

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2018-73

1 of 3

DATE:

JULY 5

From:

To:

JULY 29

VESSEL:

NORDIC PEARL

PROJECT(S):

IPEC

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

WaterProperties.ca

Captain: Nathan Dobie

First Officer: Don Dickens

Second Officer:

Third Officer: Alex Myers

Fishing Master:

Chief Engineer: Chris Oborski

Deck hand: Doug Mosdell

Mission Participants / Agencies:

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

1st Leg Scientific Personnel:

Chief Scientist: JACKIE KING

Name	Watch	Cabin	Name	Watch	Cabin
TYLER ZUBKOWSKI					
BEN SNOW					
CAM FRESHWATER					
COLIN NOVAK					
ERIKA NEILSEN					
HUGH MACLEAN					

2nd Leg Scientific Personnel:

Chief Scientist: Jennifer Boldt

Name	Watch	Cabin	Name	Watch	Cabin
JASMINE WIETZKE					
OLIVIA McMILLAN					
HILARI DENNIS-ROHM					
NICHOLAS KOMICK					
LINNER FLOSTRAND					

**** 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: ACER (1123)

Data acquisition program: Seaterm / Seasave V7

CTD deck unit make: _____ model: Seahid 25 serial number: 1123

Primary CTD

Make: SBG model: 25 serial number: 404

Primary temperature serial number: 2449

Primary conductivity serial number: 1764

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 WGT LABS Cable gain: _____ s/n: 4105 ☒ P, S or NO pump?

Oxygen sensor: SBC Model: _____ s/n: 07093 ☒ P, S or NO pump?

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

Other sensors: PH s/n: 0852 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: 1
Manufacturer: _____
Volume of bottles (litres): _____

Winches:

1. Make: _____ Model: _____ Serial #: _____ Used for: _____
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):

Not able to accurately measure speed of wire out/wire in

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):

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: _____ after cast: _____

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

Secondary Temp - Primary Temp: _____
(Average from the mixed region)

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

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: RBR concerto (on trawl net) - serial # 066043 Sensors: 2 sensors on net

Others:

RBR bongo (duet depth & temp) → serial # 82527

Plankton Nets:

Bongo #1 ☒ Frame Size: _____ cm Mesh: 236 μ m Flowmeter: 6069
Bongo #2 Frame Size: _____ cm Mesh: _____ μ m Flowmeter: _____
_____ Frame Size: _____ cm Mesh: _____ μ m Flowmeter: _____
_____ Frame Size: _____ cm Mesh: _____ μ m 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 ☒ 4.0

Sounders: Wesmar 380 ☐ Others: Scanner w/ Marport wing tip sensors (for leg 2)

Acoustics:

Echosounder #1 EK60 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:

- RBR concerto on net (temp, depth, salinity, dO₂)
- RBR duet on headrope & foot rope of trawl
- RBR on bongo (temp. & depth on 2nd leg, only temp. for 1st leg)
- _____

This page is for any notes or observations

depths given were taken from an instrument ~5 m below surface (on
on of the boat)

Month			July		Year		2018		Vessel		NORDIC PEARL		Cruise ID		2018-73	
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/Fl Cleaned	Comments	
1	11536	6	2:00	BE	TRAWL		50° 31.0	° .			-			☐ ☐	TRAWL	
2	11536	6	20:55	BE	CTD	0	50° 31.30	126° 34.74	110		-	1	H.M.	☐ ☐	CTD 25	
			21:00	BO			50° 31.30	126° 39.74		100				☐ ☐		
			21:10	CH			50° 31.30	126° 39.74			-			☐ ☐		
3	11536	6	:	BE	NET		50° 31.32	126° 39.72	110		-		H.M.	☐ ☐	BONGO	
			:	CH			50° 31.32	126° 39.72		100				☐ ☐		
			:				50° 31.32	126° 39.72			-			☐ ☐		
4		7	:	BE	TRAWL		° .	° .			-			☐ ☐		
5	11043	7	:	BE	TRAWL		° .	° .			-			☐ ☐		
6	11043	7	04:45	BE	CTD	1	51° 02.89	127° 51.70	150		-	1	H.M.	☐ ☐	CTD + NISKIN	
			04:49	BO			51° 02.89	127° 51.67		140	-			☐ ☐		
			04:53	CH			51° 02.89	127° 51.60			-			☐ ☐		
7	11043	7	05:02	BE	NET		51° 02.87	127° 51.60	150		-		H.M.	☐ ☐	BONGO	
			05:06	BO			51° 02.87	127° 51.57		140	-			☐ ☐		
			05:08	CH			51° 02.86	127° 51.54			-			☐ ☐		
8	H291.F	7	:	BE	TRAWL		° .	° .			-			☐ ☐		
9	11418.F		:	BE	TRAWL		° .	° .			-			☐ ☐		
			:				° .	° .			-			☐ ☐		
			:				° .	° .			-			☐ ☐		

