

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2022-013

DATE:

VESSEL:

PROJECT(S):

From:

To:

CHANDLER

O'Neill

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

WaterProperties.ca

Captain: Dale Lynch First Officer: Thomas Barfai
Second Officer: Rachel Winchester Third Officer: _____
Fishing Master: _____ Chief Engineer: Robin Williams

Mission Participants / Agencies:

DFD

**** Chief Scientist to tape Scientific Personnel section of their cruise plan here ****

This is accessed from your WaterProperties.ca Dashboard or from here:
<https://www.waterproperties.ca/requests/cruiseplanview.php?cruiseid=YYYY-NNN>

Scott Rose

Mark Belton

Hagleigh Shannon

Kelly Young

Robyn Taves

~~Chief~~ Scientists Caitlin O'Neill

**** 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: New Vector Think Center

Data acquisition program: Seasave

CTD deck unit make: SBE model: 11+ serial number: 0424

Primary CTD

Make: SBE model: 9 serial number: 550

Primary temperature serial number: 2106

Primary conductivity serial number: 2280

Secondary temperature serial number: 2663

Secondary conductivity serial number: 2754

Transmissometer: _____ Model: _____ serial: 1185DR 10

Transmissometer: _____ Model: _____ serial: 4+

Fluorometer: Model _____ Cable gain: 10X serial: 3949 P S or NO pump?

Fluorometer: Model _____ Cable gain: _____ serial: _____ P, S or NO pump?

Oxygen sensor: SBE Model: 43 serial: 1119 P S or NO pump?

PAR sensor: Biospherical Model: DSP200L45 serial: 4565 Surface PAR? Y N

Other sensors: Valport altimeter serial: 73171 P, S or NO pump?

Other sensors: SBE 18 pt serial: 0691 P, S or NO pump?

Other sensors: SBE 5T pump serial: 4547 P S or NO pump?

Other sensors: " serial: 5183 P S or NO pump?

L15ST 200X 2203

Secondary CTD

Make: _____ model: _____ serial number: _____

Primary temperature serial number: _____

Primary conductivity serial number: _____

Secondary temperature serial number: _____

Secondary conductivity serial number: _____

Transmissometer: _____ Model: _____ serial: _____

Transmissometer: _____ Model: _____ serial: _____

Fluorometer: Model _____ Cable gain: _____ serial: _____ P, S or NO pump?

Fluorometer: Model _____ Cable gain: _____ serial: _____ P, S or NO pump?

Oxygen sensor: _____ Model: _____ serial: _____ P, S or NO pump?

PAR sensor: _____ Model: _____ serial: _____ Surface PAR? Y N

Other sensors: _____ serial: _____ P, S or NO pump?

Other sensors: _____ serial: _____ P, S or NO pump?

Other sensors: _____ serial: _____ P, S or NO pump?

Other sensors: _____ serial: _____ 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-rossette casts (typical on small launches).

Additional Comments:

Scientific Equipment Used During Cruise

This sheet allows you to enter all of the equipment used while on board. Please use the separate CTD sheet for entry for SBE 9/16/19/25.

Other CTD units:

RBR Serial Number: Sensors:

Others:

Plankton Nets:

Bongo/SCOR #1

Frame Size: cm

Mesh: μm

Flowmeter:

Bongo/SCOR #2

Frame Size: cm

Mesh: μm

Flowmeter:

Frame Size: cm

Mesh: μm

Flowmeter:

Frame Size: cm

Mesh: μm

Flowmeter:

Multinet ☐ BIONESS ☐ Neuston ☐ Others:

Trawl Gear:

Midwater Trawls: SOG ☐ Highseas ☐ Pelagic ☐ Other:

Bottom Trawls: Atlantic Western IIA ☐ Yankee 36 Hard & Soft Bottom ☐ Other:

American Shrimp Trawl ☐

Notes:

Trawl Doors: USA Jet ☐ Tyburon ☐

Sounders : Wesmar 380 ☐ Others:

Acoustics:

Echosounder #1 Frequencies (KHz): 12 ☐ 18 ☐ 38 ☐ 70 ☐ 120 ☐ 200 ☐

Others:

Echosounder #2 Frequencies (KHz): 12 ☐ 18 ☐ 38 ☐ 70 ☐ 120 ☐ 200 ☐

Others:

Software & Notes:

Other Gear in Operation:

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month APRIL				Year 2022			Vessel VECTOR				Cruise ID 2022-013				
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	SI	02	01:31	BE	ROS	US	48° 37.083	123° 29.73	182		1 - 13	13	SR	☒	Pressure seems
			01:33	BO			° 39.103	° 29.927		174	-			☐	Low
			:	EN			°	°			-			☐	
2	59	02	04:13	BE	NET	/	48° 37.827	123° 14.617	234		-	/	CO	☐	
			04:22	BO			° 37.716	° 14.591		226	-			☐	
			04:28	EN			° 37.682	° 14.605			-			☐	
3	59	02	04:45	BE	ROS	US	48° 37.688	123° 14.572	231		15 - 29	15	CO	☒	pressure seems normal
			04:49	BO			° 37.624	° 14.561		224	-			☐	DIC sample 168 taken before 16A
			05:17	EN			° 37.272	° 14.573			-			☐	
4	60	02	06:06	BE	ROS	/	48° 33.852	123° 12.781	293		-		CO	☒	
			06:12	BO			° 33.787	° 12.736		288	-			☐	
			06:18	EN			° 33.716	° 12.703			-			☐	
5	102	02	16:36	BE	ROS	US	48° 29.979	124° 44.536	260		30 - 44	15	SR	☒	low swell →
			16:43	BO			° 30.886	° 44.747			-			☐	
			17:13	EN			48° 30.587	124° 45.701			-			☐	
6	103	02	18:11	BE	ROS	-	48° 32.848	124° 42.959	129		-	-	KY	☐	
			18:13	BO			48° 32.875	124° 43.044		126	-			☐	
			18:16	EN			48° 32.903	124° 43.121			-			☐	
			:				°	°			-			☐	
Event Type: LOOR = Sea Water Loss Bottle Firing Method: Firing Code:															

This page is for any notes or observations

→ can't deploy @ stn 101 (too much swell). Cast cancelled

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 2 of 16

Month <u>APRIL</u>			Year <u>2022</u>			Vessel <u>VECTOR</u>			Cruise ID <u>2022-013</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							
7	76	02	19:53	BE	ROS	—	48° 31.619	124° 29.921	76		-		CO	☒ ☐	
			19:54	BO			° 31.364	° 29.939		69	-			☐ ☐	
			19:56	EN			° 31.649	° 29.959			-			☐ ☐	
8	75	02	20:39	BE	ROS	US	48° 28.376	124° 32.724	220		-		CO	☒ ☐	descend @ 0.5 m/s to
			20:45	BO			° 28.438	° 32.794		211	45-58	14		☐ ☐	reduce shock backing a
			21:11	EN			° 28.667	° 33.001	191		-			☐ ☐	likely hit bottom of
9	74	02	22:02	BE	ROS	—	48° 25.160	124° 35.527	191		-		CO	☒ ☐	of shells.
			22:06	BO			° 25.187	° 35.474		189	-			☐ ☐	
			22:10	EN			° 25.213	° 35.390			-			☐ ☐	
10	73	03	00:39	BE	ROS	—	48° 14.995	124° 06.678	162		-		CO	☒ ☐	
			00:42	BO			° 15.000	° 06.674		158	-			☐ ☐	
			00:45	EN			° 15.008	° 06.661			-			☐ ☐	
11	72	03	01:19	BE	NET	US	48° 18.564	124° 03.997	189		-		CO	☐ ☐	
			01:25	BO			° 18.597	° 03.969		181	-			☐ ☐	
			01:29	EN			° 18.603	° 03.940			-			☐ ☐	
12	72	03	01:41	BE	ROS	US	48° 18.592	124° 04.038	188		59-72	14	CO	☒ ☐	
			01:45	BO			° 18.610	° 04.034		183	-			☐ ☐	
			02:06	EN			° 18.665	° 04.016			-			☐ ☐	
			:				°	°			-			☐ ☐	

