG	<input type="checkbox"/>	Net - collected loop
			19:20	EN			50° 27.64	129° 54.93			-			<input type="checkbox"/>	↑ 2x CTD 1x SAE instead of cast 453
			:				.	.			-			<input type="checkbox"/>	2.5 AVE 16H.00 OOPS

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							Latitude	Longitude							
128	CS01	4	21:58	BE	ROS	—	50°34.90	129°41.46	2107		—	∅	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	→
			22:30	BO			50°34.97	129°41.45			-			<input type="checkbox"/> <input type="checkbox"/>	
			23:00	EN			50°34.97	129°41.51			-			<input type="checkbox"/> <input type="checkbox"/>	
129	CS01	4	23:23	BE	NET	—	50°34.92	129°41.57	2106				MG	<input type="checkbox"/> <input type="checkbox"/>	Bongo to 350m
			23:36	BO			50°34.93	129°41.61		350	-			<input type="checkbox"/> <input type="checkbox"/>	
			23:42	EN			50°34.94	129°41.61			-			<input type="checkbox"/> <input type="checkbox"/>	
130	CS02	5	01:04	BE	ROS	US	50°41.27	129°27.93	1901		455-475	21	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	Bot 21 closed to test but not used.
			01:39	BO			50°41.27	129°27.97		1910	-			<input type="checkbox"/> <input type="checkbox"/>	
			:	EN			50°41.	129°27.			-			<input type="checkbox"/> <input type="checkbox"/>	
131	CS02	5	02:38	BE	NET	—	50°41.27	129°28.03	1902				MG	<input type="checkbox"/> <input type="checkbox"/>	
			2:49	BO			50°41.26	129°28.01		300	-			<input type="checkbox"/> <input type="checkbox"/>	
			2:54	EN			50°41.27	129°27.02			-			<input type="checkbox"/> <input type="checkbox"/>	
132	CS03	5	03:45	BE	ROS	—	50°45.57	129°20.04	239		—	∅	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			03:51	BO			50°45.57	129°20.04		233	-			<input type="checkbox"/> <input type="checkbox"/>	
			03:57	EN			50°45.57	129°20.09			-			<input type="checkbox"/> <input type="checkbox"/>	
133	CS03	5	04:01	BE	NET	—	50°45.56	129°20.09	240					<input type="checkbox"/> <input type="checkbox"/>	
			04:10	BO			50°45.59	129°20.04		235	-			<input type="checkbox"/> <input type="checkbox"/>	
			04:16	EN			50°45.54	129°20.04			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				∅	∅			-			<input type="checkbox"/> <input type="checkbox"/>	

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Notes:

2223, 4 JUNE 02: started file 6 on the TSG and switched to other filter.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <u>JUN</u>			Year <u>2014</u>			Vessel <u>TULLY</u>			Cruise ID <u>2014-21</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
134	CS04	5	05:03	BE	ROS	US	50°49.15	129°13.10	99		476-483	8	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			05:05	BO			50°49.13	129°13.14		90	-			<input type="checkbox"/> <input type="checkbox"/>	
			05:13	EN			50°49.10	129°13.24			-			<input type="checkbox"/> <input type="checkbox"/>	
135	CS04	5	05:25	BE	NET	✓	50°49.02	129°13.22	101		-			<input type="checkbox"/> <input type="checkbox"/>	
			05:29	BO			50°49.06	129°13.25		91	-			<input type="checkbox"/> <input type="checkbox"/>	
			05:31	EN			50°49.05	129°13.29			-			<input type="checkbox"/> <input type="checkbox"/>	
136	ODAS	5	08:16	BE	ROS	-	50°51.27	129°51.29	2049		-		MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			08:51	BO			50°51.13	129°51.41		2005	-			<input type="checkbox"/> <input type="checkbox"/>	
			09:26	EN			50°51.11	129°51.46			-			<input type="checkbox"/> <input type="checkbox"/>	
137	ODAS	5	09:35	BE	NET		50°51.11	129°51.46	2059		-		MB+TF	<input type="checkbox"/> <input type="checkbox"/>	
			09:45	BO			50°51.11	129°51.53		250	-			<input type="checkbox"/> <input type="checkbox"/>	
			09:49	EN			50°51.11	129°51.53			-			<input type="checkbox"/> <input type="checkbox"/>	
138	CS38	5	11:53	BE	ROS	-	50°59.98	129°27.02	221		-		MB	<input checked="" type="checkbox"/> <input type="checkbox"/>	PAR ON
			11:57	BO			50°59.98	129°27.01		211.5	-			<input type="checkbox"/> <input type="checkbox"/>	
			12:02	EN			50°59.99	129°26.99			-			<input type="checkbox"/> <input type="checkbox"/>	
139	CS38	5	12:10	BE	NET	-	50°59.99	129°26.99	221		-		HM/TF	<input type="checkbox"/> <input type="checkbox"/>	
			12:17	BO			50°59.99	129°26.97		210	-			<input type="checkbox"/> <input type="checkbox"/>	
			12:21	EN			51°00.00	129°26.99			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				°	°			-			<input type="checkbox"/> <input type="checkbox"/>	

