Captain: Dustin Flahr
First Officer: Thomas Banfai
Second Officer: Rachel Winchester
Third Officer:
~~Fishing Master~~: Mike Petrie
Bosun
Chief Engineer:

Mission Participants / Agencies:

DFO

**** Chief Scientist to complete section below OR cut and tape from cruise plan ****

1st Leg Scientific Personnel: Chief Scientist: Caitlin O'Neill

Name	Watch	Cabin	Name	Watch	Cabin
Peter Van Buren	Day	Port			
Christie Morrison	Day	St. Fwd.			
Danielle Caleb	Night	Staff			
Caitlin O'Neill	Day	ChSci.			

2nd Leg Scientific Personnel: Chief Scientist:

Name	Watch	Cabin	Name	Watch	Cabin

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

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

Data logging computer: ~~Seasave V. 7.26.7.121~~ Laptop - FC9JJD1A Vector ASUS

Data acquisition program: Seasave V. 7.26.7.121

CTD deck unit make: SBE model: 11 serial number: 508

Primary CTD

Make: SBE model: 9 serial number: 506

Primary temperature serial number: 2374

Primary conductivity serial number: 3184

Secondary temperature serial number: 4883

Secondary conductivity serial number: 4395

Transmissometer: _____ Model: _____ s/n: _____

Transmissometer: _____ Model: _____ s/n: _____

Fluorometer: Model Seapoint Cable gain: 10x s/n: 3982 **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: _____ Model: _____ s/n: _____ **Surface PAR? Y / N**

Other sensors: Valeport s/n: 75321 **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)

Rosette Setup:
Number of bottles: _____
Manufacturer: _____
Volume of bottles (litres): _____

Winches:
1. Make: Swann Model: 329 Serial #: 1483 Used for: CTD
2. Make: _____ Model: _____ Serial #: _____ Used for: _____
3. Make: _____ Model: _____ Serial #: _____ Used for: _____

Comments on performance during cruise (comments should also be reflected in the post-cruise report):
_____
_____
_____

Salinometer:
Make: _____ Model: _____ Serial Number: _____
Comments on performance during cruise (comments should also be reflected in the post-cruise report):
_____

Oxygen Kit(s):
Make: _____ Model: _____ Kit Number: _____
Make: _____ Model: _____ Kit Number: _____
Comments on performance during cruise (comments should also be reflected in the post-cruise report):
_____
_____

Thermosalinograph System (SBE21): SBE 21 SN 3363
Program: _____ Version: _____
Sampling interval (seconds): _____
Fluorometer sensor serial number: _____
Comments on performance during cruise (comments should also be reflected in the post-cruise report):
_____

ADCP Setup:
Computer time zone: _____ User Exits: Name: _____ Exit points: _____
Sampling interval (sec): _____ Name: _____ Exit points: _____
Bin Length: (2^x): _____ Name: _____ Exit points: _____
Pulse Length: _____ Work File: _____
Buffer (bytes): _____
Gyro Offset: _____
Comments on performance during cruise (comments should also be reflected in the post-cruise report):
_____
_____

CTD Test Cast Information

Test Cast along side? Yes (No)
Comments _____

Test Cast in Saanich Inlet or other location? (Yes) No
Comments _____

CTD pressure reading on deck (db), before cast: 1.7 after cast: _____

Pumps working? (Yes) (0011) No (0010)

Secondary Temp – Primary Temp: 0.001
(Average from the mixed region)

Secondary Salinity – Primary Salinity: -0.006
(Average from the mixed region)

Additional Comments:
_____
_____
_____
_____

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month Oct **Year** 2021 **Vessel** Vector **Cruise ID** 2021-018

