

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2010-17

DATE:

From:

JUNE 16, 2010

to:

JULY 7, 2010

VESSEL:

CFV VIKING STORM

PROJECT(S):

HIGH SEAS SALMON

Book 1 of 2

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

WaterProperties.ca

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <i>JUNE</i>				Year <i>2010-17</i>				Ship <i>CFV. VIKING STORM</i>				Cruise ID <i>2010-17</i>			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
16	GEO4	21:06	BE	Bongo		—	49 17.12	123 46.24	403	50.				✓	<i>Dr. Bruland</i>
		21:11	EN			—	49 17.07	123 46.18							
16	GEO4	21:21	BE	Bongo		—	49 17.05	123 46.07	402	230.					<i>PLANKTON STATION</i> <i>No core RECORDED</i>
		21:44	EN			—	49 17.03	123 45.94							
16	GS01	22:21	BE	CTD		1	49 12.32	123 41.81	350	230.		1			<i>SAR + NUTS + CHL</i> <i>On</i>
		22:48	EN				49 12.385	123 41.84							
16	GS01	22:52	BE	Bongo		2	49 12.39	123 41.86	348.	150.					
		23:05	EN				49 12.41	123 41.92	353						
17	GS02	00:09	BE	Bongo		3	49 12 62	123 31.56.	344	150.					
		00:23	EN				49 12 59	123 31.56							
17	GS02	00:28	BE	CTD		4	49 12.6	123 31.56 -	344	230.		1			<i>SAR + NUTS + CHL</i> <i>On</i>
		00:50	EN				49 12.64	123 31.49.							
17	GS03	01:39	BE	CTD		5	49 13.00	123 20.42.	185	175.		1			<i>SAR + NUTS + CHL</i> <i>On</i>
		01:54	EN				49 12.97	123 20.289.	185						
		2:07	BE	Bongo		6	49 12.75	123 20.273	185	150.					
		2:15	EN				49 12.785	123 20.21	184						

- NET RECOMMENDATION 2 BRIDAL NET, SPECTRA (MIDN) BRIDGES, SQUAM. NETS, SEATTLE
- LESS RESISTANCE, SHALLOW DEEPS REQUIRED, FUEL SAVINGS
- SPECTRA = 1/2 MILE. SET BACK 5m, 12m SET BACKS
- SHORTER CODED

Note: For this cruise, bongo stations from regional sampling areas (ie, non-transect) were shared between taxonomic analysis & a Uvic grad student project (Dan Bevan). Stations where there is no preserved sample for taxonomic analysis have been noted.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <i>JUNE</i>				Year <i>2010</i>			Ship <i>CFV VIKING GORM</i>				Cruise ID <i>2010-17</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<i>17</i>	<i>JF01</i>	<i>13:27</i>	<i>BE</i>	<i>CTD</i>		<i>7</i>	<i>48 17.2</i>	<i>123 39 3</i>	<i>173</i>	<i>160</i>		<i>1</i>		<i>✓</i>	<i>SAL + NUTS + CHLORO</i>
		<i>13:37</i>	<i>BE</i>				<i>48 17 21</i>	<i>123 39 25</i>							<i>@ 10m</i>
		<i>13:40</i>	<i>BE</i>	<i>Bongo</i>		<i>8</i>	<i>48 17 18.5</i>	<i>123 39 22</i>	<i>174</i>	<i>150</i>					
		<i>13:49</i>	<i>BE</i>				<i>48 17 14</i>	<i>123 39 17</i>							
		<i>13:58</i>	<i>BE</i>	<i>TRAWL</i>		<i>9</i>	<i>48 17 25</i>	<i>123 39 45</i>	<i>175</i>						<i>SURFACE TOW</i>
		<i>14:28</i>	<i>BE</i>				<i>48 17 80</i>	<i>123 42 19</i>							
<i>17</i>	<i>JF02</i>	<i>15:20</i>	<i>BE</i>	<i>Bongo</i>		<i>10</i>	<i>48 20 23</i>	<i>123 51 30</i>	<i>134</i>	<i>125</i>					<i>No preserved sample - prepped for Dan Bevan's project</i>
		<i>15:27</i>	<i>BE</i>				<i>48 20 34</i>	<i>123 51 32</i>							
		<i>15:31</i>	<i>BE</i>	<i>CTD</i>		<i>11</i>	<i>48 20 40</i>	<i>123 51 47</i>	<i>129</i>	<i>120</i>		<i>1</i>			<i>SAL + NUTS + CHLORO</i>
		<i>15:40</i>	<i>BE</i>				<i>48 20 49</i>	<i>123 51 45</i>							<i>@ 10m</i>
		<i>15:46</i>	<i>BE</i>	<i>TRAWL</i>		<i>12</i>	<i>48 20 61</i>	<i>123 52 17</i>	<i>125</i>						<i>ESB TOW, PREPARED WATER SPREAD 5-2, 500L SPREAD -</i>
		<i>16:16</i>	<i>BE</i>				<i>48 21 00</i>	<i>123 55 96</i>	<i>130</i>						<i>SURFACE TOW</i>
<i>17</i>	<i>JF03</i>	<i>17:04</i>	<i>BE</i>	<i>CTD</i>		<i>13</i>	<i>48 23 256</i>	<i>124 04 66</i>	<i>111</i>	<i>100</i>		<i>1</i>			<i>SAL + NUTS + CHL</i>
		<i>17:08</i>	<i>BE</i>				<i>48 23 25</i>	<i>124 04 69</i>	<i>111</i>						<i>@ 10m</i>
		<i>17:13</i>	<i>BE</i>	<i>Bongo</i>		<i>14</i>	<i>48 23 24</i>	<i>124 04 71</i>	<i>111</i>	<i>100</i>					
		<i>17:20</i>	<i>BE</i>				<i>48 23 24</i>	<i>124 04 74</i>							
		<i>17:26</i>	<i>BE</i>	<i>TRAWL</i>		<i>15</i>	<i>48 23 39</i>	<i>124 05 41</i>	<i>111</i>						<i>SURFACE TOW</i>
		<i>17:56</i>	<i>BE</i>				<i>48 24 31</i>	<i>124 09 19</i>	<i>112</i>						

This page is for any notes or observations

Loc: - June 26 Felt, Gregory H.O., Low SWELL, RIFTED GMS, 2235 ZONE, NW 15-25 KNOTS