Event Type:

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

LOOP = Sea Water Loop

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

Bottle Firing Method:

US = Up / Stop (default)
UN = Up / No stop
DN = Down / No stop

Notes:

Time Code:

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

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

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

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 17 Feb 2020

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 3 of 16

Month <u>APRIL</u>				Year <u>2022</u>			Vessel <u>VECTOR</u>				Cruise ID <u>2022-013</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							
13	71	03	02:50	BE	ROS	/	48°22.164	123°59.425	111		-		CO	☒	
			02:52	BO			°22.176	°59.437		106	-			☐	
			02:54	EN			°22.188	°59.477			-			☐	
14	70	03	04:19	BE	ROS	/	48°19.117	123°43.158	152		-		CO	☒	
			04:22	BO			°19.168	°43.147		149	-			☐	
			04:25	EN			°19.172	°43.120			-			☐	
15	69	03	05:01	BE	ROS	US	48°15.612	123°43.192	182		73-84	12	CO	☒	
			05:04	BO			°15.612	°43.216		174	-			☐	
			05:24	EN			°15.612	°43.253			-			☐	
16	68	03	06:15	BE	ROS	/	48°12.230	123°43.027	141		-		CO	☒	
			06:18	BO			°12.228	°43.048		134	-			☐	
			06:21	EN			°12.211	°43.051			-			☐	
17	105	03	08:24	BE	ROS	/	48°11.002	123°19.069	88		/	/	SR	☒	
			08:25	BO			°10.993	°19.086		83	-			☐	
			08:27	EN			°10.985	°19.088			-			☐	
18	ADCP		08:58	BE	ROS	US	48°14.052	123°18.100	120		85-94	10	SR	☒	
			09:01	BO			°14.052	°18.102		115	-			☐	
			09:18	EN			°14.006	°18.085			-			☐	
			:				°	°			-			☐	

Bottle Firing Method:

Time Code:

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

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month April			Year 2022			Vessel Vector			Cruise ID 2022-013						
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
19	104	03	10:03	BE	ROS	/	48° 20.000	123° 17.965	86		/	/	SR	☒	
			10:05	BO			° 20.012	° 17.969		81	-			☐	
			10:07	EN			° 20.026	° 17.968			-			☐	
20	67	03	10:32	BE	ROS	/	48° 22.950	123° 17.782	86		/	/	SR	☒	
			10:34	BO			48° 22.966	° 17.730		81	-			☐	
			10:35	EN			° 22.994	° 17.689			-			☐	
21	66	03	11:08	BE	ROS	/	48° 19.344	123° 14.080	103		/	/	SR	☒	
			11:10	BO			° 19.344	° 14.075		98	-			☐	
			11:12	EN			° 19.346	° 14.059			-			☐	
22	65	03	11:47	BE	ROS	us	48° 15.929	123° 9.736	126		95-104	10	SR	☒	
			11:50	BO			° 15.949	° 9.743		121	-			☐	
			12:07	EN			° 15.962	° 9.692			-			☐	
23	64	03	12:39	BE	ROS	/	48° 12.845	123° 5.803	110		/	/	SR	☒	
			12:41	BO			° 12.846	° 5.788		104	-			☐	
			12:43	EN			° 12.850	° 5.777			-			☐	
24	63	03	13:50	BE	ROS	us	48° 14.458	122° 58.658	164		105-108	4	SR	☒	
			13:53	BO			° 14.464	° 58.651			-			☐	
			14:02	EN			° 14.476	° 58.698			-			☐	
			:				°	°			-			☐	