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
1	Test CTD	7	05:28	BE	CTD	/	48° 39.361	123° 29.335	97		-			☐☐	comm errors
			05:30	BO			° 39.358	° 29.336		94	-			☐☐	
			05:32	EN			° 39.355	° 29.336			-			☐☐	
2	Swiftsure MEQ	7	18:08	RE	MOR		48° 30.924	124° 56.180	73		-		CM	☐☐	
3	Swiftsure MEQ	7	20:45	DE	MOR		48° 30.937	124° 56.170	75		-		CM	☐☐	
4	Swiftsure MEQ	7	21:16	BE	CTD		48° 31.010	124° 56.000	74		-		CM CO	☐☐	
			21:18	BO			° 31.015	° 55.990		68	-			☐☐	
			21:19	EN			° 31.016	° 56.002			-			☐☐	
5	Swiftsure Shelf	8	01:06	RE	MOR		48° 33.739	124° 49.379	91		-		CM	☐☐	
6	Swiftsure Shelf	8	02:11	DE	MOR		48° 33.742	124° 49.383	90		-		CM	☐☐	
7	Swiftsure Shelf	8	02:45	BE	CTD		48° 33.739	124° 49.643	90		-		DC	☐☐	
			02:47	BO			48° 33.750	124° 49.672		79	-			☐☐	
			02:49	EN			48° 33.758	124° 49.694			-			☐☐	
8	Swiftsure Canyon	8	15:08	RE	MOR		48° 30.851	124° 49.783	216		-		CM	☐☐	
9	Swiftsure Canyon	8	16:43	DE	MOR		48° 30.845	124° 49.786	215		-		CM	☐☐	
10	Swiftsure Canyon	8	17:14	BE	CTD		48° 30.865	124° 49.759	219		-		CM CO	☐☐	inconsistent descent rate
			17:19	BO			° 30.896	° 49.770		206	-			☐☐	
			17:24	EN			° 30.968	° 49.864			-			☐☐	
11	Swiftsure ISZ	8	19:21	DE	MOR		48° 33.125	125° 00.432	43		-		CM	☐☐	

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

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

Notes: _____

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month OCTOBER | **Year** 2021 | **Vessel** VECTOR | **Cruise ID** 2021-013

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/Fl Cleaned	Comments
12	Swiftsure 157	8	19:47	BE	CTD		48° 33.272	125° 00.653	43		-		CM CO	☐☐	
			19:48	BO			°33.295	°00.686		40	-			☐☐	
			19:49	EN			°33.318	°00.720			-			☐☐	
13	Swift_13	8	20:43	RE	MOR		48° 29.575	124° 57.096	93		-			☐☐	
14	Swift_12	8	21:10	RE	MOR		48° 30.306	124° 56.608	84		-			☐☐	
15	Swift_10	8	21:37	RE	MOR		48° 32.930	124° 54.926	71		-			☐☐	
16	Swift_11	8	22:05	RE	MOR		48° 32.049	124° 55.483	70		-			☐☐	
17	Swift_9	8	22:31	RE	MOR		48° 33.669	124° 54.501	72		-			☐☐	
18	Swift_8	8	22:51	RE	MOR		48° 34.462	124° 54.088	71		-			☐☐	
19	Swift_7	8	23:12	RE	MOR		48° 35.217	124° 53.551	73		-			☐☐	
20	Swift_6	8	23:31	RE	MOR		48° 35.977	124° 53.161	65		-			☐☐	
21	Swift_5	8	23:49	RE	MOR		48° 36.700	124° 52.711	57		-			☐☐	
22	Swift_4	9	00:42	RE	MOR		48° 37.522	124° 52.362	51		-			☐☐	
23	Swift_3	9	01:00	RE	MOR		48° 38.253	124° 51.867	45		-			☐☐	
24	Swift_2	9	01:21	RE	MOR		48° 39.044	124° 51.428	23		-			☐☐	
25	Swift_1	9	01:39	RE	MOR		48° 39.551	124° 50.968	17		-			☐☐	
26	Nitnat	9	02:21	BE	CTD		48° 36.252	124° 55.870	61		-		DC	☐☐	
			02:22	BO			°36.257	°55.874		54	-			☐☐	
			02:24	EN			°36.257	°55.882			-			☐☐	

Event Type:
BOT = Bottle cast (no CTD)
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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
DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

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

Notes: _____

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month October **Year** 2021 **Vessel** Vector **Cruise ID** 2021-018