Shes - River Japan

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>June</u>				Year <u>2010</u>			Ship <u>CGV Viking Storm</u>				Cruise ID <u>2010-17</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
17	JF04	1816	BE	Bongo		16	48 25.8	124 12.0	84	75					No preserved sample - prepped for Dan Bevan's project
		18:21	KN				48 25.72	124 12.14	87						
		18:25	BE	CTD		17	48 25.76	124 12.15	87	75		1			SAL + NUTS + CHL
		18:30	KN				48 25.74	124 12.21	90						@ 10m
		18:38	BE	TRAWL		18	48 25.88	124 13.08	87						SURFACE TOW
		19:08	EN				48 26.51	124 17.68	111						
17	JF05	1928	BE	CTD		19	48 28.3	124 20.36	65	50		1			SAL + NUTS + CHL
		1932	KN				48 28.3	124 20.38							@ 10m
		19:34	BE	Bongo		20	48 28.35	124 20.397	65	85					
		19:37	EN				48 28.36	124 20.44	70						
		19:46	BE	TRAWL		21	48 28.62	124 21.19	79						SURFACE TOW
		20:16	EN				48 29.796	124 24.87	99						
17	JF06	2047	BE	Bongo		22	48 32.1	124 30.1	36	25					No preserved sample - prepped for Dan Bevan's project
		20:50	KN				48 32.16	124 30.11	31						
		20:55	BE	CTD		23	48 32.15	124 30.18	34	20		1			* CTD not turned →
		20:58	KN				48 32.14	124 30.22							SAL + NUTS + CHL @ 10m
		21:04	BE	TRAWL		24	48 32.12	124 30.94	46						SURFACE TOW
		21:39	KN				48 32.52	124 34.89	70						

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

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

Bottle Firing Method:

US = Up / Stop
 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
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

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JF04 - MANDAKA R.

JF00 - San Juan

→ off between this station & JF07. Both casts in one file.

DAILY SCIENCE LOG

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
17	JF04	2219	BE	CTD		25	48 33.8	124 41.9	75	65		1			* See comment from SAL + CHL + NUTS
		2223	RO				48 33.9	124 41.9							
		2227	BE	Bongo		26	48 34.0	124 41.86	70	60					@ 10m
		2231	RO				48 34.0	124 41.85							
		2239	SE	Tow		27	48 34.12	124 42.51	66						SURFACE TOW
		2309	RE				48 34.65	124 45.55							
17	VI01	2353	BE	Bongo		28	48 36.1	124 53.3	62	50					No preserved sample - prepped for Dan Bevan's project
		2357	RE				36.2	53.3							
18		0002	BE	CTD		29	48 36.2	124 53.4	61	50		1			SAL + CHL + NUTS
		0005	RE				36.2	53.4							@ 10m
18		0011	BE	Tow		30	48 36.3	124 53.9	59						SURFACE TOW
		0041	RE				48 36.91	124 56.64	66						
18	IVJ01	13:05	BE	CTD		31	48 57.87	125 06.9	96	85		1		✓	IMPERIA BONGA CA.
		13:08	RE				48 57.87	125 06.9	96						SAL + CHL + NUTS
		13:11	BE	Bongo		32	48 57.88	125 6.92	96	85					@ 10m
		13:17	RE				48 57.89	125 6.91							
		13:28	BE	Tow		33	48 57.78	125 7.13	96						SURFACE TOW
		13:58	RE				48 55.75	125 8.96	92						

This page is for any notes or observations

JF06.

DAILY SCIENCE LOG

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Month <u>JUNE</u>				Year <u>2010</u>			Ship <u>CFV Viking Storm</u>			Cruise ID <u>2010-17</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
18	VI02	14:28	BE	Bongo		34	4854.8	125 12.2	97	85					IMPAIRED EPOCH CAL.
		14:34	BE				4854.8	125 12.3							No preserved sample - prepped for Dan Evans's project
		14:39	BE	CTD		35	4854.8	125 12.35	98	85		1			SAL+CHL+NUTS
		14:44	BE				4854.8	125 12.4							O/DW
		14:51	BE	Tow		36	48 54 46	125 12.82	98						SURFACE Tow
		15:21	BE				48 52 42	125 14.84	91						
18	VI02	15:50	BE	CTD		37	4850.3	125 16.1	96	85		1			SAL+CHL+NUTS
		15:55	BE				48 50.32	125 16.18							O/DW
		15:58	BE	Bongo		38	48 50 32	125 16.185	96						
		16:04	BE				48 50 32	125 16.24							
		16:09	BE	Tow		39	48 49 92	125 16.34	94						SURFACE Tow
		16:34	BE				48 47 66	125 17.126	88						
18	VI03	17:10		Bongo		40	48 47.18	125 22.10	90	80					No preserved sample - prepped for Dan Evans's project
		17:15					47.2	22.1							
		17:19		CTD		41	48 47.2	125 22.06	90	80		1			SAL+CHL+NUTS
		17:24					47.2	22.03							O/DW
		17:32		Tow		42	48 46.8	125 22.56	87						SURFACE Tow
		18:02					48 45.40	125 25.64	104						

Cast Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

USW = Sea Water Loop

MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter
=

Bottle Firing Method:

US = Up / Stop
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
DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <i>June</i>				Year <i>2010</i>			Ship <i>CGV Viking Storm</i>				Cruise ID <i>2010-17</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<i>17</i>	<i>VI04</i>	<i>18:56</i>	<i>BE</i>	<i>CTD</i>		<i>43</i>	<i>48 41.06</i>	<i>125 34.32</i>	<i>170</i>	<i>160</i>		<i>1</i>			
		<i>19:06</i>	<i>BE</i>				<i>48 40.98</i>	<i>125 33.30</i>							<i>SAL + NODS + CHL</i>
		<i>19:08</i>	<i>BE</i>	<i>Bongo</i>		<i>44</i>	<i>48 40.98</i>	<i>125 34.29</i>	<i>178</i>	<i>150</i>					<i>@ 10m</i>
		<i>19:18</i>	<i>BE</i>				<i>48 40.99</i>	<i>125 33.34</i>							
		<i>19:26</i>	<i>BE</i>	<i>Trawl</i>		<i>45</i>	<i>48 40.27</i>	<i>125 35.17</i>	<i>170</i>						<i>30 m Tow</i> <i>150F WARP-RET</i>
		<i>19:48</i>	<i>BE</i>				<i>48 39.21</i>	<i>125 38.18</i>							
<i>18</i>	<i>VI05</i>	<i>20:43</i>	<i>BE</i>	<i>Bongo</i>		<i>46</i>	<i>48 35.37</i>	<i>125 43 55</i>	<i>65</i>	<i>55</i>					<i>NOT NORMALLY 68F</i>
		<i>20:45</i>	<i>BE</i>				<i>48 35.4</i>	<i>125 43 55</i>							<i>⊗ No preserved sample - prepped for Dan Evans project</i>
		<i>20:56</i>	<i>BE</i>	<i>CTD</i>		<i>47</i>	<i>48 35.43</i>	<i>125 43 55</i>	<i>65</i>	<i>55</i>		<i>1</i>			
		<i>20:55</i>	<i>BE</i>				<i>48 35.45</i>	<i>125 43 54</i>	<i>65</i>						<i>SAL, NODS, CHL @ 10m</i>
		<i>21:01</i>	<i>BE</i>	<i>Trawl</i>		<i>48</i>	<i>48 35 18</i>	<i>125 43 98</i>	<i>67</i>						<i>SURFACE TOW</i>
		<i>21:31</i>	<i>BE</i>				<i>48 33 55</i>	<i>125 45 78</i>							
<i>18</i>	<i>VI06</i>	<i>22:22</i>		<i>CTD</i>		<i>49</i>	<i>48 28.9</i>	<i>125 51.27</i>	<i>114</i>	<i>105</i>		<i>1</i>			<i>SAL TAPOTS + CHLORD</i>
		<i>22:29</i>					<i>28.9</i>	<i>51.2</i>							<i>@ 10m</i>
		<i>22:32</i>		<i>Bongo</i>		<i>50</i>	<i>48 28.9</i>	<i>125 51.2</i>	<i>117</i>	<i>105</i>					
		<i>22:38</i>					<i>28.9</i>	<i>51.1</i>							
		<i>22:48</i>		<i>Tow</i>		<i>51</i>	<i>48 28.5</i>	<i>125 51.8</i>	<i>125</i>						<i>15 metres TOW</i>
		<i>23:16</i>					<i>48 26.56</i>	<i>125 53.78</i>	<i>150</i>						