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month April			Year 2022			Vessel Vector			Cruise ID 2022-013						
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
25	63	03	14:20	BE	NET		48° 14.382	122° 58.692	159		/	/	KY	☐ ☐	
			14:27	BO			° 14.460	° .697		150	-			☐ ☐	
			14:30	EN			° 14.526	° .689			-			☐ ☐	
26	62	03	15:38	BE	ROS	US	48° 22.819	123° 2.670	149		109-119	11	SR	☐ ☐	
			15:41	BO			° 22.831	° 2.657		144	-			☐ ☐	
			15:58	EN			° 22.820	° 2.653			-			☐ ☐	
27	61	03	16:56	BE	ROS	/	48° 29.155	123° 9.298	286		/	/	SR	☒ ☐	
			17:01	BO			° 29.048	° 9.227		281	-			☐ ☐	
			:	EN			° .	° 9.			-			☐ ☐	
28	58	03	19:14	BE	ROS	/	48° 42.930	123° 14.466	333		/	/	CO	☒ ☐	
			19:20	BO			° 42.871	° 14.705		329	-			☐ ☐	
			19:27	EN			° 42.810	° 14.864			-			☐ ☐	
29	57	03	20:14	BE	ROS	/	48° 43.920	123° 08.320	166		/	/	CO	☒ ☐	
			20:17	BO			° 43.939	° 08.404		162	-			☐ ☐	
			20:20	EN			° 43.891	° 08.485			-			☐ ☐	
30	56	03	21:04	BE	ROS	US	48° 46.400	123° 01.598	211		120-133	14	CO	☒ ☐	
			21:08	BO			° 46.392	° 01.565		207	-			☐ ☐	
			21:32	EN			° 46.393	° 01.463			-			☐ ☐	
			:				° .	° .			-			☐ ☐	

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

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

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

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

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

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 17 Feb 2020

DAILY SCIENCE LOG

Month APRIL			Year 2022			Vessel VECTOR			Cruise ID 2022-013						
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
31	47	03	22:22	BE	ROS	/	48°49.315	123°06.214	186		/	/	CW	☒	
			22:25	BO			°49.310	°06.229		179	-			☐	
			22:29	EN			°49.319	°06.256			-			☐	
32	48	03	23:04	BE	ROS	/	48°51.670	123°03.293	229		/	/	CW	☒	
			23:08	BO			°51.665	°03.358		223	-			☐	
			23:12	EN			°51.664	°03.431			-			☐	
33	49	03	23:52	BE	ROS	/	48°55.019	122°59.647	133		/	/	CW	☒	
			23:55	BO			°55.027	°59.647		126	-			☐	
			23:57	EN			°55.050	°59.660			-			☐	
34	50	04	00:36	BE	ROS	/	48°57.725	122°56.095	28		/	/	CW	☒	
			00:37	BO			°57.728	°56.102		23	-			☐	
			00:37	EN			°57.731	°56.106			-			☐	
35	44	04	01:33	BE	ROS	/	48°56.814	123°06.048	123		/	/	CW	☐	
			01:35	BO			°56.827	°06.058		116	-			☐	
			01:38	EN			°56.834	°06.059			-			☐	
36	45	04	02:08	BE	ROS	/	48°53.904	123°08.413	130		/	/	CW	☐	
			02:11	BO			°53.904	°08.413		126	-			☐	
			02:14	EN			°53.904	°08.423			-			☐	
			:				°	°			-			☐	