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
140	CS05	5	14:18	BE	ROS	-	50° 55.98	128° 59.97	65		-	-	H.A.	<input checked="" type="checkbox"/>	
			14:19	BO			50° 55.99	128° 59.99		55	-			<input type="checkbox"/>	
			14:20	EN			50° 56.00	128° 59.98			-			<input type="checkbox"/>	
141	CS05	5	14:26	BE	NET	-	50° 55.98	128° 59.98	65		-	-	MB+TF	<input type="checkbox"/>	BONGO
			14:29	BO			50° 55.99	128° 59.99		55	-			<input type="checkbox"/>	
			14:30	EN			50° 55.99	128° 59.99			-			<input type="checkbox"/>	
142	CS1B	5	15:57	BE	ROS	-	50° 53.00	128° 40.06	74		-	-	M.B	<input checked="" type="checkbox"/>	
			15:59	BO			50° 53.00	128° 40.06		63.8	-			<input type="checkbox"/>	
			16:00	EN			50° 52.99	128° 40.06			-			<input type="checkbox"/>	
143	CS1B	5	16:05	BE	NET	-	50° 53.00	128° 40.07	74		-	-	H.A+TM	<input type="checkbox"/>	BONGO
			16:07	BO			50° 53.01	128° 40.07		64	-			<input type="checkbox"/>	
			16:08	EN			50° 53.00	128° 40.06			-			<input type="checkbox"/>	
144	CS06	5	17:22	BE	ROS	US	51° 00.04	128° 51.83	64		484-490	7	H.A.	<input checked="" type="checkbox"/>	
			17:23	BO			51° 00.04	128° 51.84		54	-			<input type="checkbox"/>	
			17:31	EN			51° 00.08	128° 51.87			-			<input type="checkbox"/>	
145	CS06	5	17:44	BE	NET	-	51° 00.07	128° 51.87			-	-		<input type="checkbox"/>	BONGO
			17:47	BO			51° 00.06	128° 51.87	64		-			<input type="checkbox"/>	
			17:49	EN			50° 59.99	128° 51.87		54	-			<input type="checkbox"/>	
			:				°	°			-			<input type="checkbox"/>	