Cast Type:

BOT = Bottle cast, no CTD
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SET = Fish Set

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

Bottle Firing Method:

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

Time Code:

BE = Beginning Time of Cast
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EN = End Time of Cast
DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Notes:

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WEATHER SEA CONDITIONS - B.C. HT, $\frac{1}{4}$ SWELL, RPTD SEAS WINDS H.W. 15 KNOTS.
V102 $\rightarrow$ V104 ~~PERIODIC~~ TRANSIENT.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>June</u>				Year <u>2010</u>			Ship <u>CGV Viking Storm</u>			Cruise ID <u>2010-17</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
19	V107	00:03	BE	Bongo		52	48 22.43	125 58.76	376	150					No preserved sample - prepped for Dan Bevan's project
		00:13	BE				48 22.8	125 58.61							
		00:18	BE	CTD		53	48 22.50	125 58.49	521	230		1			SEA + ROSETTE + CTD
		00:33	BE				48 22.44	125 58.33							@ 10m
		00:40	BE	Tow		54	48 22.11	125 58.73	558						SURFACE TOW
		01:10	BE				48 20.12	126 0.68	2900						
19	V108	13:08	BE	CTD		55	49 06.163	126 00.178	45	35		1		✓	OFF TOWING
		13:11	BE				49 06.187	126 00.184	46						SEA + ROSETTE + CTD
		13:13	BE	Bongo		56	49 06.211	126 00.187	45	35					@ 10m
		13:17	BE				49 06.248	126 00.209							
		13:23	BE	Tow		57	49 05.92	126 00.861	47						SURFACE TOW
		13:53	BE				49 4.51	126 03.357	55						
19	V109	14:28	BE	Bongo		58	49 03.2	126 06.0	60	50					No preserved sample - prepped for Dan Bevan's project
		14:31	BE				49 03.2	126 06.1							
		14:36	BE	CTD		59	49 03.3	126 06.1	60	50		1			SEA + ROSETTE + CTD
		14:39	BE				49 03.3	126 06.1							@ 10m
		14:47	BE	Tow		60	49 03.103	126 06.639	60						SURFACE TOW
		15:17	BE				49 01.514	126 08.961							

Cast Type:

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 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop

MOR = Mooring

NET = Plankton Net Haul

DRF = Drifter

=

Bottle Firing Method:

US = Up / Stop

UN = Up / No stop

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Notes:

Time Code:

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BO = Bottom Time of Cast

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DE = Deployment Time

MR = Messenger Release Time

RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

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V108- off Torino, SKIN BRIGHT, $\frac{1}{2}$ N SWALL, RIPPED SKIN

DAILY SCIENCE LOG

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Month <u>June</u>				Year <u>2010</u>			Ship <u>CGV Virginia Slocum</u>			Cruise ID <u>2010-17</u>					Page <u>7</u> of <u>49</u>
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
19	VE10	15:49	BE	CTD		61	48 59.4	126 12.2	93	80		1			off to wind
		15:52	BE				48 59.42	126 12.255	93						SAL + ROS + CHL
		15:57	BE	Bottle		62	48 59.42	126 12.269	93	80					@ 10m
		16:01	BE				48 59.41	126 12.306							
		16:09	BE	Trawl		63	48 59.13	126 12.903	99						SURFACE TOW
		16:39	BE				48 57.65	126 15.57							
19	VE11	17:06	BE	Bottle		64	48 55.6	126 18.7	135	125					No preserved sample -- prepped for Dan Bertram's project
		17:13	BE				48 55.51	126 18.48							
		17:18	BE	CTD		65	48 55.45	126 18.43	136	125		1			SAL + NITS + CHL
		17:26	BE				48 55.38	126 18.43							@ 10m
		17:36	BE	Trawl		66	48 54.85	126 19.175	142						30 m Tow
		18:06	BE				48 53.17	126 21.72	158						
19	VE12	18:34	BE	CTD		67	48 51.55	126 24.214	172	165		1			SAL + CHL + NITS
		18:44	BE				48 51.576	126 24.202							@ 10m
		18:48	BE	Bottle		68	48 51.59	126 24.263	172	150					
		18:56	BE				48 51.62	126 24.200							
		19:04	BE	Trawl		69	48 51.34	126 24.72	174						
		19:34	BE				48 49.603	126 26.901	193						SURFACE TOW

Cast Type: USW = Sea Water Loop Bottle Firing Method: Time Code:

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

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

Bottle Firing Method:

US = Up / Stop
 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
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

VEH - 2m SWATH, OCCASIONAL WHITE LIPS, BRIGHT SKIES

30 METAL TOWS - 14m VERTICAL X 28m HORIZONTAL. OPENING.

250-713-2193

STRAWMAN TUCKER.

~~SATURDAY~~ MONDAY.