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month APRIL				Year 2022			Vessel VECTOR				Cruise ID 2022-013				
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
37	46	04	02:39	BE	NET	/	48° 51.420	123° 10.823	178		/	/	CS	☐ ☐	
			02:45	BO			° 51.380	° 10.875		173	-			☐ ☐	
			02:48	EN			° 51.391	° 10.965			-			☐ ☐	
38	46	04	03:02	BE	ROS	US	48° 51.402	123° 10.832	183		134-145	12	CS	☒ ☐	
			03:05	BO			° 51.398	° 10.847		176	-			☐ ☐	
			03:28	EN			° 51.389	° 10.858			-			☐ ☐	
39	109	04	04:32	BE	ROS	/	48° 56.521	123° 21.989	197		/	/	CS	☒ ☐	
			04:37	BO			° 56.532	° 21.998		191	-			☐ ☐	
			04:40	EN			° 56.542	° 21.983			-			☐ ☐	
40	43	04	05:30	BE	ROS	/	49° 00.192	123° 30.131	198		/	/	CS	☒ ☐	
			05:33	BO			° 00.191	° 30.104		191	-			☐ ☐	
			05:37	EN			° 00.196	° 30.076			-			☐ ☐	
41	42	04	06:06	BE	NET	/	49° 01.780	123° 26.311	324		/	/	CS	☐ ☐	
			06:17	BO			° 01.721	° 26.243		319	-			☐ ☐	
			06:23	EN			° 01.718	° 26.162			-			☐ ☐	
42	42	04	06:38	BE	ROS	US	49° 01.790	123° 26.198	322		146-162	17	CS	☒ ☐	
			06:44	BO			° 01.739	° 26.154		315	-			☐ ☐	
			07:10	EN			° 01.732	° 26.140			-			☐ ☐	
			:				°	°			-			☐ ☐	

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month April				Year 2022			Vessel Vector				Cruise ID 2022-013					
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	
43	41	04	12:51	BE	ROS	/	49° 3.265	123° 22.100	233		-	/	KY	☒	spike in fluor	
			12:56	BO			49° 3.248	123° 22.193		231	-			☐	NOT ARCHIVED?	
			13:00	EN			49° 3.233	123° 22.202			-			☐		
44	37	04	14:19	BE	ROS	/	49° 13.654	123° 20.548	212		/	/	SR	☒		
			14:23	BO			° 13.637	° 20.766		210	-			☐		
			14:26	EN			° 13.609	° 20.760			-			☐		
45	38	04	14:57	BE	NET	/	49° 12.015	123° 26.322	308		/	/	KY	☐		
			15:11	BO			° 11.970	° 26.533			-			☐		
			15:16	EN			° 11.985	° 26.546			-			☐		
46	38	04	15:31	BE	ROS	/	49° 11.928	123° 26.579	312		/	/	SR	☒		
			15:37	BO			° 11.869	° 26.657		307	-			☐		
			15:43	EN			° 11.818	123° 26.705			-			☐		
47	39	04	16:20	BE	ROS	US	49° 9.690	123° 33.065	362		163-179	17	SR	☒		
			16:29	BO			° 9.655	° 33.101		377	-			☐		
			16:59	EN			° 9.788	° 33.161			-			☐		
48	40	04	17:36	BE	ROS	/	49° 8.570	123° 36.772	159		/	/	SR	☒		
			17:39	BO			° 8.540	° 36.780		157	-			☐		
			17:42	EN			° 8.533	° 36.802			-			☐		
			:				°	°			-			☐		

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

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

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

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

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

Notes:

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 17 Feb 2020

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month April				Year 2022			Vessel Vector				Cruise ID 2022-013				
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
49	GEO1	04	18:50	BE	ROS	US	49°14.952	123°44.938	405		180-187	8	CS	☒	
			18:57	BO			°14.914	°44.969		395	-			☐	
			19:15	EN			°14.945	°44.989			-			☐	
50	GEO1	04	19:37	BE	NET	/	49°14.981	123°44.993	406		/	/	CS	☐	
			19:50	BO			°14.885	°44.977		401	-			☐	
			19:58	EN			°14.828	°45.001			-			☐	
51	26	04	20:32	BE	ROS	/	49°14.316	123°50.837	257		/	/	CS	☒	
			20:37	BO			°14.306	°50.833		249	-			☐	
			20:42	EN			°14.282	°50.850			-			☐	
52	265	04	21:07	BE	ROS	/	49°16.804	123°49.482	413		/	/	CS	☒	
			21:15	BO			°16.798	°49.480		404	-			☐	
			21:22	EN			°16.795	°49.486			-			☐	
53	27	04	21:48	BE	ROS	US	49°19.175	123°48.103	349		188-203	16	CS	☒	
			21:54	BO			°19.162	°48.190		340	-			☐	
			22:20	EN			°19.091	°48.108			-			☐	
54	275	04	23:00	BE	ROS	/	49°21.824	123°46.609	107		/	/	CS	☒	
			23:02	BO			°21.823	°46.619		104	-			☐	
			23:05	EN			°21.821	°46.619			-			☐	
			:				°	°			-			☐	