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
27	JDF27	9	05:15	BE	CTD		48°30.800	124°48.358	220		-		DE	☐☐	
			05:20	BO			°30.878	°48.431		214	-			☐☐	
			05:24	EN			°30.884	°48.498			-			☐☐	
28	JDF28	9	06:30	BE	CTD		48°30.486	124°39.684	230		-		DE	☐☐	
			06:35	BO			°30.500	°39.804		225	-			☐☐	
			06:39	EN			°30.516	°39.858			-			☐☐	
29	JDF29	9	07:39	BE	CTD		48°30.241	124°31.183	171		-		DE	☐☐	
			07:43	BO			°30.247	°31.201		164	-			☐☐	
			07:46	EN			°30.256	°31.208			-			☐☐	
30	JDF30	9	08:48	BE	CTD		48°27.497	124°21.852	142		-		DC	☐☐	
			08:51	BO			°27.475	°21.854		140	-			☐☐	
			08:53	EN			°27.452	°21.864			-			☐☐	
31	JDF31	9	09:46	BE	CTD		48°24.965	124°12.367	120		-		DC	☐☐	
			09:48	BO			°24.956	°12.341		111	-			☐☐	
			09:50	EN			°24.946	°12.316			-			☐☐	
32	JDF32	9	10:51	BE	CTD		48°22.169	124°1.231	120		-		DC	☐☐	
			10:53	BO			°22.166	°1.175		114	-			☐☐	
			10:55	EN			°22.162	°1.124			-			☐☐	
			:				° .	° .			-			☐☐	

Event Type:
BOT = Bottle cast (no CTD)
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MOR = Mooring
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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
DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

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

Notes: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month October **Year** 2021 **Vessel** Vector **Cruise ID** 2021-018

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/Fl Cleaned	Comments
33	JDF33	9	11:43	BE	CTD		48° 20.027	124° 51.650	143		-		DC	☐☐	
			11:46	BO			°19.991	°51.605		135	-			☐☐	
			11:48	EN			°19.973	°51.581			-			☐☐	
34	JDF34	9	12:48	BE	CTD		48° 17.587	123° 39.386	163		-		DC	☐☐	
			12:51	BO			°17.602	°39.311		157	-			☐☐	
			12:53	EN			°17.626	°39.222			-			☐☐	
35	Port Renfrew	9	15:47	RE	MOR		48° 30.279	124° 31.044	168		-		CM	☐☐	
36	Port Renfrew	9	19:16	DE	MOR		48° 30.281	124° 31.057	168		-		CM	☐☐	
37	Port Renfrew	9	19:42	BE	CTD		48° 30.455	124° 31.100	161		-		CM CO	☐☐	
			19:45	BO			°30.458	°31.115		152	-			☐☐	
			19:48	EN			°30.456	°31.122			-			☐☐	
38	Jordan River	9	21:59	RE	MOR		48° 23.792	124° 08.036	120		-		CM	☐☐	
39	Jordan River	9	23:48	DE	MOR		48° 23.789	124° 08.031	120		-		CM	☐☐	
40	Jordan River	10	00:05	BE	CTD		°23.707	°08.107	124		-		CM	☐☐	
			00:08	BO			°23.688	°08.102		117	-			☐☐	
			00:10	EN			°23.674	°08.096			-			☐☐	
41	JDF41	10	01:00	BE	CTD		48° 24.821	124° 12.804	128		-		CM CO	☐☐	
			01:02	BO			°24.814	° 12.815		121	-			☐☐	
			01:05	EN			°24.812	° 12.833			-			☐☐	

Event Type:
BOT = Bottle cast (no CTD)
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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
DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

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

Notes: _____

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month OCTOBER | **Year** 2021 | **Vessel** Vector | **Cruise ID** 2021-018