Ocean Sciences Division, Institute of Ocean Sciences

DAILY SCIENCE LOG

Cruise ID 2018-73

Vessel NORDIC PEARL

Year 2018

Month		Station Name		Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trms/FI Cleaned	Comments
									Latitude	Longitude							
10	11418-F	7	19:53	BE	CTD	2	51° 09' . 26	127° 50' . 21	75						1	11:11	CTD + NISKIN
			19:55	BO			51° 09' . 25	127° 50' . 21	65								
			19:59	EN			51° 09' . 23	127° 50' . 21									
11	11410-F	7	20:09	BE	NET		51° 09' . 22	127° 50' . 20	76								BONGO
			20:14	BO			51° 09' . 22	127° 50' . 19									
			20:17	EN			51° 09' . 22	127° 50' . 19									
12	11418-F		:	BE	TRAWL												
13	11291-F	8	:	BE	TRAWL												CTD + NISKIN
14	11291-F	8	02:05	BE	CTD	3	51° 05' . 41	127° 59' . 78	135								
			02:07	BO			51° 05' . 41	127° 59' . 83				125					
			02:11	EN			51° 05' . 41	127° 59' . 85									
15	11291-F	8	02:15	BE	NET		51° 05' . 42	127° 59' . 93	135								BONGO
			02:19	BO			51° 05' . 42	127° 59' . 99				125					
			02:21	EN			51° 05' . 42	128° 00' . 02									
16	11043	8	:	BE	TRAWL												
17	10769-F	8	:	BE	TRAWL												
			:														
			:														
			:														
			:														

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

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

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

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

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

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

Notes:

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Month			Year			Vessel			Cruise ID			2018-23			
July			2018			NORDIC AGARL			2018-23						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/FI Cleaned	Comments
18	10769-F	8	16:48	BE	CTD	4	50° 58.55	129° 12.40	144	-	-	1	H.M.	☐	CTD + NUSKIM
			16:54	BO			50° 58.56	129° 12.38	-	135	-			☐	
			16:58	CM			50° 58.59	129° 12.37			-			☐	
19	10769-F	8	17:02	BE	NET		50° 58.61	129° 12.35	144		-		H.M.	☐	BONGO
			17:06	BO			50° 58.65	129° 12.32		135	-			☐	
			17:08	CM			50° 58.67	129° 12.30			-			☐	
20	11146 F	8	:	BE	TRAWL		° .	° .			-			☐	
21	11522-F	8	:	BE	TRAWL		° .	° .			-			☐	
22	11522 F	8	20:04	BE	CTD	5	51° 11.77	129° 03.46	147		-	1	H.M.	☐	CTD + NUSKIM
			20:07	BO			51° 11.76	129° 03.47		135	-			☐	
			20:10	CM			51° 11.77	129° 03.49			-			☐	
23	11522F	8	20:15	BE	NET		51° 11.79	129° 03.53	148		-		H.M.	☐	BONGO
			20:18	BO			51° 11.81	129° 03.57		135	-			☐	
			20:22	CM			51° 11.83	129° 03.63			-			☐	
24	11522F	8	:		TRAWL		° .	° .			-			☐	
25	11146 F		:		TRAWL		° .	° .			-			☐	
			:				° .	° .			-			☐	
			:				° .	° .			-			☐	
			:				° .	° .			-			☐	
			:				° .	° .			-			☐	

