

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2013-48
+ 2013-15

DATE:

From: JULY 23 /13

To: AUG 4 /13

VESSEL:

W.E. RICHER

PROJECT(S):

BOLDT ^{La Perouse} HERRING

(FLOSTRAND SARDINE)
Aug 4/13 - Aug 16/13

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: DGL

Data acquisition program: _____

CTD deck unit make: SEABIRD model: 11 serial number: 424

Primary CTD

Make: SEABIRD model: 9 serial number: 506

Primary temperature serial number: 2038

Primary conductivity serial number: 1763

Secondary temperature serial number: 4663

Secondary conductivity serial number: 3394

Transmissometer: _____ Model: _____ s/n: _____

Transmissometer: _____ Model: _____ s/n: _____

Fluorometer: Model WCT LABS Cable gain: _____ s/n: 2215 P S or NO pump?

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

Oxygen sensor: SEABIRD Model: 43 s/n: 1430 P S or NO pump?

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

Other sensors: PH - SEABIRD s/n: 0851 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?

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?

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

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

DAILY SCIENCE LOG

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Page 1 of 7

SARDINE 2013-15

Month <u>AUG</u> <u>UTC</u>			Year <u>2013</u>			Vessel <u>R/V Fisher</u> <u>meters (-3)</u>			Cruise ID <u>2013-15</u>			Trawl <u>6.4 x</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	Notes/Comments
							Latitude	Longitude							
1	1	7	03:53	BE	CTD		40°57.990	125°59.500	53	48	-	-	SM	☐	grid 101 Trawl
			03:04	BO			40°57.978	125°59.505			-			☐	Set 1, start night 1
			03:05	EN			40°57.978	125°59.512			-			☐	
			:				.	.			-			☐	
2	1	7	03:15	BO	NET		40°57.990	125°59.512	52	42	-			☐	grid 101 Bongo
			:				.	.			-			☐	
3	2	7	13:17	BE	CTD		40°57.011	126°43.352	447	440	-	-	SM	☐	grid 96 - nearby
			13:26	BO			40°57.038	126°43.378			-			☐	Set 6, end night 1
			13:34	EN			40°56.959	126°43.420			-			☐	
			:				.	.			-			☐	
4	2	7	13:44	BO	NET		40°56.959	126°43.420	447	250	-			☐	grid 96 nearby
			:				.	.			-			☐	
5	3	8	02:05	BE	CTD		50°24.528	128°5.482	66	60	-		LF	☐	grid 10 - set 7
			02:11	BO			50°24.526	128°5.450			-			☐	start night 2
			02:12	EN			50°24.528	128°5.446			-			☐	NOT SURE WHERE
			:				.	.			-			☐	FILE SAVED
6	3	8	02:22	BO	NET		50°24.528	128°5.446	62	55	-		SM	☐	grid 10 - set 7
			:				.	.			-			☐	start night 2
			:				.	.			-			☐	

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:

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DAILY SCIENCE LOG

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Page 2 of 7

Month <u>Aug</u>			Year <u>2013</u>		Vessel <u>R/V Fisher</u>		Cruise ID <u>2013-13</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
7		8	12:05	BE	CTD	BE	50° 35.449	128° 23.178	82	203	-		SR	☒	Trawl Grid 3, Set 12 end night 2
			12:07	BO			50° 35.459	128° 23.167			-			☐	
			12:08	EN			50° 35.476	128° 23.155			-			☐	
			:				.	.			-			☐	
8		8	12:18	BO	NET		50° 35.476	128° 23.155	84	74	-			☐	Bongo VNH
			:				.	.			-			☐	
9		9	02:50	BE	CTD		50° 13.129	128° 5.495	134	129	-		SR	☒	See notes =>
			02:53	BO			50° 13.122	128° 5.509			-			☐	
			02:56	EN			50° 13.115	128° 5.521			-			☐	Trawl Grid 10, Set 13 night 3 start.
			:				.	.			-			☐	
10		9	03:06	BO	NET		50° 13.115	128° 5.521	133	123	-			☐	Bongo VNH
			:				.	.			-			☐	
11		9	11:49	BE	CTD		49° 51.470	127° 48.949	764	500	- 1	1	SR	☒	Trawl grid = 36 Set 17 end of night 2
			11:59	BO			49° 51.322	127° 49.014			-			☐	Sal Sample
			12:12	EN			49° 51.170	127° 48.994			-			☐	
			:				.	.			-			☐	
12		9	12:22	BO	NET		49° 51.170	127° 48.994	768	250	-			☐	Bongo VNH
			:				.	.			-			☐	
			:				.	.			-			☐	

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 UN = Up / No stop
 DN = Down / No stop

Notes:

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Went to clean
Flour - There was it.
↳ white cap and over it.
pilled off and cleaned,
but not we if cap is to
stay on. Never seen it before
on other CDs. Crew is not
cleaner. ^{CD's} sure it was ever removed.
probably antic

