

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2019-068

DATE:

From:

14 AUGUST 2019

To:

19 AUGUST 2019

VESSEL:

VECTOR

PROJECT(S):

OPP-MEQ NOISE

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: Vector laptop
Data acquisition program: Seasave + Seaterm
CTD deck unit make: SBE model: 11+ serial number: 0619

Primary CTD

Make: SBE model: 9+ serial number: 1222
Primary temperature serial number: 2374
Primary conductivity serial number: 4395
Secondary temperature serial number: 4883
Secondary conductivity serial number: 3184
Transmissometer: _____ Model: _____ s/n: _____
Transmissometer: _____ Model: _____ s/n: _____
Fluorometer: Model Seapoint Cable gain: 30x s/n: 3685 P, S or NO pump?
Fluorometer: Model _____ Cable gain: _____ s/n: _____ P, S or NO pump?
Oxygen sensor: _____ Model: 1119 (P) S or NO pump?
PAR sensor: _____ Model: _____ s/n: _____ Surface PAR? Y / N
Other sensors: Altimeter s/n: 43281 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: SBE model: 25 serial number: 334
Primary temperature serial number: 4484
Primary conductivity serial number: 2128
Secondary temperature serial number: _____
Secondary conductivity serial number: _____
Transmissometer: _____ Model: _____ s/n: _____
Transmissometer: _____ Model: _____ s/n: _____
Fluorometer: Model WetLabs ECO Cable gain: 24 s/n: 2215 P, S or NO pump?
Fluorometer: Model _____ Cable gain: _____ s/n: _____ P, S or NO pump?
Oxygen sensor: SBE Model: 43 s/n: 1483 (P) S or NO pump?
PAR sensor: _____ Model: _____ s/n: _____ Surface PAR? Y / N
Other sensors: pressure SBE 29 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

Month <u>August</u>			Year <u>2019</u>			Vessel <u>VECTOR</u>			Cruise ID <u>2019-68</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
1	SWIFTSURE	15	17:15	EN	MOR		48° 30.894	124° 56.139	72		-			☐ ☐	RECOVERED SWIFTSURE MOORING
2	Swiftsure2	15	17:42	BE	CTD		48° 31.0235	124° 56.1005	72	65	-		SR, SV	☐ ☐	Gauged at 0.5m/s
			17:44	BO			° .0623	° .0967			-			☐ ☐	
			17:46	EN			° .0900	° .0949			-			☐ ☐	
3	SWIFTSURE	15	20:48	BE	MOR		48° 30.915	124° 56.160	71		-			☐ ☐	
4	Swiftsure4	16	04:52	BE	CTD		48° 34.369	125° 13.057	176	132	-		SR, SV	☐ ☐	
			04:55	BO			° 34.366	° 14.152			-			☐ ☐	
			04:58	EN			° 34.359	° 14.236			-			☐ ☐	
5	Swiftsure5		09:19	BE	CTD		48° 38.2892	124° 54.7439	74	70	-			☐ ☐	
			09:21	BO			° 38.2844	° 54.7468		70	-			☐ ☐	
			09:22	EN			° 38.2823	° 54.7741			-			☐ ☐	
6	Swiftsure6		12:18	BE	CTD		48° 37.1158	125° 12.7989	108	105	-			☐ ☐	
			12:20	BO			° 37.1056	° 12.8118		105	-			☐ ☐	
			12:22	EN			° 37.0964	° 12.8211			-			☐ ☐	
7	Swiftsure7	16	18:21	BE	CTD		48° 35.2015	124° 49.218	60	56	-		CON, SV	☐ ☐	End of HIETA transect
			18:22	BO			° .2168	° .2301			-			☐ ☐	
			18:23	EN			° .2315	° .2429			-			☐ ☐	
8	PORT KENNEL	16	20:20	EN	MOR		48° 30.263	124° 30.823			-			☐ ☐	RECOVERED PORT KENNEL MOORING
			:				° .	° .			-			☐ ☐	

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
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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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Page 2 of