SAT PHOENIX

PERSS "3"

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>June</u>				Year <u>2010</u>			Ship <u>CGV Viking Storm</u>			Cruise ID <u>2010-17</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
	<u>UI12</u>	<u>20:55</u>	<u>BE</u>	<u>Bowco</u>		<u>488</u>	<u>48 58.80</u>	<u>126 26.73</u>	<u>152</u>	<u>140</u>					<u>X? cancelled</u>
		<u>21:04</u>	<u>BE</u>				<u>48 58.78</u>	<u>126 26.785</u>							
<u>19</u>	<u>UI13</u>	<u>21:06</u>	<u>BE</u>	<u>Bowco</u>		<u>70</u>	<u>48 58.77</u>	<u>126 26.26</u>	<u>152</u>	<u>140</u>					<u>REPEATED Bowco.</u>
		<u>21:15</u>	<u>EN</u>				<u>48 58.76</u>	<u>126 26.24</u>							<u>No preserved sample -</u>
		<u>21:19</u>	<u>BE</u>	<u>CTD</u>		<u>71</u>	<u>48 58.73</u>	<u>126 26.19</u>	<u>152</u>	<u>140</u>		<u>1</u>			<u>Dan Bevan's project</u>
		<u>21:29</u>	<u>BE</u>				<u>48 58.71</u>	<u>126 26.11</u>							<u>SA + NUTS + CHLORO</u>
		<u>21:35</u>	<u>BE</u>	<u>TRAWL</u>		<u>72</u>	<u>48 59.15</u>	<u>126 26.97</u>	<u>150</u>						<u>@ 10m</u>
		<u>22:05</u>	<u>EN</u>				<u>49 01.414</u>	<u>126 25.208</u>	<u>140</u>						
<u>19</u>	<u>UI14</u>	<u>22:46</u>	<u>BE</u>	<u>CTD</u>		<u>73</u>	<u>49 05.43</u>	<u>126 23.127</u>	<u>113</u>	<u>105</u>		<u>1</u>			<u>SA + NUTS + CHLORO</u>
		<u>22:58</u>	<u>EN</u>				<u>49 05.382</u>	<u>126 23.000</u>							<u>@ 10m</u>
		<u>22:54</u>	<u>BE</u>	<u>Bowco</u>		<u>74</u>	<u>49 05.376</u>	<u>126 23.000</u>	<u>113</u>	<u>100</u>					
		<u>23:01</u>	<u>EN</u>				<u>49 05.331</u>	<u>126 22.964</u>							
		<u>23:08</u>	<u>BE</u>	<u>TRAWL</u>		<u>75</u>	<u>49 05.75</u>	<u>126 22.700</u>	<u>107</u>						
		<u>23:38</u>	<u>EN</u>				<u>49 07.91</u>	<u>126 21.55</u>							

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop

MOR = Mooring

NET = Plankton Net Haul

DRF = Drifter

=

Bottle Firing Method:

US = Up / Stop

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

DE = Deployment Time

MR = Messenger Release Time

RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

VI 13: Bongo chain hung up on hardware - did not sample properly on upcast. Reset and re-deployed under same cons#.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>June</u>				Year <u>2010</u>			Ship <u>CGV Viking Storm</u>			Cruise ID <u>2010-17</u>					Page <u>1</u> of <u>44</u>
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
20	EP01	13:13	BE	CTD		76	49 20.51	126 32.84	44	35-		1		✓	SAL + NOTES + CHLORO
		13:25	BE				49 20.54	126 32.85							@ 10m
		13:26	BE	Bongo		77	49 20.54	126 32.85	44	35.					Preserved samples kept on transects
		13:28	BE				49 20.57	126 32.86							
		13:37	BE	Trawl		78	49 20.37	126 33.55							
		14:07	BE			55	49 18.987	126 36.448	86						SPRINGS Trawl
20	EP02	14:21	BE	Bongo		79	49 18.8	126 37.0	93	80					
		14:27	BE				49 18.8	126 37.1							
		14:31	BE	CTD		80	49 18.8	126 37.2	94	85		1			SAL + NOTES + CHLORO
		14:36	BE				49 18.8	126 37.2							@ 10m
		14:43	BE	Trawl		81	49 18.5	126 37.8	100						SPRINGS Trawl
		15:13	BE				49 16.89	126 40.48							
20	EP03	15:30	BE	CTD		82	49 16.6	126 41.3	115	105		1			SAL + NOTES + CHLORO
		15:36	BE				49 16.6	126 41.3							@ 10m
		15:38	BE	Bongo		83	49 16.6	126 41.4	115	105					
		15:45	BE				49 16.5	126 41.4							
		15:52	BE	Trawl		84	49 16.235	126 41.9	118						SPRINGS Trawl
		16:22	BE				49 14.71	126 44.307	116						

Cast Type:

USW = Sea Water Loop

Bottle Firing Method:

Time Code:

Cast Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

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

Bottle Firing Method:

US = Up / Stop
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
DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 06 March 2008

This page is for any notes or observations

E901 - 1m SWAL, RIPPED SEAS, OVERCAST

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>June</u>		Year <u>2010</u>		Ship <u>CGV Velero</u>		Cruise ID <u>2010-17</u>									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
20	EP04	16:37					49 11.4	126 44.9	120	110					
		16:44					14.3	44.9							
20	EP04	16:49	BE	Bongo		85	49 14.2	126 44.9	122	110					⊗ →
		16:57	EM				49 14.1	126 44.9							
		17:02	BE	CTD		86	49 14.2	126 45.1	124	110		1			SP + ROS + CHLORO
		17:07	EM				49 14.0	126 45.1							⊗ 10m
		17:11	BE	TRawl		87	49 13.906	126 45.606	125						SURFACE TOW
		17:44	EM				49 12.912	126 48.982							
20	EP05	17:58	BE	CTD		88	49 12.5	126 49.3	141	130		1			SP + ROS + CHLORO
		18:05	EM				49 12.4	126 49.2							⊗ 10m
		18:09	BE	Bongo		89	49 12.4	126 49.2	141	130					
		18:18	EM				49 12.3	126 49.1							
		18:25	BE	Trawl		90	49 12.2	126 49.7	140						SURFACE TOW
		18:55	EM				49 11.56	126 52.99							

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

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

Bottle Firing Method:

US = Up / Stop
 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
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

EP04: Bongo net hung up on frame during upcast. Reset & redeployed under same cons#.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>June</u>		Year <u>2010</u>		Ship <u>R/V Victoria</u>		Cruise ID <u>2010-17</u>									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
20	6P06	1913	BZ	Bongo		91	49 10.6	126 54.4	186	150					
		1924	RM				49 10.5	126 54.4							
		1927	BZ	CTD		92	49 10.5	126 54.4	186	175		1			SAL + XENTS + CMORO.
		1938	RM				49 10.4	126 54.3							@ 10m
		1947	BZ	Tow.		93	49 9.91	126 54.97	200						SURFACE TOW
		2017	RM				49 8.43	126 57.63	360						
20	6P07	2039	BZ	CTD		94	49 08.1	126 59.0	463	230		1			SAL + XENTS + CMORO.
		2053	RM				49 08.0	126 58.7							@ 10m
		2057	BZ	Bongo		95	49 8.027	126 58.811	467						⊗
		21:07	RM				49 7.998	126 58.800	473						
		21:17	BZ	Tow.		96	49 7.74	126 59.894	554						15m Tow
		21:47	RM				49 6.41	124.2.213	875						
20	VI15	2317	BZ	Bongo		97	49 17.726	126 59.07	153	145					
		2327	RM				49 17.73	126 58.806	153						
		2331	BZ	CTD		98	49 17.72	126 58.71	153	145		1			SAL + XENTS + CMORO.
		2339	RM				49 17.704	126 58.47	153						@ 10m
		2346	BZ	Tow.		99	49 18.09	126 57.96	150						15m Tow
21		00:10	RM				49 20.05	126 55.78	150						

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

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

Bottle Firing Method:

US = Up / Stop
 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
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

⊗ EP07: weight hung up on frame - untangled & rinsed well.