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
42	JDF42	10	02:17	BE	CTD		48° 21.805	124° 0.368	122		-		DC	☐☐	
			02:19	BO			°21.798	°0.371		115	-			☐☐	
			02:22	EN			°21.796	°0.372			-			☐☐	
43	JDF43	10	03:30	BE	CTD		48° 19.699	123° 49.410	160		-		DC	☐☐	
			03:33	BO			°19.706	°49.475		153	-			☐☐	
			03:36	EN			°19.721	°49.540			-			☐☐	
44	JDF44	10	04:57	BE	CTD		48° 17.058	123° 37.568	185		-		DC	☐☐	
			05:00	BO			°17.092	°37.655		177	-			☐☐	
			05:04	EN			°17.122	°37.760			-			☐☐	
45	JDF45	10	07:33	BE	CTD		48° 20.632	123° 22.747	40		-		DC	☐☐	Missed previous
			07:34	BO			°20.634	°22.756		33	-			☐☐	CTD cast due to
			07:35	EN			°20.632	°22.787			-			☐☐	weather
46	JDF46	10	09:08	BE	CTD		48° 23.317	123° 11.173	72		-		DC	☐☐	
			09:09	BO			°23.299	°11.178		64	-			☐☐	
			09:10	EN			°23.274	°11.186			-			☐☐	
47	HS47	10	10:33	BE	CTD		48° 30.625	123° 9.797	282		-		DC	☐☐	
			10:38	BO			°30.630	°9.772		274	-			☐☐	
			10:42	EN			°30.654	°9.766			-			☐☐	
			:				° .	° .			-			☐☐	

Event Type:
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DRF = Drifter
____ = _____

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

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

Notes: _____

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month October **Year** 2021 **Vessel** Vector **Cruise ID** 2021-018

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
48	HS48	10	12:11	BE	CTD		48° 38.411	123° 12.712	234		-		DC	☐☐	
			12:15	BO			° 38.410	° 12.696		222	-			☐☐	
			12:19	EN			° 38.447	° 12.733			-			☐☐	
49	BP49	10	13:35	BE	CTD		48° 43.886	123° 6.222	150		-		DC	☐☐	data archive
			13:37	BO			° 43.924	° 6.175			-			☐☐	station "HS49"
			13:39	EN			° 43.972	° 6.121			-			☐☐	Corrected to BP49
50	BP50	10	14:14	BE	CTD		48° 46.531	123° 3.514	118		-		PVB	☐☐	
			14:16	BO			° 46.564	° 3.496		115	-			☐☐	
			14:18	EN			° 46.574	° 3.448			-			☐☐	
51	East Point	10	14:45	RE	MOR		48° 46.560	123° 04.161	85		-		CM	☐☐	
52	East Point	10	17:12	DE	MOR		48° 46.587	123° 04.179	84		-		CM	☐☐	
53	East Point	10	17:31	BE	CTD		48° 46.441	123° 04.148	128		-		CM CO	☐☐	depth jumped to 182m paused at 124m until 17:35:10 & then started descent again
			17:36	BO			° 46.405	° 04.238	182	186	-			☐☐	
			17:39	EN			° 46.378	° 04.297			-			☐☐	
54	Boundary Pass	10	18:10	RE	MOR		48° 44.019	123° 08.717	174		-		CM	☐☐	
55	Boundary Pass	10	21:05	DE	MOR		48° 44.025	123° 08.724	175		-		CM	☐☐	
56	Boundary Pass	10	21:43	BE	CTD		48° 44.866	123° 09.018	133		-		CM CO	☐☐	
			21:46	BO			° 44.894	° 09.131		130	-			☐☐	
			21:48	EN			° 44.902	° 09.209			-			☐☐	

Event Type:
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DRF = Drifter
____ = _____

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DN = Down / No stop

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

Notes: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month OCTOBER **Year** 2021 **Vessel** VECTOR **Cruise ID** 2021-018

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
57	Swanson Channel	10	22:41	RE	MOR		48°44.358	123°15.453	72		-		CM	☐☐	
58	Swanson Channel	11	01:35	DE	MOR		48°44.362	123°15.460	72		-		CM	☐☐	
59	Swanson Channel	11	02:01	BE	CTD		48°44.388	123°15.301	73		-		DC	☐☐	
			02:02	BO			°44.378	°15.272		71	-			☐☐	
			02:04	EN			°44.380	°15.246			-			☐☐	
60	SC60	11	02:54	BE	CTD		48°45.985	123°20.077	77		-		DC	☐☐	
			02:56	BO			°45.984	°20.059		75	-			☐☐	
			02:57	EN			°45.979	°20.032			-			☐☐	
61	BP61	11	04:09	BE	CTD		48°44.429	123°7.126	133		-		DC	☐☐	
			04:11	BO			°44.438	°7.177		128	-			☐☐	
			04:14	EN			°44.454	°7.237			-			☐☐	
62	SOG62	11	05:22	BE	CTD		48°48.869	122°59.552	221		-		DC	☐☐	
			05:26	BO			°48.841	°59.429		205	-			☐☐	
			05:29	EN			°48.805	°59.270			-			☐☐	
63	SOG63	11	06:37	BE	CTD		48°51.194	123°8.070	156		-		DC	☐☐	
			06:39	BO			°51.174	°8.044		151	-			☐☐	
			06:42	EN			°51.144	°8.011			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