Event Type:

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

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

Bottle Firing Method:

US = Up / Stop (default)
UN = Up / No stop
DN = Down / No stop

Time Code:

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

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

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

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 17 Feb 2020

Notes:

DAILY SCIENCE LOG

Month APRIL			Year 2022			Vessel Vector			Cruise ID 2022-013						
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							
55	28	04	23:30	BE	ROS	/	49°24.118	123°45.366	135		-	/	CO	☒	*did not archive
			23:33	BO			°24.113	°45.356		128	-			☐	
			23:36	EN			°24.108	°45.356			-			☐	
56	28	04	23:43	BE	NET	/	49°24.115	123°45.349	135		-	/	CO	☐	
			23:46	BO			°24.142	°45.295		130	-			☐	
			23:49	EN			°24.191	°45.266			-			☐	
57	24	05	01:24	BE	NET	/	49°30.330	124°05.862	428		-	/	CO	☐	
			01:38	BO			°30.735	°05.836		423	-			☐	
			01:46	EN			°30.797	°05.811			-			☐	
58	24	05	02:06	BE	ROS	US	49°30.328	124°05.982	428		204-207	4	CO	☒	
			02:14	BO			°30.334	°05.977		422	-			☐	
			02:29	EN			°30.324	°05.976			-			☐	
59	25	05	02:59	BE	ROS	/	49°27.778	124°07.488	286		-	/	CO	☒	
			03:04	BO			°27.798	°07.486		279	-			☐	
			03:10	EN			°27.802	°07.489			-			☐	
60	2	05	03:43	BE	ROS	US	49°24.115	124°09.269	281		208-222	15	CO	☒	
			03:48	BO			°24.070	°09.283		274	-			☐	
			04:13	EN			°23.983	°09.390			-			☐	
			:				°	°			-			☐	

DAILY SCIENCE LOG

Month			Year			Vessel			Cruise ID						
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
61	CPF1	05	05:02	BE	ROS	US	49°22.044	124°04.966	250		223-226	4	CO	☒ ☒	bottle 24 necks long and short neck.
			05:06	BO			°22.052	°04.972		242	-			☐ ☐	Mark did this
			05:17	EN			°22.044	°04.992			-			☐ ☐	
62	CPF1	05	05:24	BE	NET	/	49°22.051	124°04.980	247		/	/	MB	☐ ☐	
			05:32	BO			°22.059	°04.984		242	-			☐ ☐	
			05:36	EN			°22.056	°04.989			-			☐ ☐	
63	1	05	06:29	BE	ROS	/	49°20.332	124°11.994	251		/	/	CO	☐ ☐	
			06:34	BO			°20.330	°12.005		246	-			☐ ☐	
			06:39	EN			°20.332	°12.012			-			☐ ☐	
64	4	05	07:38	BE	ROS	/	49°24.504	124°22.078	346		/	/	SR	☒ ☐	
			07:44	BO			°24.449	°22.051		341	-			☐ ☐	
			07:51	EN			°24.470	°22.051			-			☐ ☐	
65	3	05	08:14	BE	ROS	US	49°26.610	124°20.125	310		227-242	16	SR	☒ ☐	
			08:22	BO			°26.512	°20.126			-			☐ ☐	
			08:50	EN			°26.501	°20.066			-			☐ ☐	
66	CPF2	05	09:36	BE	NET	/	49°28.072	124°29.989	320		/	/	HS	☐ ☐	
			09:48	BO			49°27.993	124°29.986		313	-			☐ ☐	
			09:54	EN			49°27.963	124°30.028			-			☐ ☐	
			:				°	°			-			☐ ☐	