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

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

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

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

Notes: _____

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Month			Year		Vessel			Cruise ID		2018-73					
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/FI Cleaned	Comments	
26	11146-F	9	00:45	BE	CTD	6	51° 03' 88" 129° 08' 37"	142		-	1	H.M.	☐	CTD + NISKIN	
			00:48	BO			51° 03' 88" 129° 08' 39"		130	-			☐		
			00:52	EN			51° 03' 89" 129° 08' 41"			-			☐		
27	11146-F	9	00:54	BE	NET		51° 03' 90" 129° 08' 42"	142		-			☐	BOMBO	
			01:00	BO			51° 03' 93" 129° 08' 45"		130	-			☐		
			01:04	EN			51° 03' 93" 129° 08' 45"			-			☐		
28	10769-F	9	:	BE	TRAWL		° °			-			☐	TRAWL	
29	10404-F	9	:	BE	TRAWL		° °			-			☐		
30	10404-F	9	16:56	BE	CTD	7	50° 52' 27" 128° 38' 47"	84		-	1	H.M.	☐	CTD + NISKIN	
			16:57	BO			50° 52' 27" 128° 38' 46"		75	-			☐		
			17:01	EN			50° 52' 25" 128° 38' 45"			-			☐		
31	10404-F	9	17:03	BE	NET		50° 52' 23" 128° 38' 44"	84		-		H.M.	☐	BOMBO	
			17:08	BO			50° 52' 19" 128° 38' 41"		75	-			☐		
			17:09	EN			50° 52' 18" 128° 38' 40"			-			☐		
32	10781	9	:	BE	TRAWL		° °			-			☐		
33	10534-F	9	:	BE	TRAWL		° °			-			☐		
34	10534-F	9	20:04	BE	CTD	8	50° 53' 63" 126° 23' 28"	44		-	1	H.M.	☐	CTD + NISKIN	
			20:07	BO			50° 53' 66" 126° 23' 19"		35	-			☐		
			20:10	EN			50° 53' 67" 126° 23' 14"			-			☐		

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:

SCIENCE LOG

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JULY			Year 2018		Vessel NORDIC PEARL		Cruise ID 2018-73							
Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
0534-F	9	20:34	BE	NET		50° 53. 71	126° 22. 98			-		H.M.	☐	BONGO
		20:36	BO			50° 53. 73	126° 22. 91			-			☐	
		20:39	EN			50° 53. 75	126° 22. 82			-			☐	
2534 F		:		TRAWL		° . .	° . .			-			☐	
0781 F		:		TRAWL		° . .	° . .			-			☐	
0781-F		01:08	BE	CTD	9	50° 58. 53	128° 33. 71	61		-	1	H.M.	☐	CTD + NISKUM
		01:09	BO			50° 56. 50	128° 33. 72		50	-			☐	
		01:12	EN			50° 58. 48	128° 33. 75			-			☐	
2781-F		01:15	BE	NET		50° 56. 25	128° 33. 81	61		-		H.M.	☐	BONGO
		01:18	BO			50° 56. 26	128° 33. 82		50	-			☐	
		01:19	EN			50° 58. 24	128° 33. 82			-			☐	
10404		:	BE	TRAWL		° . .	° . .			-			☐	
9900 F		:	BE	TRAWL		° . .	° . .			-			☐	
9900 F		16:50	BE	CTD	10	50° 43. 53	128° 52. 91	152		-	1	H.M.	☐	CTD + NISKUM
		16:54	BO			50° 43. 55	128° 52. 97		140	-			☐	LONG FILE -
		16:57	EN			50° 43. 56	128° 52. 98			-			☐	FORGOT TO TURN OFF
1900 F		17:01	BE	NET		50° 43. 58	128° 52. 99	152		-		H.M.	☐	BONGO
		17:04	BO			50° 43. 60	128° 52. 99		140	-			☐	
		17:06	EN			50° 43. 61	128° 52. 99			-			☐	

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

Time Code:

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

LOOP = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
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xtile cast (no CTD)
 andalone CTD
 ID in Rosette
 sh Set

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

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Notes:

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Month			Year		Vessel			Cruise ID							
JULY			2018		NORDIC PEARL			2018-73							
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
44	9898-F	10	:	BE	TRAWL		°	°			-			☐	
45	10148-F	10	:	BG	TRAWL		°	°			-			☐	
46	10148-F	10	19:37	BE	CTD	11	50°48.00	128°58.77	105		-	1	H.M.	☐	CTD + MISTON
			19:38	BO			50°48.02	128°58.77		95	-			☐	
			19:41	EN			50°48.02	128°58.77			-			☐	
47	10148-F	10	19:46	BG	NET		50°48.17	128°58.67	105		-		H.M.	☐	BONGO
			19:48	BO			50°48.17	128°58.67		95	-			☐	
			19:49	EN			50°48.19	128°58.67			-			☐	
48	16148-F		:	BE	TRAWL		°	°			-			☐	
49	9898-F	11	:	BE	TRAWL		°	°			-			☐	
50	9898-F	11	00:08	BE	CTD	12	50°42.01	128°59.09	210		-	1	H.M.	☐	CTD + MISTON
			00:13	BO			50°42.02	128°59.04		200	-			☐	
			00:18	EN			50°42.05	128°58.96			-			☐	
51	9898-F	11	00:26	BG	NET		50°42.06	128°58.96	210		-		H.M.	☐	BONGO
			00:27	BO			50°42.11	128°58.85		200	-			☐	
			00:31	EN			50°42.13	128°58.78			-			☐	
52	9900-F		:	BE	TRAWL		°	°			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	
CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products															

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

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

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

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

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

Notes: =

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Month			Year		Vessel			Cruise ID						
JULY			2010		NORDIC PEARL			2010-73						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/FI Cleaned	Comments
53	9037-F	11	:	BE	TRAWL		° . ° .			-			☐	
54	9037-F	11	17:26	BE	CTD	13	50° 27' 62" 128° 11' 1720	84		-	1	H.M.	☐	CTD + NISKIN
			17:21	BO			50° 27' 58" 128° 11' 1721		75	-			☐	
			17:23	EM			50° 27' 57" 128° 11' 1723			-			☐	
55	9037-F	11	:	BE	NET		NO BONGO - TOO ROUGH			-		H.M.	☐	BONGO
56	8789-F	11	:	BO			° . ° .			-			☐	
			:	EM			° . ° .			-			☐	
55	8789	11	:	BE	TRAWL		° . ° .			-			☐	
56	8293	11	:	BE	TRAWL		° . ° .			-			☐	
57	8293	11	20:48	BE	CTD	14	50° 14' 01" 127° 52' 47"	83		-	1	H.M.	☐	CTD + NISKIN
			20:51	BO			50° 13' 46" 127° 52' 47"		70	-			☐	
			20:53	EM			50° 13' 45" 127° 52' 45"			-			☐	
58	8293	11	:	BE	TRAWL		° . ° .			-		H.M.	☐	BONGO
59	8789	11	:	BE	TRAWL		° . ° .			-			☐	
60	8789	11	:	BE	CTD		NO CTD			-	1	H.M.	☐	CTD + NISKIN
			:	BO			° . ° .			-			☐	
			:	EM			° . ° .			-			☐	
			:				° . ° .			-			☐	
61			:				° . ° .			-			☐	

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

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Version: 14 February 2013

Notes:

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			Year		Vessel			Cruise ID			2010-73			
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/Fls Cleaned	Comments
61	0709	11	:	BE	NET		° .			-		H.M.	□ □	BONGO
			:	BO			140. 14020.			-			□ □	
			:	EM			° .			-			□ □	
60	9037	12	:	BE	TRAWL		° .			-			□ □	
61	101 01	12	:	BE	TRAWL		° .			-			□ □	
62	101 01	12	17:55	BE	CTD	0	50° 28 . 50 127° 48 . 36	142		-	1	H.M.	□ □	CTD + NISKIN
			15:57	BO			50° 28 . 50 127° 48 . 37		130	-			□ □	
			18:01	EM			50° 28 . 51 127° 48 . 40			-			□ □	
63	101 01	12	18:04	BE	NET		50° 28 . 54 127° 48 . 41	130		-		H.M.	□ □	BONGO
			18:07	BO			50° 28 . 56 127° 48 . 41		120	-			□ □	
			18:09	EM			50° 28 . 58 127° 48 . 41			-			□ □	
64	101 02		:	BE	TRAWL		° .			-			□ □	
65	101 02		19:24	BE	CTD	1	50° 29 . 99 127° 42 . 26	118		-	1	H.M.	□ □	CTD + NISKIN
			19:26	BO			50° 30 . 01 127° 42 . 23		110	-			□ □	
			19:29	EM			50° 30 . 02 127° 42 . 21			-			□ □	
66	101 02		19:31	BE	NET		50° 30 . 02 127° 42 . 21	118		-		H.M.	□ □	BONGO
			19:34	BO			50° 30 . 03 127° 42 . 19		110	-			□ □	
			19:36	EM			50° 30 . 04 127° 42 . 18			-			□ □	
			:				° .			-			□ □	