Event Type:
BOT = Bottle cast (no CTD)
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US = Up / Stop (default)
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Time Code:
BE = Beginning Time of Cast
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Notes: _____

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month October **Year** 2021 **Vessel** Vector **Cruise ID** 2021-018

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
64	SOGS-star 64	11	08:01	BE	CTD		48°55.044	123°18.452	186		-		DC	☐☐	
			08:04	BO			°54.994	°18.390		184	-			☐☐	
			08:07	EN			°54.918	°18.322			-			☐☐	
65	SOGS-star 65	11	09:44	BE	CTD		49°4.250	123°24.368	268		-		DC	☐☐	
			09:48	BO			°4.186	°24.330		257	-			☐☐	
			09:53	EN			°4.164	°24.324			-			☐☐	
66	SOGS-star 66	11	11:02	BE	CTD		48°55.958	123°24.056	105		-		DC	☐☐	computer froze needed restart
			11:03	BO			°55.964	°24.024		100	-			☐☐	-Docking station needed re-boot
			11:05	EN			°55.973	°23.986			-			☐☐	
67	SOGS-star 67	11	11:32	BE	CTD		48°56.971	123°26.641	86		-		DC	☐☐	
			11:34	BO			°56.950	°26.654		77	-			☐☐	
			11:35	EN			°56.929	°26.660			-			☐☐	
68	SOGS-star 68	11	13:00	BE	CTD		49°2.563	123°18.276	143		-		DC	☐☐	
			13:03	BO			°2.569	°18.269		135	-			☐☐	
			13:05	EN			°2.562	°18.268			-			☐☐	
69	SOGS-star 69	11	13:53	BE	CTD		48°58.715	123°15.971	156		-		DC	☐☐	
			13:56	BO			°58.708	°15.960		150	-			☐☐	
			13:59	EN			°58.698	°15.958			-			☐☐	
			:				° .	° .			-			☐☐	

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month October **Year** 2021 **Vessel** Vector **Cruise ID** 2021-018

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/Fl Cleaned	Comments
70	SOGS_star70	11	15:23	BE	CTD		48°58.824	123°30.983	67		-		CM	☐☐	depth recorded as 71 in file - bridge
			15:25	BO			°58.824	°30.979		62	-			☐☐	was having trouble getting an initial depth reading
			15:26	EN			°58.825	°30.976			-			☐☐	
71	SOGS_star71	11	16:01	BE	CTD		49°02.400	123°30.037	300		-		CM	☐☐	16 03:40 20° lead to port continues w/lead throughout cast
			16:06	BO			°02.384	°29.921		291	-			☐☐	
			16:11	EN			°02.416	°29.862			-			☐☐	
72	SOGS	11	17:06	RE	MOR		48°58.800	123°24.258	234		-		CM	☐☐	
73	SOGS	11	19:59	DE	MOR		48°58.798	123°24.259	245		-			☐☐	
74	SOGS	11	20:31	BE	CTD		48°58.675	123°24.266	236		-		PVB	☐☐	
			:35	BO			°58.608	°24.312		225	-			☐☐	
			:39	EN			°58.532	°24.314			-			☐☐	
75	SOGN	11	22:32	RE	MOR		49°11.573	123°20.802	193		-		CM	☐☐	
76	SOGN	12	01:13	DE	MOR		49°11.572	123°20.801	193		-		CM	☐☐	
77	SOGN	12	01:36	BE	CTD		49°11.606	123°20.695	190		-		CM CO	☐☐	
			01:39	BO			°11.603	°20.681		187	-			☐☐	
			01:43	EN			°11.596	°20.693			-			☐☐	
78	SOG78	12	02:14	BE	CTD		49°15.053	123°20.488	213		-		DC	☐☐	
			02:17	BO			°15.064	°20.495		206	-			☐☐	
			02:21	EN			°15.060	°20.510			-			☐☐	