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month April			Year 2022			Vessel Vector			Cruise ID 2022-013						
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
67	CPF2	05	10:05	BE	ROS	/	49° 27.900	124° 30.112	330		/	/	SR	☒	
			10:12	BO			° 27.845	° 30.170		325	-			☐	
			10:18	EN			° 27.821	° 30.250			-			☐	
68	6	05	10:49	BE	ROS	US	49° 30.493	124° 27.774	194		243-255	13	HS	☒	
			10:51	BO			° 30.492	° 27.788		187	-			☐	
			11:13	EN			° 30.439	° 27.815			-			☐	
69	7	05	11:48	BE	ROS	/	49° 34.411	124° 24.168	352		/	/	SR	☒	
			11:54	BO			° 34.483	° 24.221		348	-			☐	
			12:01	EN			° 34.512	° 24.359			-			☐	
70	8	05	12:55	BE	ROS	/	49° 39.275	124° 32.995	339		/	/	SR	☒	
			13:01	BO			° 39.278	° 32.990		334	-			☐	
			13:08	EN			° 39.264	° 32.959			-			☐	
71	9	05	13:51	BE	ROS	US	49° 35.507	124° 38.305	170		256-267	12	SR	☒	
			13:57	BO			° 35.465	° 38.274			-			☐	
			14:15	EN			° 35.477	° 38.263			-			☐	
72	10	05	15:10	BE	ROS	/	49° 40.681	124° 47.281	98		/	/	SR	☒	DAR had sea -
			15:12	BO			° 40.679	° 47.333		89	-			☐	weed on it when
			15:14	EN			° 40.687	° 47.364			-			☐	it got back on
			:				° 1	°			-			☐	deck.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month April				Year 2022			Vessel Vector			Cruise ID 2022-013					
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							
73	11	05	15:42	BE	ROS	/	49° 42.391	124° 43.453	298		/	/	SR	☒	
			15:47	BO			° 42.389	° 43.429		297	-			☐	
			15:53	EN			° 42.386	° 43.400			-			☐	
74	12	05	16:11	BE	NET	/	49° 43.652	124° 40.814	359		/	/	KY	☐	
			16:24	BO			° 43.652	° 40.814		350	-			☐	
			16:28	EN			° 43.659	° 40.900			-			☐	
75	12	05	16:42	BE	ROS	US	49° 43.664	124° 40.862	357		268-284	17	SR	☒	
			16:49	BO			° 43.670	° 40.832		352	-			☐	
			17:19	EN			° 43.648	° 40.838			-			☐	
76	QU39	05	19:58	BE	NET	/	50° 01.185	125° 05.967	274		/	/	CO	☐	
			20:07	BO			° 01.834	° 06.050		269	-			☐	
			20:12	EN			° 01.835	° 06.086			-			☐	
77	QU39	05	20:26	BE	ROS	US	50° 01.817	125° 05.964	274		301-304	4	CO	☒	
			20:31	BO			° 01.820	° 05.947		268	-			☐	
			20:41	EN			° 01.832	° 05.939			-			☐	
78	21	05	21:50	BE	ROS	/	50° 01.921	125° 13.428	81		/	/	CO	☒	
			21:51	BO			° 01.901	° 13.400		79	-			☐	
			21:53	EN			° 01.889	° 13.387			-			☐	
			:				°	°			-			☐	