Month <u>AUGUST</u>				Year <u>2019</u>			Vessel <u>VECTOR</u>				Cruise ID <u>2019-63</u>				
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude Longitude		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
9	<u>PORT RENFREW</u>	<u>16</u>	<u>:</u>	<u>13E</u>	<u>170R</u>		<u>48° 30.267</u>	<u>124° 31.009</u>	<u>170</u>		<u>-</u>			☐ ☐	<u>PORT RENFREW</u>
10	<u>PORT 10 RENFREW</u>	<u>16</u>	<u>22:27</u>	<u>13C</u>	<u>CTD</u>		<u>48° 30.2501</u>	<u>124° 30.9210</u>	<u>167</u>	<u>160</u>	<u>-</u>		<u>CON SR</u>	☐ ☐	<u>NEAR MOORING</u>
			<u>22:30</u>	<u>130</u>			<u>° .2293</u>	<u>° .8265</u>			<u>-</u>			☐ ☐	
			<u>22:33</u>	<u>EN</u>			<u>° .2037</u>	<u>° .7274</u>			<u>-</u>			☐ ☐	
11	<u>PORT 11 RENFREW</u>	<u>17</u>	<u>03:02</u>	<u>BE</u>	<u>CTD</u>		<u>48° 31.4524</u>	<u>124° 36.08130</u>	<u>156</u>	<u>153</u>	<u>-</u>			☐ ☐	
			<u>03:09</u>	<u>BO</u>			<u>° 31.4590</u>	<u>° 36.0723</u>			<u>-</u>			☐ ☐	
			<u>03:12</u>	<u>EN</u>			<u>° 31.4761</u>	<u>° 36.1059</u>			<u>-</u>			☐ ☐	
12	<u>Trans 12</u>	<u>17</u>	<u>05:04</u>	<u>BE</u>	<u>CTD</u>		<u>48° 31.360</u>	<u>124° 34.628</u>	<u>148</u>		<u>-</u>	<u>-</u>	<u>SR</u>	☒ ☐	
			<u>05:07</u>	<u>BO</u>			<u>° 31.366</u>	<u>° 34.612</u>		<u>143</u>	<u>-</u>			☐ ☐	
			<u>05:09</u>	<u>EN</u>			<u>° 31.374</u>	<u>° 34.603</u>			<u>-</u>			☐ ☐	
13	<u>Trans 13</u>	<u>17</u>	<u>07:10</u>	<u>BE</u>	<u>CTD</u>		<u>48° 30.785</u>	<u>124° 33.161</u>	<u>168</u>		<u>-</u>	<u>-</u>	<u>SR</u>	☒ ☐	
			<u>07:13</u>	<u>BO</u>			<u>° 30.792</u>	<u>° 33.150</u>		<u>163</u>	<u>-</u>			☐ ☐	
			<u>07:16</u>	<u>EN</u>			<u>° 30.805</u>	<u>° 33.140</u>			<u>-</u>			☐ ☐	
14	<u>Trans 14</u>	<u>17</u>	<u>09:06</u>	<u>BE</u>	<u>CTD</u>		<u>48° 29.860</u>	<u>124° 29.191</u>	<u>162</u>		<u>-</u>	<u>-</u>	<u>SR</u>	☒ ☐	
			<u>09:09</u>	<u>BO</u>			<u>° 29.842</u>	<u>° 29.148</u>			<u>-</u>			☐ ☐	
			<u>09:12</u>	<u>EN</u>			<u>° 29.820</u>	<u>° 29.110</u>			<u>-</u>			☐ ☐	
15	<u>Trans 15</u>	<u>17</u>	<u>11:07</u>	<u>BE</u>	<u>CTD</u>		<u>48° 31.021</u>	<u>124° 34.171</u>	<u>165</u>		<u>-</u>		<u>SR</u>	☒ ☐	
			<u>11:11</u>	<u>BO</u>			<u>° 30.997</u>	<u>° 34.125</u>		<u>160</u>	<u>-</u>			☐ ☐	
			<u>11:14</u>	<u>EN</u>			<u>° 30.970</u>	<u>° 34.060</u>			<u>-</u>			☐ ☐	

Event Type:

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___ = ___

Bottle Firing Method:

US = Up / Stop (default)
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Notes: _____

Time Code:

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Page _____ of _____

Month <i>August</i>			Year <i>2019</i>			Vessel <i>Vector</i>			Cruise ID <i>2019-068</i>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
16	JORDAN RIVER 16	17	14:34	BE	CTD		48°23.833	124°08.174	118		-	-	SR	☐ ☐	SBE 9+
			14:37	BO			°23.848	°08.212		115	-	-		☐ ☐	
			14:41	EN			°23.852	°08.240			-	-		☐ ☐	
17	JORDAN RIVER 17	17	16:29	BE	CTD		48°23.826	124°08.088	118		-	-	CO.	☐ ☐	SBE 9+
			16:32	BO			°23.841	°08.111		115	-	-		☐ ☐	
			16:34	EN			°23.858	°08.148			-	-		☐ ☐	
18	JORDAN RIVER 18	17	15:58		MOR		48°23.798	124°08.067	120		-	-		☐ ☐	JORDAN RIVER MOORING DEPLOYED
19	Sooke 19	17	20:24	BE	CTD		48°17.527	124°39.216	164		-	-	CO	☐ ☐	SBE 9+
			20:27	BO			°17.552	°39.173		162	-	-		☐ ☐	
			20:31	EN			°17.579	°39.130			-	-		☐ ☐	
20	Sooke 20	17	20:45	EN			48°17.579	124°39.130			-	-		☐ ☐	Sooke MOORING RECOVERED
21	Sooke 21	17	22:27	BE	MOR		48°17.401	123°39.310	170		-	-		☐ ☐	
22	Sooke 22	18	03:35	BE	CTD		48°17.522	123°43.399			-	-	SR	☐ ☐	
			03:38	BO			°17.512	°43.423			-	-		☐ ☐	
			03:	EN			°17.	°43.			-	-		☐ ☐	
23	Sooke 23	18	04:22	BE	CTD		48°17.656	123°44.219	178		-	-	SR	☐ ☐	
			04:26	BO			°17.635	°44.327		173	-	-		☐ ☐	
			04:29	EN			°17.659	°44.450			-	-		☐ ☐	
			:				°	°			-	-		☐ ☐	

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Notes: _____

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This page is for any notes or observations

Cast #22 was aborted due to the winch free wheeling and paying out 50m of wire after setting the CTD on the ocean floor. No damage was sustained.

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Page _____ of _____

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24	Sooke 24	18	06:36	BE	CTD	/	48°17.622	123°40.535	172		/	/	SR	☐ ☐	
			06:40	BO			°17.658	°40.668		168	-			☐ ☐	
			06:43	EN			°17.690	°40.778			-			☐ ☐	
25	Sooke 25	18	08:40	BE	CTD	/	48°16.758	123°34.956	173		/	/	SR	☐ ☐	
			08:45	BO			°16.651	°35.042		170	-			☐ ☐	
			08:49	EN			°16.558	°35.047			-			☐ ☐	
26	Sooke 26	18	10:34	BE	CTD	/	48°17.708	123°43.697	175		-		SR	☐ ☐	
			10:38	BO			°17.712	°43.602		173	-			☐ ☐	
			10:41	EN			°17.712	°43.541			-			☐ ☐	
27	Haro Strait 27	18	14:21	BE	CTD	/	48°29.686	123°11.646	227		/	/	SR	☐ ☐	
			14:26	BO			°29.662	°11.638		224	-			☐ ☐	
			14:30	EN			°29.638	°11.636			-			☐ ☐	
28	Haro Strait	18	16:47	BE	MOR		48°29.753	123°11.585	232		-			☐ ☐	
29	BOUNDARY PASS		:		MOR		°	°			-			☐ ☐	
30	BOUNDARY PASS	18	21:53	BE	CTD	/	48°43.954	123°09.236	187		-		CO	☐ ☐	
			21:57	BO			°43.987	°09.287		183	-			☐ ☐	
			22:02	EN			°43.990	°09.306			-			☐ ☐	
31	SWANS IN CHANNEL	18	23:10	BE	MOR		48°44.358	123°15.449	72		-			☐ ☐	140.017 10 152
			:				°	°			-			☐ ☐	

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32	Swanson Channel	32	19	03:17	BE	CTD	✓	48°43.900	123°15.968	95	-	-	SR	☐	
	Swanson Channel			03:19	BO			°43.874	°15.909					☐	
				03:21	EN			°43.860	°15.870					☐	
33	Swanson Channel	33	19	05:27	BE	CTD	✓	48°44.656	123°17.040	112	-	-	SR	☐	
				05:29	BO			°44.658	°17.051					☐	
				05:32	EN			°44.658	°17.059					☐	
34	Swanson Channel	34	19	07:12	BE	CTD	✓	48°44.620	123°18.319	108	-	-	SR	☐	
				07:15	BO			°44.612	°18.268					☐	
				07:17	EN			°44.610	°18.272					☐	
35	Swanson Channel	35	19	09:16	BE	CTD	✓	48°45.535	123°18.356	93	-	-	SR	☐	
				09:19	BO			°45.544	°18.352					☐	
				09:21	EN			°45.554	°18.352					☐	
36	Swanson Channel	36	19	11:05	BE	CTD	✓	48°44.924	123°18.553	105	-	-	SR	☐	
				11:07	BO			°44.932	°18.569					☐	
				11:09	EN			°44.940	°18.579					☐	
				:				°	°		-			☐	
				:				°	°		-			☐	
				:				°	°		-			☐	
				:				°	°		-			☐	
				:				°	°		-			☐	
				:				°	°		-			☐	

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