VI15 - ON SHARP OAK *PLATKA* Sp. $\frac{1}{2}$ in. long, RIPPLED LEAF, OVERCAST.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <i>June</i>				Year <i>2010</i>			Ship <i>CGV Viking Storm</i>			Cruise ID <i>2010-17</i>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
21	VE16	00:43	BE	CTD		100	49 22.48	126 53.58	133	123		1			SAL+MUTS+CHORO
		00:51	EN				49 22.53	126 53.52							@ 10m
		00:52	BE	Bongo		101	49 22.54	126 53.58	132	122					
		01:01	EN				49 22.57	126 53.44							
		01:07	BE	Transl.		102	49 23.11	126 53 15.	128						15m Tow
		01:37	EN				49 25.36	126 52.044	109						
21	VE17	14:12	BE	CTD		103	49 38.098	126 56.854	46	35.		1		✓	SAL+MUTS+CHORO
		14:14	EN				49 38.102	126 56.857							@ 10m
		14:16	BE	Bongo		104	49 38.109	126 56.856	46	35.					
		14:20	EN				49 38.123	126 56.858	45						
		14:26	BE	Transl.		105	49 37.944	126 57.432	49						SURFACE Tow
		14:56	EN				49 36.81	127 00.609	91						
21	VE18	15:15	BE	Bong.		106	49 35.8	127 02.7	108	900					No preserved sample - prepped for Dan Evans project
		15:22	EN				49 35.8	127 02.7							
		15:26	BE	CTD		107	49 35.9	127 02.7	108	100		1			SAL+MUTS+CHORO
		15:32	EN				49 35.95	127 02.817							@ 10m
		15:38	BE	Tow		108	49 35.71	127 03.33	112						SURFACE Tow
		16:08	EN				49 34.19	127 05.556	122						

This page is for any notes or observations

VIA - 14 M SWELL, CALM; RIPPED SEAS, SKIES BRIGHT
NORTH, ON NOCTA SD.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>June</u>				Year <u>2010</u>			Ship <u>CFV Viking Storm</u>				Cruise ID <u>2010-17</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
21	VI19	16:37	BE	CTD		109	49 32.3	127 08.2	138	130		1			(X) SAL, NUTS, + CHLORO
		16:45	BE				49 32.3	127 08.2							@ 10m
		16:47	BE	Bongo		110	49 32.3	127 08.2	138	130					
		16:56	BE				49 32.3	127 08.2							
		17:04	BE	Trawl		111	49 32.05	127 08.8	138						SURFACE TOW
21	VI20	17:34	BE				49 30.45	127 11.25	153						
		17:55	BE	Bongo		112	49 29.1	127 14.3	265	150					No preserved sample - prepped for Dan Evans's project
		18:04	BE				49 29.0	127 14.3							
		18:09	BE	CTD		113	49 28.9	127 14.2	280	230		1			SAL, NUTS, + CHLORO
		18:25	BE				49 28.79	127 14.285	266						@ 10m
22	VI21	18:31	BE	Trawl		114	49 28.6	127 14.82	420						SURFACE TOW
		19:01	BE				49 27.05	127 17.291	700						
		13:14	BE	CTD		115	49 55.9	127 19.258	62	50		1		✓	SAL, NUTS, CHL 6 10m
		13:17	BE				49 55.93	127 19.261							
		13:19	BE	Bongo		116	49 55.95	127 19.275	62	56					
22	VI21	13:23	BE				49 55.98	127 19.277							
		13:31	BE	Trawl		117	49 55.609	127 19.798	60						SURFACE TOW
		14:01	BE				49 54.179	127 22.225							

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

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

Bottle Firing Method:

US = Up / Stop
 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
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

⊗ Taigon tubing to salinometer not well attached - bracket tightened & sensor realigned.

NI21 - FINE CAROL, UNIKY SMOOTH SURFACE, GENTLE ROLL, CLOUDY SKIES
OFF KYUQUOT.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>June</u>		Year <u>2010</u>		Ship <u>CFV Viking Sagan</u>		Cruise ID <u>2010-17</u>									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
22	VI22	14:25	BE	Bong		118	49 52.6	127 25.2	66	55					No preserved sample prepped for Dan Bevan's project
		14:29	EN				49 52.6	127 25.2							
		14:33	BE	CTD		119	49 52.7	127 25.3	66	55		1			SALT + MOUTS + CHOR -
		14:36	FO				49 52.7	127 25.3							BE ON
		14:42	BE	Tow		120	49 52.4	127 25.8	68						SURFACE Tow
		15:12	FO				49 50.8	127 28.0							
22	VI23	15:45	BE	CTD		121	49 48.3	127 31.6	85	75		1			SALT + MOUTS + CHOR @ 10m
		15:50	EN				49 48.3	127 31.6							
		15:52	BE	Bong		122	49 48.3	127 31.6	85	75					
		15:59	EN				49 48.4	127 31.5							
		16:06	BE	Tow		123	49 48.1	127 31.9	87						SURFACE Tow
		16:34	EN				49 46.40	127 34.335	153						
22	VI24	17:06	BE	Bong		124	49 44.6	127 37.3	550	150					No preserved sample - prepped for Dan Bevan's project
		17:16	EN				49 44.4	127 37.2							
		17:20	BE	CTD		125	49 44.4	127 37.1	560	230		1			SALT + MOUTS + CHOR @ 10m
		17:35	EN				49 44.2	127 37.0							
		17:42	BE	Tow		126	49 44.0	127 37.5	650						SURFACE Tow
		18:12	EN				49 43.1	127 40.3	700						

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop

MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

— =

Bottle Firing Method:

US = Up / Stop
 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
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