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month APRIL			Year 2022			Vessel VECTOR			Cruise ID 2022-013						
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
79	16	05	22:33	BE	ROS	US	49°57.676	125°08.873	154		305-315	11	CS	☒	
			22:36	BO			°57.673	°08.870		149	-			☐	
			22:56	EN			°57.698	°08.824			-			☐	
80	17	05	23:25	BE	ROS	/	49°58.800	125°04.316	265		/	/	CS	☒	
			23:30	BO			°58.805	°04.310		258	-			☐	
			23:35	EN			°58.808	°04.304			-			☐	
81	15	06	00:34	BE	ROS	/	49°51.595	125°01.573	126		/	/	CS	☒	
			00:36	BO			°51.590	°01.571		122	-			☐	
			00:39	EN			°51.598	°01.573			-			☐	
82	14	06	00:57	BE	NET	/	49°52.978	124°59.598	315		/	/	CS	☐	
			01:08	BO			°52.997	°59.616		310	-			☐	
			01:13	EN			°53.000	°59.620			-			☐	
83	14	06	01:23	BE	ROS	US	49°53.020	124°59.634	316		285-300	16	CS	☒	
			01:29	BO			°53.022	°59.636		310	-			☐	
84	13	06	01:54	EN			°53.021	°59.686			-			☐	
84	13	06	02:34	BE	ROS	/	49°55.309	124°55.235	235		/	/	CS	☒	
			02:39	BO			°55.313	°55.238		228	-			☐	
			02:43	EN			°55.322	°55.231			-			☐	
			:				°	°			-			☐	

DAILY SCIENCE LOG

Month APRIL				Year 2022			Vessel VECTOR			Cruise ID 2022-013					
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
85	20	06	04:44	BE	ROS	/	49°47.184	124°32.338	316		/	/	W	☒ ☐	
			04:50	BO			°47.174	°32.300		311	-			☐ ☐	
			04:56	EN			°47.170	°32.293			-			☐ ☐	
86	22	06	06:18	BE	NET	/	49°40.185	124°16.365	356		/	/	W	☐ ☐	
			06:29	BO			°40.196	°16.315		351	-			☐ ☐	
			06:35	EN			°40.200	°16.304			-			☐ ☐	
87	22	06	06:45	BE	ROS	US	49°40.199	124°16.302	356		316-320	5	W	☒ ☐	
			06:52	BO			°40.196	°16.298		349	-			☐ ☐	
			07:04	EN			°40.197	°16.255			-			☐ ☐	
88	28	06	09:45	BE	ROS	/	49°24.097	123°45.264	141		/	/	SR	☒ ☐	
			09:48	BO			°24.088	°45.311		131	-			☐ ☐	
			09:51	EN			°24.095	°45.338			-			☐ ☐	
89	28	06	09:57	BE	NET	/	49°24.108	123°45.372	141		-		KY	☐ ☐	
			10:01	BO			°24.075	°45.336		131	-			☐ ☐	
			10:04	EN			°24.081	°45.305			-			☐ ☐	
90	41	06	12:44	BE	ROS	/	49°3.288	123°22.379	247		/	/	SR	☐ ☐	
			12:49	BO			°3.278	°22.392		242	-			☐ ☐	
			12:54	EN			°3.296	°22.447			-			☐ ☐	
			:				°	°			-			☐ ☐	

DAILY SCIENCE LOG

Month April				Year 2022			Vessel Vector			Cruise ID 2022-013					
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
91	GI-01	06	15:06	BE	ROS	/	48° 45.824	123° 20.453	68		321-324	4	SR	☒	
			15:07	BO			° 45.829	° 20.424		64	-			☐	
			15:16	EN			° 45.787	° 20.338			-			☐	
92	GI-01	06	15:25	BE	NET	/	48° 45.769	123° 20.474	68		/	/	KY	☐	
			15:28	BO			° 45.776	° 20.507		58	-			☐	
			15:29	EN			° 45.782	° 20.516			-			☐	
93	SC-04	06	15:58	BE	NET	/	48° 43.533	123° 24.879	88		/	/	KY	☐	
			16:02	BO			° 43.519	° 24.862		78	-			☐	
			16:04	EN			° 43.529	° 24.866			-			☐	
94	SC-04		16:13	BE	ROS	US	48° 43.544	123° 24.805	81		325-328	4	SR	☒	
			16:15	BO			° 43.541	° 24.790		74	-			☐	
			16:22	EN			° 43.513	° 24.702			-			☐	
			:				° .	° .			-			☐	
			:				° .	° .			-			☐	
			:				° .	° .			-			☐	
			:				° .	° .			-			☐	
			:				° .	° .			-			☐	
			:				° .	° .			-			☐	
			:				° .	° .			-			☐	