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 3 of 7

Month <u>Aug</u>				Year <u>2013</u>		Vessel <u>River</u>				Cruise ID <u>2013-15</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
<u>13</u>		<u>10</u>	<u>02:10</u>	<u>BE</u>	<u>CTD</u>		<u>50° 2.920</u>	<u>127° 41.312</u>	<u>62</u>	<u>57</u>	-		<u>SR</u>	☒	<u>Trawl grid = 26</u>
			<u>02:11</u>	<u>BO</u>			<u>50° 2.918</u>	<u>127° 41.351</u>			-			☐	<u>Trawl set = 20</u>
			<u>02:12</u>	<u>EN</u>			<u>50° 2.919</u>	<u>127° 41.363</u>			-			☐	<u>1st station of night</u>
			:				.	.			-			☐	
<u>14</u>		<u>10</u>	<u>02:22</u>	<u>BO</u>	<u>NET</u>		<u>50° 2.917</u>	<u>127° 41.368</u>	<u>59</u>	<u>50</u>	-			☐	<u>Bongo unit</u>
			:				.	.			-			☐	
<u>15</u>		<u>10</u>	<u>11:47</u>	<u>BE</u>	<u>CTD</u>		<u>49° 51.961</u>	<u>127° 32.563</u>	<u>79</u>	<u>74</u>	-		<u>SR</u>	☒	<u>GRID = 38</u>
			<u>11:49</u>	<u>BO</u>			<u>49° 51.457</u>	<u>127° 32.567</u>			-			☐	<u>set 25 - end of</u>
			<u>11:51</u>	<u>EN</u>			<u>49° 52.024</u>	<u>127° 32.582</u>			-			☐	<u>night shift</u>
			:				.	.			-			☐	
<u>16</u>		<u>10</u>	<u>12:01</u>	<u>BO</u>	<u>NET</u>		<u>49° 52.024</u>	<u>127° 32.582</u>	<u>79</u>	<u>70</u>	-			☐	<u>Bongo unit</u>
			:				.	.			-			☐	
<u>17</u>		<u>11</u>	<u>02:46</u>	<u>BE</u>	<u>CTD</u>		<u>49° 19.790</u>	<u>127° 7.175</u>	<u>167</u>	<u>162</u>	-		<u>SR</u>	☒	<u>Trawl grid 70</u>
			<u>02:50</u>	<u>BO</u>			<u>49° 19.810</u>	<u>127° 7.120</u>			-			☐	<u>Trawl set = 26</u>
			<u>02:53</u>	<u>EN</u>			<u>49° 19.823</u>	<u>127° 7.244</u>			-			☐	<u>1st Trawl station</u>
			:				.	.			-			☐	<u>of night</u>
<u>18</u>		<u>11</u>	<u>03:03</u>	<u>BO</u>	<u>NET</u>		<u>49° 19.823</u>	<u>127° 7.244</u>	<u>166</u>	<u>156</u>	-			☐	<u>Bongo unit</u>
			:				.	.			-			☐	
			:				.	.			-			☐	

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

Notes:

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

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DAILY SCIENCE LOG

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Page 4 of 7

Month <u>Aug</u>				Year <u>2013</u>		Vessel <u>Liller</u>				Cruise ID <u>2013-13</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
19		11	11:06	BE	CTD		49° 42.514	127° 24.735	113	100	-			☒	Set 32 end of night S.
			11:09	BO			49° 42.536	127° 24.742			-			☐	
			11:11	EN			49° 42.583	127° 24.752			-			☐	
			:				°	°			-			☐	
20		11	11:21	BO	NET		49° 42.553	127° 24.732	109	100	-			☐	Bongo VNH
			:				°	°			-			☐	
21		12	2:32	BE	CTD		49° 41.113	126° 59.178	36	31	-			☒	Set 33, Grid 52 1st set of night G.
			2:34	BO			49° 41.124	126° 59.178			-			☐	
			2:35	EN			49° 41.131	126° 59.178			-			☐	
			:				°	°			-			☐	
22		12	02:45	BO	NET		49° 41.131	126° 59.178	35	25	-			☐	Bongo VNH
			:				°	°			-			☐	
23		12	09:27	BE	CTD		49° 30.578	126° 41.653	48	40	-		RA	☐	Set 37, Grid 64 end of night G.
			09:29	BO			49° 30.568	126° 41.640			-			☐	
			09:31	EN			49° 30.559	126° 41.628			-			☐	
			:				°	°			-			☐	
24		12	09:50	BO	NET		49° 30.559	126° 41.628	48	35	-			☐	Bongo VNH
			:				°	°			-			☐	
			:				°	°			-			☐	