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
146	#3	5	18:10	BO	grab	-	50° 59.15	128° 52.14	60	67	-	-	MG, DY	<input type="checkbox"/> <input type="checkbox"/>	Sand
147	#3	5	18:21	BO	grab	-	50° 59.25	128° 52.36	60	67	-	-	MG, DY	<input type="checkbox"/> <input type="checkbox"/>	Sand + 1 clam
148	#3	5	18:41	BO	grab	-	50° 58.39	128° 54.04	65	70	-	-	MG	<input type="checkbox"/> <input type="checkbox"/>	4 mussels
149	#5	5	19:29	BO	grab	-	50° 58.02	128° 54.92	68		-	-	MG	<input type="checkbox"/> <input type="checkbox"/>	ROCKS
150	#1	5	20:34	BO	GRAB	-	50° 52.15	129° 04.29	50		-	-	MG	<input type="checkbox"/> <input type="checkbox"/>	
151	#1	5	20:38	BO	GRAB	-	50° 53.15	129° 04.29	49		-	-	MG	<input type="checkbox"/> <input type="checkbox"/>	ROCKS
152	#2	5	20:52	BO	GRAB	-	50° 53.05	129° 04.23	47		-	-	MG	<input type="checkbox"/> <input type="checkbox"/>	NOTHING
153	A2	5	21:00	BO	GRAB	-	50° 53.0520	129° 04.1889	46		-	-	MG	<input type="checkbox"/> <input type="checkbox"/>	ROCKS
154	#2	5	21:05	BO	GRAB	-	50° 53.0436	129° 04.1819	47		-	-	MG	<input type="checkbox"/> <input type="checkbox"/>	ROCKS
155	#6	5	21:31	BO	GRAB	-	50° 52.6039	129° 06.4462	43		-	-	MG	<input type="checkbox"/> <input type="checkbox"/>	WATER
156	#6	5	21:34	BO	GRAB	-	50° 52.6046	129° 06.4306	41		-	-	MG	<input type="checkbox"/> <input type="checkbox"/>	GRAVEL
157	#3	5	23:40	BO	GRAB	-	50° 59.1407	128° 52.0748	68		-	-	MG	<input type="checkbox"/> <input type="checkbox"/>	SAND
158	#3	5	23:50	BE	CAM		50° 59.15	128° 52.09	68		-		MG/DY	<input type="checkbox"/> <input type="checkbox"/>	CAMERA
			23:58	BO			50° 59.15	128° 52.09			-			<input type="checkbox"/> <input type="checkbox"/>	
		6	00:10	BE			50° 59.15	128° 52.10			-			<input type="checkbox"/> <input type="checkbox"/>	
			00:14	EN			50° 59.15	128° 52.10			-			<input type="checkbox"/> <input type="checkbox"/>	
159	CS07	6	01:11	BL	ROS	-	51° 04.46	128° 44.01	66		-	∅	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			01:13	BO			51° 04.47	128° 43.98		56	-			<input type="checkbox"/> <input type="checkbox"/>	
			01:14	EN			51° 04.47	128° 43.97			-			<input type="checkbox"/> <input type="checkbox"/>	

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <u>JUN</u>			Year <u>2014</u>			Vessel <u>TULLY</u>			Cruise ID <u>2014-21</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
160	CS07	6	01:38	BE	CAM	✓	51°04.4714	128°43.9975	66		-		MG/DY	<input type="checkbox"/> <input type="checkbox"/>	CAMERA
			01:44	BO			51°04.4712	128°44.0000			-			<input type="checkbox"/> <input type="checkbox"/>	
			01:57	BE			51°04.4900	128°44.0320			-			<input type="checkbox"/> <input type="checkbox"/>	
			02:01	EN			51°04.4882	128°44.0319			-			<input type="checkbox"/> <input type="checkbox"/>	
161	CS07	6	02:13	BE	NET		51°04.49	128°44.09	65		-		MG	<input type="checkbox"/> <input type="checkbox"/>	RONGO
			02:16	BO			51°04.47	128°44.10		60	-			<input type="checkbox"/> <input type="checkbox"/>	
			02:18	EN			51°04.46	128°44.11			-			<input type="checkbox"/> <input type="checkbox"/>	
162	CS08	6	03:12	BE	ROS	✓	51°08.48	128°36.01	145		-	∅	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			03:15	BO			51°08.49	128°36.01		135	-			<input type="checkbox"/> <input type="checkbox"/>	
			03:18	EN			51°08.48	128°36.01			-			<input type="checkbox"/> <input type="checkbox"/>	
163	CS08	6	03:24	BE	NET	✓	51°08.46	128°36.03	145		-		MG	<input type="checkbox"/> <input type="checkbox"/>	
			03:27	BO			51°08.46	128°36.02		135	-			<input type="checkbox"/> <input type="checkbox"/>	
			03:29	EN			51°08.46	128°36.01			-			<input type="checkbox"/> <input type="checkbox"/>	
164	CS09	6	04:18	BE	ROS	US	51°12.52	128°27.90	195		491-502	12	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			04:23	BO			51°12.46	128°27.94		186	-			<input type="checkbox"/> <input type="checkbox"/>	
			04:37	EN			51°12.48	128°28.00			-			<input type="checkbox"/> <input type="checkbox"/>	
165	CS09	6	04:42	BE	NET	✓	51°12.47	128°27.99	196		-			<input type="checkbox"/> <input type="checkbox"/>	
			04:48	BO			51°12.47	128°27.96		190	-			<input type="checkbox"/> <input type="checkbox"/>	
			04:51	EN			51°12.47	128°27.98			-			<input type="checkbox"/> <input type="checkbox"/>	