This page is for any notes or observations

VI22 - 000 KYUQVOT

VI23 - 000 KYUQVOT

VI24 - 000 KYUQVOT

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month JUNE				Year 2010			Ship CFV Viking Storm				Cruise ID 2010-17				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
22	VI25	21:10	BE	CTD		127	50 5.72	127 56.707	54	45		/			SP + ROS + CHLOR ⁸ /10m
		21:13	KN				50 5.70	127 56.71							
		21:16	BE	Bongo		128	50 5.71	127 56.686	45	25					
		21:19	KN				50 5.69	127 56.688	49						
		21:27	BE	Trawl		129	50 5.41	127 57.165	93						SURFACE Trawl
		21:57	KN				50 04.21	128 00.202	199						
22	VI26	22:24	BE	Bongo		130	50 02.9	128 03.1	1200	150					No preserved sample - drugged for Dan Bevan's project
		22:33	KN				50 02.8	128 03.2							
		22:38	BE	CTD		131	50 02.8	128 03.2	1200	230		/			SAL + NUTS + CHLOR ⁸ /10m
		22:52	KN				50 02.9	128 03.2							
		22:59	BE	Trawl		132	50 02.6	128 03.8	1150						SURFACE Trawl
		23:29	KN				50 01.2	128 06.9							
22	VI27	23:56	BE	CTD		133	50 00.0	128 10.0	780	230		/			SAL + NUTS + CHLOR ⁸ /10m
23		00:10	KN				50 00.2	128 10.0							
		00:13	BE	Bongo		134	50 00.3	128 10.1	720	150					
		00:22	KN				50 00.4	128 10.1							
		00:30	BE	Trawl		135	50 00.1	128 10.7	850						SURFACE Trawl
		01:00	KN				49 59.153	128 13.83							

Transmissometer to be cleaned before each cast, do not use Ammonia products

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

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

Bottle Firing Method:

US = Up / Stop
 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
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

UI25 — OFF SOLINDAR, (BROOKS FANISH)
IN SWELL, RIPPED SEAS, OCCASIONAL WHITE CAPS

UI26 — OFF SOLINDAR.

UI27 — OFF SOLINDAR.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <u>JUNE</u>				Year <u>2010</u>			Ship <u>CGV Viking Seaman</u>			Cruise ID <u>2010-17</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
23	JUN03	13:04	BE	CTD		136	50 24.441	127 29.514	131	115		/		✓	SH, 1107 CH200 @ 10m
		13:11	BE				50 24.485	127 29.53							
		13:15	BE	Bongo		137	50 24.496	127 29.537	130	120					
		13:21	BE				50 24.523	127 29.554	130						
		13:26	BE	THALOS		138	50 24.93	127 29.884							SURFACE TOW
23	JUN04	13:58	BE				50 24.001	127 31.793	185						
		14:17	BE	Bongo		139	50 27.4	127 31.7	190	150					NO preserved sample - prepped for Dan Bewand project
		14:26	BE				50 27.4	127 31.8							
		14:31	BE	CTD		140	50 27.4	127 31.8	190	180		/			SH, 1107, CH200 @ 10m
		14:42	BE				50 27.4	127 31.8							
23	JUN05	14:48	BE	Tow		141	50 27.7	127 32.3	187						SURFACE TOW
		15:18	BE				50 29.63	127 34.410							
		15:44	BE	CTD		142	50 31.7	127 36.9	59	50		/			SH, 1107, CH200 @ 10m
		15:47	BE				50 31.7	127 36.9							
		15:52	BE	Bongo		143	50 31.7	127 36.9	60	50					
23	JUN05	15:56	BE				50 31.7	127 36.8							
		16:03	BE	Tow		144	50 31.7	127 36.4	60						SURFACE TOW
		16:33	BE				50 31.5	127 40.98	121						

This page is for any notes or observations

70103 - QATSIHO, MURROPOS TRAIL, EAST CAMP.

70104 - QATSIHO, MURROPOS TRAIL.

70105 - QATSIHO CH - 14. TRAIL 13.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <i>JUNE</i>				Year <i>2010</i>			Ship <i>CGV Victoria Strait</i>			Cruise ID <i>2010-17</i>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
23	JUL06	17:17	BE	Buoy		145	50 29.9	127 44.4	116	105					No preserved sample - prepped for Nan Bowen's project
		17:24	EW				50 29.9	127 44.4							
		17:28	BE	CTD		146	50 29.9	127 44.4	117	105		1			SAL DTS, CHLORO @ 10m
		17:34	EW				50 29.9	127 44.3							
		17:41	BE	Trawl		147	50 29.8	127 44.9	114						SURFACE TOW
		18:11	EW				50 28.67	127 48.38	97						
23	JUL07	18:46	BE	CTD		148	50 29.3	127 51.0	66	50		1			SAL DTS, CHLORO @ 10m
		18:49	EW				29.3	127 51.1							
		18:51	BE	Buoy		149	50 29.3	127 51.1	67	85					
		18:55	EW				29.3	127 51.1							
		19:01	BE	Tow		150	50 29.1	127 51.7	178						SURFACE TOW
		19:31	EW				50 28.43	127 55.01	191						
23	JUL28	20:12	BE	Buoy		151	50 24.9	128 00.0	165	160					No preserved sample - prepped for Nan Bowen's project
		20:21	EW				50 24.9	00.1							
		20:26	BE	CTD		152	50 25.0	128 00.1	176	160		1			SAL DTS, CHLORO @ 10m
		20:34	EW				50 24.984	128 00.229	182						
		20:42	BE	Tow		153	50 24.77	128 00.745	156						SURFACE TOW
		21:12	EW				50 23.73	128 02.98	120						

Cast Type:
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MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter
=

Bottle Firing Method:
US = Up / Stop
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

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

This page is for any notes or observations

20106. - QATSIWU,

IV107 - QATSIWU, KOSKIMO BAY

VI28 - OFF QATSIWU, IN SWAN, RIVIERO BRAS, OROCAST.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <i>June</i>				Year <i>2010</i>			Ship <i>CGV Vixen Station</i>				Cruise ID <i>2010-17</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
23	VI29	21:45	BE	CTD		154	50 21.6	128 05.9	86	75		1			SAL, NUTS, CHL @ 10m
		21:49	BE				50 21.6	128 06.1							
		21:52	BE	Ponyo		155	50 21.6	128 06.1	88	75					
		21:58	BE				50 21.6	128 06.1							
		22:07	BE	Tow		156	50 21.38	128 06.738	96						SURFACE TOW
		22:34	BE				50 19.91	128 09.38	148						
23	VI30	23:06	BE	Ponyo		157	50 18.0	128 12.1	177	180					
		23:16	BE				18.0	12.1							
		23:20	BE	CTD		158	50 18.0	128 12.2	178	165		1			SAL, NUTS, CHL @ 10m
		23:30	BE				18.0	12.0							
		—		Tow		—	Cancelled. SE		25						
24	T08	13:08	BE	CTD		159	50 42.5	129 28.5	2300	230		1		✓	SAL, NUTS, CHL @ 10m
		13:23	BE				50 42.58	129 28.403	2300						
		13:25	BE	Ponyo		160	50 42.61	129 28.398	2300	150					
		13:35	BE				50 42.61	129 28.321		150					
		13:47	BE	Tow		161	50 43.09	129 24.488	1700						SURFACE TOW
		14:16	BE				50 44.47	129 24.462							