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month October | **Year** 2021 | **Vessel** Vector | **Cruise ID** 2021-018

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
79	SOG79	12	03:26	BE	CTD		49° 6.593	123° 24.529	243		-		DC	☐☐	
			03:30	BO			° 6.553	° 24.586		234	-			☐☐	
			03:34	EN			° 6.504	° 24.617			-			☐☐	
80	SOG80	12	04:41	BE	CTD		48° 57.827	123° 22.285	218		-		DC	☐☐	
			04:45	BO			° 57.811	° 22.232		212	-			☐☐	
			04:49	EN			° 57.790	° 22.202			-			☐☐	
81	SOG81	12	05:53	BE	CTD		48° 52.342	123° 10.306	145		-		DC	☐☐	
			05:56	BO			° 52.301	° 10.278		139	-			☐☐	
			05:58	EN			° 52.249	° 10.218			-			☐☐	
82	BP82	12	07:06	BE	CTD		48° 46.750	123° 2.543	198		-		DC	☐☐	
			07:10	BO			° 46.781	° 2.528		187	-			☐☐	
			07:13	EN			° 46.811	° 2.515			-			☐☐	
83	BP83	12	8:40	BE	CTD		48° 42.461	123° 16.694	140		-		DC	☐☐	strong current
			8:42	BO			° 42.464	° 16.793		130	-			☐☐	
			8:44	EN			° 42.462	° 16.862			-			☐☐	
84	SC84	12	10:12	BE	CTD		48° 41.362	123° 16.267	276		-		DC	☐☐	strong current
			10:16	BO			° 41.302	° 16.354		249	-			☐☐	
			10:20	EN			° 41.239	° 16.387			-			☐☐	
			:				° .	° .			-			☐☐	

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month October **Year** 2021 **Vessel** Vector **Cruise ID** 2021-018

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/Fl Cleaned	Comments
85	HS85	12	11:25	BE	CTD		48°31.790	123°13.393	150		-		DC	☐☐	
			11:28	BO			°31.788	°13.384		141	-			☐☐	
			11:30	EN			°31.776	°13.361			-			☐☐	
86	HS86	12	12:36	BE	CTD		48°24.737	123°13.272	98		-		DC	☐☐	strong current
			12:36	BO			°24.734	°13.247		41	-			☐☐	
			12:37	EN			°24.743	°13.218			-			☐☐	
87	HS87	12	13:49	BE	CTD		48°22.886	123°21.388	95		-		DC	☐☐	
			13:51	BO			°22.873	°21.343		89	-			☐☐	
			13:52	EN			°22.862	°21.290			-			☐☐	
88	HS88	12	14:59	BE	CTD		°18.431	°29.076	113		-		CM	☐☐	
			15:01	BO			°18.425	°29.083		108	-			☐☐	
			15:03	EN			°18.414	°29.069			-			☐☐	
89	SDF89	12	16:16				48°17.365	123°40.045	176		-		PVB	☐☐	B-10
			16:19				°17.334	°39.972		170	-			☐☐	
			16:22				°17.302	°39.899			-			☐☐	
90	Sooke	12	16:48	RE	MOR		48°17.358	123°39.090	163		-		CM	☐☐	
91	Sooke	12	18:33	DE	MOR		48°17.359	123°39.097	164		-		CM	☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month OCTOBER | **Year** 2021 | **Vessel** VECTOR | **Cruise ID** 2021-018