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
166	CS10	6	05:40	BC	ROS	—	51°16.52	128°20.01	80		—	∅	MR	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			05:43	Bo			51°16.51	128°20.04		72	-			<input type="checkbox"/> <input type="checkbox"/>	
			05:44	EN			51°16.52	128°20.05			-			<input type="checkbox"/> <input type="checkbox"/>	
167	CS10	6	05:49	BC	NET	—	51°16.51	128°20.07	81				MG	<input type="checkbox"/> <input type="checkbox"/>	
			05:52	Bo			51°16.54	128°20.08		72	-			<input type="checkbox"/> <input type="checkbox"/>	
			05:53	EN			51°16.54	128°20.10			-			<input type="checkbox"/> <input type="checkbox"/>	
168	UBC 7	6	08:50	BC	ROS	—	51°29.97	127°48.94	160		—	—	H.M	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			08:52	Bo			51°29.97	127°48.94		150	-			<input type="checkbox"/> <input type="checkbox"/>	
			08:55	EN			51°29.96	127°48.95			-			<input type="checkbox"/> <input type="checkbox"/>	
169	UBC 7	6	09:02	BC	NET	—	51°29.95	127°48.98	160		—	—	M.B.T.F	<input type="checkbox"/> <input type="checkbox"/>	BONGO
			09:07	Bo			51°29.95	127°48.97		150	-			<input type="checkbox"/> <input type="checkbox"/>	
			09:09	EN			51°29.96	127°48.95			-			<input type="checkbox"/> <input type="checkbox"/>	
170	CPE1	6	12:19	BC	ROS	U.S	50°59.94	127°49.92	156		503	1	MB	<input checked="" type="checkbox"/> <input type="checkbox"/>	
			12:22	Bo			50°59.94	127°49.90		146.9	-			<input type="checkbox"/> <input type="checkbox"/>	
			12:25	EN			50°59.94	127°49.88			-			<input type="checkbox"/> <input type="checkbox"/>	
171	CPE1	6	12:36	BC	NET	—	50°59.96	127°49.87	156		—	—	H.M/B.F	<input type="checkbox"/> <input type="checkbox"/>	Bongo
			12:41	Bo			50°59.90	127°49.85		145	-			<input type="checkbox"/> <input type="checkbox"/>	
			12:43	EN			50°59.89	127°49.82			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				°	°			-			<input type="checkbox"/> <input type="checkbox"/>	