This page is for any notes or observations

VF29 — 2m down, occasional white caps, overcast SE 25 FORECAST MW 10-25

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>June</u>				Year <u>2010</u>			Ship <u>CGV Viking Star</u>			Cruise ID <u>2010-17</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
24	T07	15:14	BS	Bongo		162	50 49.14	129 14.25	106	100					
		15:22	EW				50 49.32	129 14.155							
		15:25	BS	CTD		163	50 49.385	129 14.115	112			1			SN, MTS, CHL @ 10m
		15:31	EW				50 49.515	129 14.027	105						
		15:37	BS	Trawl		164	50 49.86	129 13.464	94						SURFACE TOW
		16:07	BS				50 51.61	129 09.984	72						
24	T06	16:55	BS	CTD		165	50 55.495	129 00.48	60	50		1			SN, MTS, CHL @ 10m
		16:58	EW				50 55.516	129 00.38	61						
		17:00	BS	Bongo		166	50 55.53	129 00.309	61	50					
		17:04	EW				50 55.56	129 00.187	60						
		17:12	BS	Trawl		167	50 55.895	128 59.47	59						SURFACE TOW
		17:42	EW				50 57.97	128 56.595	73						
24	T05	18:05	BS	Bongo		168	50 59.9	128 52.8	65	55					
		18:09	EW				50 59.8	128 52.8							
		18:13	BS	CTD		169	50 59.845	128 52.74	65	55		1			SN, MTS, CHL @ 10m
		18:16	EW				50 59.92	128 52.66							
		18:23	BS	Tow		170	51 00.18	128 52.04							SURFACE TOW
		18:53	EW				51 01.553	128 48.66	59						

Transmissometer to be cleaned before each cast, do not use Ammonia products

Cast Type:

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 SET = Fish Set

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 DRF = Drifter

Bottle Firing Method:

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

Notes:

Time Code:

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 BO = Bottom Time of Cast
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Produced by the Water Properties Group, IOS

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This page is for any notes or observations

Tot - $\frac{1}{2}$ m. SWELL, RIPPED SKIS, PARTLY CLOUDY HW 5-10.

Tot - PRIMITIVE 1.5 Kts HIRE

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>June</u>				Year <u>2010</u>			Ship <u>CGV Victoria Strait</u>			Cruise ID <u>2010-17</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
24	T04	19:32	BE	CTD		171	51 04.308	128 44.068	65	55		/			SAL, NITS, CHL @ 10m
		19:37	EN				51 4.25	128 44.07	65						
		19:38	BE	Bongo		172	51 04.25	128 44.075	65						
		19:42	EN				51 4.175	128 44.066	67						
		19:44	BE	Trawl		173	51 4.33	128 43.6	64						SURFACE TOW
24	T03	20:13	EN				51 5.356	128 41.772	67						
		20:56	BE	Bongo		174	51 8.45	128 36.82	141	130					
		21:04	EN				51 8.42	128 35.98	142						
		21:09	BE	CTD		175	51 8.405	128 35.91	142	130		/			SAL, NITS, CHL @ 10m
		21:16	EN				51 8.38	128 35.81							
24	T02	21:27	BE	Trawl		176	51 8.91	128 34.71	155						15m TOW *
		21:57	EN				51 10.33	128 32.15	185						
		22:40	BE	CTD		177	51 12.56	128 27.59	192	180		/			SAL, NITS, CHL @ 10m
		22:51	EN				51 12.55	128 27.55							
		22:53	BE	Bongo		178	51 12.54	128 27.55	191	150					
24	T02	23:03	EN				51 12.51	128 27.583	192						
		23:10	BE	Trawl		179	51 12.75	128 27.092							SURFACE TOW
		23:40	EN				51 14.007	128 24.409	139						

Cast Type:

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Bottle Firing Method:

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Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

T04 - HUNG BACK EARLY DUE TO PORPOISES IN VICINITY

* T03 - TOWED AT 15m IN AN EFFORT TO AVOID PORPOISES.

AT END OF TAN: POOLS LET GO TO FIX TWISTED WRAPS ON WARP.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <u>JUNE</u>				Year <u>2010</u>			Ship <u>CGV Viking Storm</u>				Cruise ID				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
25	T01	00:11	BE	BONGO		180	51 16.327	128 20.16	79	70					
		00:16	EN				51 16.302	128 20.12	78						
		00:20	BE	CTD		181	51 16.301	128 20.108	78	70		1			SAL, NUTS, CHL @ 10m.
		00:24	EN				51 16.30	128 20.09	78						
		00:30	BE	Trawl		182	51 16.702	128 20.135	79						SURFACE TOW
		01:00	EN				51 18.93	128 20.937	74						
25	H01	13:13	BE	CTD		183	52 13.058	129 8.207	171	160		1		✓	SAL, NUTS, CHL @ 10m
		13:15	EN				52 13.050	129 8.156							
		13:18	BE	Bongo		184	52 13.042	129 8.118	169	150		1			
		13:28	EN				52 13.005	129 7.944							
		13:35	BE	Trawl		185	52 12.934	129 8.587	170						SURFACE TOW
		14:05	EN				52 13.213	129 12.25	166						
25	H02	15:12	BE	Bongo		186	52 15.38	129 26.09	180	150					
		15:19	EN				52 15.35	129 26.15							
		15:22	BE	CTD		187	52 15.34	129 26.18	182	170		1			SAL, NUTS, CHL @ 10m
		15:34	EN				52 15.36	129 26.21	182						
		15:39	BE	Trawl		188	52 15.54	129 26.77	195						SURFACE TOW
		16:09	EN				52 16.48	129 30.43	194						