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
92	Sooke	12	20:11	BE	CTD		48°17.370	123°38.931	167		-		PVB/CM	☐☐	
			20:14	BO			°17.356	°38.820		159	-			☐☐	
			20:18	EN			°17.338	°38.834			-			☐☐	
93	Haro Strait	12	23:48	RE	MOR		48°29.757	123°11.510	234		-			☐☐	
94	Haro Strait	13	02:06	DE	MOR		48°29.781	123°11.504	234		-			☐☐	
95	Haro Strait	13	02:26	BE	CTD		48°29.980	°11.800	231		-		DC	☐☐	
			02:30	BO			°29.154	°11.833		213	-			☐☐	
			02:35	EN			°29.358	°11.886			-			☐☐	
96	BP star 96	13	04:15	BE	CTD		48°41.935	123°16.261	233		-		DC	☐☐	
			04:19	BO			°41.897	°16.247			-			☐☐	
			04:23	EN			°41.813	°16.276		231	-			☐☐	
97	BP star 97	13	05:57	BE	CTD		48°45.650	123°3.761	196		-		DC	☐☐	
			06:01	BO			°45.634	°3.805		191	-			☐☐	
			06:04	EN			°45.596	°3.863			-			☐☐	
98	BP star 98	13	06:36	BE	CTD		48°43.762	123°8.670	190		-		DC	☐☐	
			06:39	BO			°43.733	°8.758		175	-			☐☐	
			06:42	EN			°43.660	°8.844			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

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Notes: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month October | **Year** 2021 | **Vessel** Vector | **Cruise ID** 2021-018

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
99	BPstar99	13	07:01	BE	CTD		48° 45.254	123° 9.854	133		-		DC	☐☐	
			07:03	BO			°45.277	°9.875		125	-			☐☐	
			07:04	EN			°45.300	°9.899			-			☐☐	
100	BPstar100	13	07:28	BE	CTD		48° 45.537	123° 10.325	299		-		DC	☐☐	
			07:32	BO			°45.531	°10.525		320	-			☐☐	
			07:37	EN			°45.13	°10.729			-			☐☐	
101	BPstar101	13	08:03	BE	CTD		48° 45.284	123° 9.149	105		-		DC	☐☐	
			08:04	BO			°45.296	°9.152		98	-			☐☐	
			08:06	EN			°45.317	°9.160			-			☐☐	
102	SCstar102	13	08:39	BE	CTD		48° 43.290	123° 13.488	288		-		DC	☐☐	
			08:44	BO			°43.321	°13.541		280	-			☐☐	
			08:48	EN			°43.357	°13.622			-			☐☐	
103	SCstar103	13	09:30	BE	CTD		48° 45.086	123° 22.169	38		-		DC	☐☐	
			09:30	BO			°45.082	°22.175		33	-			☐☐	
			09:31	EN			°45.076	°22.190			-			☐☐	
104	SCstar104	13	10:41	BE	CTD		48° 39.200	123° 15.959	114		-		DC	☐☐	
			10:42	BO			°39.187	°15.932		112	-			☐☐	
			10:44	EN			°39.164	°15.911			-			☐☐	
			:				° .	° .			-			☐☐	

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month October **Year** 2021 **Vessel** Vector **Cruise ID** 2021-018

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
105	SCstar105	13	11:59	BE	CTD		48° 46.410	123° 21.007	59		-		DC	☐☐	
			12:00	BO			° 46.403	° 21.001		52	-			☐☐	
			12:01	EN			° 46.393	° 20.994			-			☐☐	
106	SC star106	13	12:44	BE	CTD		48° 43.162	123° 16.600	177		-		DC	☐☐	
			12:48	BO			° 43.163	° 16.637		167	-			☐☐	
			12:51	EN			° 43.170	° 16.686			-			☐☐	
107	BP107	13	14:44	BE	CTD		48° 43.354	123° 11.960	275		-		CM CO	☐☐	
			14:48	BO			° 43.363	° 11.879		274	-			☐☐	
			14:53	EN			° 43.404	° 11.696			-			☐☐	
108	BP108	13	15:44	BE			48° 46.600	123° 03.914	109		-		PUB	☐☐	Depth Rapidly decreasing
			15:46	BO			° 46.612	° 03.883		89	-			☐☐	
			15:47	EN			° 46.624	° 03.857			-			☐☐	
109	SOG109	13	17:28	BE			48° 51.370	123° 08.933	156		-		PUB	☐☐	B-5
			17:31	BO			° 51.386	° 08.965		152	-			☐☐	
			17:33	EN			° 51.408	° 08.994			-			☐☐	
110	SOG110	13	18:39	BE	CTD		48° 56.719	123° 19.924	196		-		CM CO	☐☐	
			18:42	BO			° 56.707	° 19.992		195	-			☐☐	
			18:45	EN			° 56.700	° 20.068			-			☐☐	
			:				° .	° .			-			☐☐	