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Version: 14 February 2013

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 5 of 7

Month			August			Year			2013			Vessel			RICKER			Cruise ID			2013-15		
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															
25		13	2:35	BE	CTD		49° 8.096	126° 41.975	136	130	-		KA	☐ ☐	Set 38, from 13nd 87 start of night 7								
			2:39	BO			49° 8.065	126° 41.965			-			☐ ☐									
			2:41	EN			49° 8.040	126° 41.959			-			☐ ☐									
			:				°	°			-			☐ ☐									
26		13	2:55	BO	BO NET		49° 8.040	126° 41.959	136	120	-		✓	☐ ☐	✓ bongo VNH								
			:				°	°			-			☐ ☐									
27		13	11:17	BE	CTD		49° 13.505	126° 16.832	39	30	-			☐ ☐	Set 44, end 82 last tow of night 7								
			11:18	BO			49° 13.506	126° 16.848			-			☐ ☐									
			11:19	EN			49° 13.507	126° 16.855			-			☐ ☐									
			:				°	°			-			☐ ☐									
28		13	11:30	BO	BO NET		49° 13.507	126° 16.855	36	25	-			☐ ☐	bongo VNH								
			:				°	°			-			☐ ☐									
29		14	2:35	BE	CTD		48° 47.599	125° 43.598	69	60	-			☐ ☐	Set 45, Trans 13nd 87 start of night 8								
			2:36	BO			48° 47.575	125° 43.604			-			☐ ☐									
			2:38	EN			48° 47.567	125° 43.613			-			☐ ☐									
			:				°	°			-			☐ ☐									
30		14	2:50	BO	BO NET		48° 47.567	125° 43.613	67	55	-			☐ ☐	bongo VNH								
			:				°	°			-			☐ ☐									
			:				°	°			-			☐ ☐									

Event Type:

BOT = Bottle cast (no CTD)
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Bottle Firing Method:

US = Up / Stop (default)

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CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time

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Version: 14 February 2013

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 6 of 7

Month			Year			Vessel			Cruise ID					Page		of	
August			2013			RICKER			2013-15					6		1	
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		
31		14	11:06	BE	CTD		48°42.748	126°8.951	136	125	-		KAdom	☐ ☐			
			11:08	BO			48°42.733	126°9.007			-			☐ ☐			
			11:11	EN			48°42.744	126°9.038			-			☐ ☐			
			:				°	°			-			☐ ☐			
32		14	11:30	BO	BONGO NET		48°42.744	126°9.038	136	125	-			☐ ☐	bongo VNH		
			:				°	°			-			☐ ☐			
33		15	2:42	BE	CTD		48°20.065	125°51.541	213	200	-			☐ ☒	set 52 Trawl		
			2:46	BO			48°20.034	125°51.457			-			☐ ☐	137 stop		
			2:50	EN			48°20.024	125°51.394			-			☐ ☐			
			:				°	°			-			☐ ☐			
34		15	3:05	BO	BONGO NET		48°20.024	125°51.394	188	175	-			☐ ☐	bongo VNH		
			:				°	°			-			☐ ☐			
35		15	11:47	BE	CTD		48°31.410	125°26.832	88	75	-			☐ ☐	row 57, grid 147		
			11:49	BO			48°31.417	125°26.830			-			☐ ☐	last towg night 9		
			11:51	EN			48°31.422	125°26.833			-			☐ ☐			
			:				°	°			-			☐ ☐			
36		15	12:00	BO	BONET		48°31.422	125°26.833	87	75	-			☐ ☐	bongo VNH		
			:				°	°			-			☐ ☐			
			:				°	°			-			☐ ☐			
Event Type: LOOP = Sea Water Loop Bottle Firing Method: Time Code:																	

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Bottle Firing Method:

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UN = Up / No stop
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Notes:

Time Code:

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CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

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Version: 14 February 2013

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 7 of 7

Month <u>August</u>				Year <u>2013</u>		Vessel <u>RICKER</u>				Cruise ID <u>2013-15</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
37		16	2:33	BE	CTD		48°46.951	125°26.944	103	90	-		KADOM	☒	Tow 58
			2:35	BO			48°46.967	125°26.953			-			☐	Grid 119 (first tow of night)
			2:37	EN			48°46.975	125°26.958			-			☐	
			:				°	°			-			☐	
38		16	2:47	BO	BONET		48°46.975	125°26.958	101	90	-			☐	Bong VNH (120)
			:				°	°			-			☐	U
39		16	8:35	BE	CTD		48°36.467	125°0.995	62	50	-			☒	LAST TOW OF SURVEY = 61°
			8:36	BO			48°36.473	125°0.013			-			☐	Grid 140 end of night 10
			8:38	EN			48°36.481	125°0.042	61	50	-			☐	
			:				°	°			-			☐	
40		16	8:48	BO	BONET		48°36.481	125°0.042	61	50	-			☐	Bong VNH
			:				°	°			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	

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