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
172	CPF 2	7	07:11	BE	ROS	-	49° 27 . 90	124° 29 . 93	329		-	-	MB	<input checked="" type="checkbox"/>	
			07:17	BO			49° 27 . 89	124° 29 . 95		321	-			<input type="checkbox"/>	
			07:24	EN			49° 27 . 88	124° 29 . 96			-			<input type="checkbox"/>	
173	CPF 2	7	07:32	BE	NET	-	49° 27 . 87	124° 29 . 95	330		-	-	HM/TF	<input type="checkbox"/>	BONGO
			07:34	BO			49° 27 . 87	124° 29 . 95		50	-			<input type="checkbox"/>	
			07:35	EN			49° 27 . 87	124° 29 . 95			-			<input type="checkbox"/>	
174	CPF 2	7	07:45	BE	NET	-	49° 27 . 96	124° 30 . 03	330		-	-	HM/MB/TF	<input type="checkbox"/>	BONGO
			07:56	BO			49° 27 . 93	124° 30 . 04		320	-			<input type="checkbox"/>	
			08:01	EN			49° 27 . 91	124° 30 . 06			-			<input type="checkbox"/>	
175	CPF 1	7	09:48	BE	ROS	-	49° 21 . 90	124° 04 . 82	240		-	-	H.M.	<input checked="" type="checkbox"/>	
			09:52	BO			49° 21 . 91	124° 04 . 80		233	-			<input type="checkbox"/>	
			09:57	EN			49° 21 . 93	124° 04 . 76			-			<input type="checkbox"/>	
176	CPF 1	7	10:03	BE	NET	-	49° 21 . 94	124° 04 . 75	248		-	-	MB/TF/HM	<input type="checkbox"/>	BONGO
			10:05	BO			49° 21 . 95	124° 04 . 74		50	-			<input type="checkbox"/>	
			10:06	EN			49° 21 . 97	124° 04 . 73			-			<input type="checkbox"/>	
177	CPF 1	7	10:14	BE	NET	-	49° 21 . 95	124° 04 . 72	245		-	-	MB/TF/HM	<input type="checkbox"/>	BONGO
			10:21	BO			49° 21 . 95	124° 04 . 72		235	-			<input type="checkbox"/>	
			10:25	EN			49° 21 . 96	124° 04 . 71			-			<input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/>	

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Month <i>JUNE</i>			Year <i>2014</i>				Vessel <i>TULLY</i>				Cruise ID <i>2014-21</i>				
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude Longitude		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
178	GEO 1	7	12:49	BE	ROS	-	49° 14 . 95	123° 44 . 90	402		-	-		<input checked="" type="checkbox"/> <input type="checkbox"/>	
			12:54	BO			49° 14 . 95	123° 44 . 88		392.6	-			<input type="checkbox"/> <input type="checkbox"/>	
			13:01	EN			49° 14 . 96	123° 44 . 89			-			<input type="checkbox"/> <input type="checkbox"/>	
179	GEO 1	7	13:15	BO			49° 14 . 98	123° 44 . 80	402		-	-	TKG	<input type="checkbox"/> <input type="checkbox"/>	MULTI NET
			13:29	BO			49° 14 . 99	123° 44 . 97		390	-			<input type="checkbox"/> <input type="checkbox"/>	
			13:36	EN			49° 14 . 99	123° 44 . 88			-			<input type="checkbox"/> <input type="checkbox"/>	
180	GEO 1	7	13:58	BO			49° 14 . 96	123° 44 . 90	402		-		MBHLM	<input type="checkbox"/> <input type="checkbox"/>	BONGO
			14:12	BO			49° 14 . 94	123° 44 . 88		390	-			<input type="checkbox"/> <input type="checkbox"/>	
			14:19	EN			49° 14 . 92	123° 44 . 88			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				° .	° .			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				° .	° .			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				° .	° .			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				° .	° .			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				° .	° .			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				° .	° .			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				° .	° .			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				° .	° .			-			<input type="checkbox"/> <input type="checkbox"/>	
			:				° .	° .			-			<input type="checkbox"/> <input type="checkbox"/>	

Event Type:
 BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
 SET = Fish Set

LOOP = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 =

Bottle Firing Method:
 US = Up / Stop (default)
 UN = Up / No stop
 DN = Down / No stop

Time Code:
 BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Notes: _____