Event Type: LOOP = Sea Water Loop BOT = Bottle cast (no CTD) MOR = Mooring CTD = Standalone CTD NET = Plankton Net Haul ROS = CTD in Rosette DRF = Drifter SET = Fish Set

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

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

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DAILY SCIENCE LOG

Cruise ID 2018-73

Month			Year		Vessel			Cruise ID						
JULY			2018		NORDIC			PEARL		2018-73				
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/FJ Cleaned	Comments
67	1V1 03	12	:	BE	TRAWL		50° 27.05 127° 31.39	194		-			☐	
68	1V1 03	12	21:19	BE	CTD	2	50° 27.04 127° 31.36		180	-	1	H.M.	☐	CTD + NULSTON
			21:22	BO			50° 27.02 127° 31.29			-			☐	
			21:26	EN			50° 27.01 127° 31.25	195		-		H.M.	☐	BONGO
69	1V1 03	12	21:28	BE	NET		50° 27.00 127° 31.26		180	-			☐	
			21:33	BO			50° 26.97 127° 31.14			-			☐	
			21:36	EN						-			☐	
70	1V1 04		:	BE	TRAWL					-			☐	
71	4202	14	:	BE	TRAWL					-	1	H.M.	☐	CTD + NULSTON
72	4202	14	16:56	BE	CTD	3	49° 00.76 126° 01.60	59		-			☐	
			16:57	BO			49° 00.77 126° 01.57		50	-			☐	
			16:58	EN			49° 00.79 126° 01.53			-			☐	
73	4202	14	17:01	BE	NET		49° 00.78 126° 01.45	52		-		H.M.	☐	BONGO
			17:03	BO			49° 00.79 126° 01.45		40	-			☐	
			17:04	EN			49° 00.78 126° 01.45			-			☐	
74	3954	14	:	BE	TRAWL					-			☐	
75	3832	14	:	BE	TRAWL					-			☐	
			:							-			☐	
			:							-			☐	

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Notes:

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month			Year		Vessel			Cruise ID		2010-73				
JULY			2010		NORDIC PEARL			ID						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/FI Cleaned	Comments
76	3832	14	19:50	BE	CTD	4	48° 53' . 31 125° 46' . 21	106		-	1	H.M.	☐	CTD + NUSKIN
			19:52	BO			48° 53' . 29 125° 46' . 17		95	-			☐	
			19:53	EN			48° 53' . 20 125° 46' . 10			-			☐	
77	3832	14	20:03	BE	NET		48° 53' . 55 125° 46' . 19	108		-		H.M.	☐	BONGO
			20:06	BO			48° 53' . 51 125° 46' . 11		100	-			☐	
			20:11	EN			48° 53' . 49 125° 46' . 03			-			☐	
78	3832		:	BE	TRAWL		° . .			-			☐	
79	3954	15	:	BE	TRAWL		° . .			-			☐	
80	3954	15	00:23	BE	CTD	5	48° 57' . 45 125° 57' . 56	53		-	1	H.M.	☐	CTD + NUSKIN
			00:25	BO			48° 57' . 44 125° 57' . 55		45	-			☐	
			00:27	EN			48° 57' . 43 125° 57' . 53			-			☐	
81	3954	15	00:30	BE	NET		48° 57' . 42 125° 57' . 51	54		-		H.M.	☐	BONGO
			00:31	BO			48° 57' . 42 125° 57' . 49		45	-			☐	
			00:32	EN			48° 57' . 41 125° 57' . 40			-			☐	
82	4202	15	:	BE	TRAWL		° . .			-			☐	
83	4444	15	:	BE	TRAWL		° . .			-			☐	
84	4444	15	16:58	BE	CTD	6	49° 05' . 68 126° 27' . 88	130		-	1	H.M.	☐	CTD + NUSKIN
			17:01	BO			49° 05' . 66 126° 27' . 85		120	-			☐	
			17:04	EN			49° 05' . 67 126° 27' . 79			-			☐	

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

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