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WaterProperties.ca
Version: 20 April 2016

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Ocean Sciences Division, Institute of Ocean Sciences

Month October | **Year** 2021 | **Vessel** Vector | **Cruise ID** 2021-018

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/Fl Cleaned	Comments
111	SOG 111	13	19:42	BE	CTD		49° 02.366	123° 27.286	330		-		PUB	☐☐	
			19:49	BO			°02.360	°27.400		328	-			☐☐	
			19:54	EN			°02.384	°27.469			-			☐☐	
112	SOGN_star12	13	20:25	BE	CTD		49° 05.926	123° 29.808	349		-		CM CO	☐☐	
			20:33	BO			° 05.962	° 29.963		347	-			☐☐	
			20:38	EN			° 05.976	° 30.049			-			☐☐	
113	SOGN_star113	13	22:04	BE	CTD		49° 13.724	123° 18.320	130		-		CM	☐☐	
			22:07	BO			° 13.696	° 18.328		127	-			☐☐	
			22:09	EN			° 13.660	° 18.320			-			☐☐	
114	SOGN_star114	13	22:33	BE	CTD		49° 11.542	123° 18.743	123		-		CM	☐☐	
			22:35	BO			° 11.538	° 18.768		125	-			☐☐	
			22:37	EN			° 11.534	° 18.779			-			☐☐	
115	SOGN_star115	13	23:46	BE	CTD		49° 11.662	123° 33.527	353		-		CM CO	☐☐	
			23:52	BO			° 11.746	° 33.580		353	-			☐☐	
			23:58	EN			° 11.842	° 33.595			-			☐☐	
116	SOGN_star116	14	00:44	BE	CTD		49° 17.417	123° 29.382	173		-			☐☐	
			00:48	BO			° 17.431	° 29.357		165	-			☐☐	
			00:50	EN			° 17.437	° 29.335			-			☐☐	
			:				° .	° .			-			☐☐	

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

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

Notes: _____

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month October **Year** 2021 **Vessel** Vector **Cruise ID**

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/Fl Cleaned	Comments
117	SOGN-Star 117	14	02:05	BE	CTD		49 °9.988	123 °18.906	123		-		DC	☐☐	
			02:06	BO			°9.983	°18.901		115	-			☐☐	
			02:08	EN			°9.974	°18.901			-			☐☐	
118	SOGN Star 118	14	03:14	BE	CTD		49 °18.805	123 °20.790	182		-		DC	☐☐	
			03:17	BO			°18.894	°20.821		174	-			☐☐	
			03:21	EN			°18.857	°20.021			-			☐☐	
119	SOGN Star 119	14	05:07	BE	CTD		49 °4.067	123 21.050	195		-		DC	☐☐	
			05:11	BO			°4.025	°21.114		189	-			☐☐	
			05:14	EN			°3.968	°21.192			-			☐☐	
120	SOGS Star 120	14	05:33	BE	CTD		49 °4.382	123 °24.366	272		-		DC	☐☐	
			05:39	BO			°4.529	°24.626		262	-			☐☐	
			05:46	EN			°4.625	°24.906			-			☐☐	
121	SOGS Star 121	14	06:49	BE	CTD		48°56.074	123° 23.989	125		-		DC	☐☐	
			06:51	BO			°56.076	°23.966		125	-			☐☐	
			06:53	EN			°56.081	°23.942			-			☐☐	
122	SOGS Star 122	14	07:53	BE	CTD		49 °2.579	123 °30.209	304		-		DC	☐☐	
			07:56	BO			°2.639	°30.276		298	-			☐☐	
			08:01	EN			°2.657	°30.277			-			☐☐	
			:				° .	° .			-			☐☐	

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