This page is for any notes or observations

H01 - 1/4 in surface, rippled sspc, light wind, partly sunny.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>June</u>				Year <u>2010</u>			Ship <u>OPV Viking Storm</u>			Cruise ID <u>2010-17</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
<u>24</u>	<u>H03</u>	<u>17:06</u>	<u>BE</u>	<u>CTD</u>		<u>189</u>	<u>52 18.86</u>	<u>129 41.56</u>	<u>208</u>	<u>200</u>		<u>1</u>			<u>SAL, MTS, CHL @ 10m</u>
		<u>17:18</u>	<u>EN</u>				<u>52 19.08</u>	<u>129 41.44</u>							
		<u>17:20</u>	<u>BE</u>	<u>Bongo</u>		<u>190</u>	<u>52 19.095</u>	<u>129 41.43</u>	<u>211</u>	<u>150</u>					
		<u>17:31</u>	<u>EN</u>				<u>52 19.226</u>	<u>129 41.31</u>	<u>211</u>						
		<u>17:36</u>	<u>BE</u>	<u>Tran</u>		<u>191</u>	<u>52 19.48</u>	<u>129 41.23</u>	<u>211</u>						<u>SURFACE TOW</u>
		<u>18:06</u>	<u>EN</u>				<u>52 20.014</u>	<u>129 45.22</u>	<u>211</u>						
<u>25</u>	<u>H04</u>	<u>19:04</u>	<u>BE</u>	<u>Bongo</u>		<u>192</u>	<u>52 22.1</u>	<u>129 57.0</u>	<u>192</u>	<u>150</u>					<u>No preserved sample - prepped for Ian Bevan's project</u>
		<u>19:14</u>	<u>EN</u>				<u>52 22.18</u>	<u>129 56.94</u>	<u>192</u>						
		<u>19:17</u>	<u>BE</u>	<u>CTD</u>		<u>193</u>	<u>52 22.22</u>	<u>129 56.903</u>	<u>202</u>	<u>190</u>		<u>1</u>			<u>SAL, MTS, CHL @ 10m</u>
		<u>19:30</u>	<u>EN</u>				<u>52 22.35</u>	<u>129 56.786</u>	<u>202</u>						
		<u>19:34</u>	<u>BE</u>	<u>Tran</u>		<u>194</u>	<u>52 22.51</u>	<u>129 57.35</u>	<u>215</u>						<u>SURFACE TOW</u>
		<u>20:04</u>	<u>EN</u>				<u>52 23.15</u>	<u>130 00.71</u>	<u>254</u>						
<u>26</u>	<u>H05</u>	<u>21:09</u>	<u>BE</u>	<u>CTD</u>		<u>195</u>	<u>52 25.602</u>	<u>130 13.32</u>	<u>330</u>	<u>230</u>		<u>1</u>			<u>SAL, MTS, CHL @ 10m</u>
		<u>21:23</u>	<u>EN</u>				<u>52 25.66</u>	<u>130 13.039</u>	<u>328</u>						
		<u>21:27</u>	<u>BE</u>	<u>Bongo</u>		<u>196</u>	<u>52 25.67</u>	<u>130 12.97</u>	<u>328</u>	<u>150</u>					
		<u>21:36</u>	<u>EN</u>				<u>52 25.66</u>	<u>130 12.87</u>	<u>328</u>						
		<u>21:41</u>	<u>BE</u>	<u>Tran</u>		<u>197</u>	<u>52 25.788</u>	<u>130 13.509</u>	<u>328</u>						<u>SURFACE TOW</u>
		<u>22:11</u>	<u>EN</u>				<u>52 24.63</u>	<u>130 16.81</u>	<u>331</u>						

Transmissometer to be cleaned before each cast, do not use Ammonia products

Cast Type:

BOT = Bottle cast, no CTD

CTD = CTD without Rosette

ROS = Rosette plus CTD

SET = Fish Set

USW = Sea Water Loop

MOR = Mooring

NET = Plankton Net Haul

DRF = Drifter

=

Bottle Firing Method:

US = Up / Stop

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

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MR = Messenger Release Time

RE = Recover Mooring Time

Produced by the Water Properties Group, IOS

WaterProperties.ca

Version: 06 March 2008

This page is for any notes or observations

404 — Very small, no ripples, milky smooth, overcast but bright.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>June</u>				Year <u>2010</u>			Ship <u>CGV William Stearn</u>			Cruise ID <u>2010-17</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
25	H06	23:10	BE	Bongo		198	52 28.74	130 28.84	175	150					⊗
		23:18	BE				52 28.76	130 28.81	175						
		23:26	BE	CTD		199	52 28.79	130 28.805	175	165		1			SAMPLES, CHL @ 10m
		23:36	BE				52 28.79	130 28.72	176						
		23:42	BE	Trawl		200	52 28.81	130 29.39							SURFACE TOW
26		00:12	BE				52 28.88	130 33.14	134						
26	H501	13:14	BE	CTD		201	53 20.99	131 4.52	48	40		1		✓	SAMPLES, CHL @ 10m
		13:18	BE				53 20.997	131 4.39	50						
		13:23	BE	Bongo		202	53 20.972	131 4.277	56	40					
		13:28	BE				53 20.991	131 4.23	56						
		13:34	BE	Trawl		203	53 21.30	131 3.799	49						SURFACE TOW
		14:04	BE				53 23.24	131 3.073	50						
26	H502	14:54	BE	BONGO		204	53 28.98	131 00.264	52	40					No preserved sample - prepped for Dan Bevan's project
		14:59	BE				53 28.912	131 00.353							
		15:02	BE	CTD		205	53 28.864	131 00.383	53	40		1			SAMPLES, CHL @ 10m
		15:08	BE				53 28.83	131 00.449							
		15:11	BE	Trawl		206	53 29.144	131 00.283	48						SURFACE TOW
		15:41	BE				53 29.576	130 59.58	53						

Cast Type:

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SET = Fish Set

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Bottle Firing Method:

US = Up / Stop
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DN = Down / No stop

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EN = End Time of Cast
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Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 06 March 2008

⊗ H06: Both bongo nets hung up on frame. Untangled & rinsed well. Some sample obtained.

H501 - OVERCAST, SE 25, 2m SWELL, WIDE SPREAD WINDMILLS.

H502 - SACK WATER.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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DAILY SCIENCE LOG				Ocean Sciences Division, Institute of Ocean Sciences											
Month <u>June</u>				Year <u>2010</u>			Ship <u>CGV Victoria</u>			Cruise ID <u>2010-17</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
27	DT01	13:04	BE	CTD		207	54 25.23	131 01.839	82	70		/		✓	SAL. POTS, CHL @ 10m
		13:08	RM				54 25.28	131 1.996							1.9 kg TIDE TEBD.
		13:11	BE	Bottle		208	54 25.32	131 2.17	88	75					
		13:17	RM				54 25.42	131 2.437							
		13:25	BE	Trawl		209	54 25.585	131 3.63	134						SURFACE TOW
		13:55	RM				54 26.05	131 8.431	135						
27	DT02	14:19	BE	Bottle		210	54 25.7	131 11.92	150	140					No preserved sample - prepped for Ian Evans project
		14:28	RM				54 25.87	131 12.09							
		14:34	BE	CTD		211	54 25.937	131 12.17	159	150		/			SAL. POTS, CHL @ 10m
		14:41	RM				54 26.016	131 12.299							
		14:48	BE	Trawl		212	54 25.988	131 13.100	170						SURFACE TOW
		15:16	RM				54 25.88	131 16.48							
27	DT03	15:57	BE	CTD		213	54 26.39	131 23.37	273	230					
		16:13	RM				54 26.44	131 23.188	268						FLOOD 0.3 kg.
		16:14	BE	Bottle		214	54 26.44	131 23.183	268	150					
		16:23	RM				54 26.477	131 23.106	270						
		16:30	BE	Trawl		215	54 26.55	131 23.855	275						SURFACE TOW
		17:00	RM				54 26.8	131 27.82							

Transmissometer to be cleaned before each cast, do not use Ammonia products

Transmissometer to be cleaned before each cast, do not use Ammonia products

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set
 USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:

UN = Up / Stop
 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
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Produced by the Water Properties Group, IOS

WaterProperties.ca
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