DAILY SCIENCE LOG BOOK

MISSION NUMBER: 2018-73 3 of 3

DATE: From: JULY 6 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 Zubowski					
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-BOHM					
NICHOLAS KOMICK					
LINNEA FLOSTRAND					

**** 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: AEER

Data acquisition program: Seaterm / Seasave V7

CTD deck unit make: _____ model: Seabird 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 Wetlabs Cable gain: _____ s/n: 4185 (P), S or NO pump?

Fluorometer: Model _____ Cable gain: _____ s/n: _____ P, S or NO pump?

Oxygen sensor: SBE Model: _____ s/n: 87893 (P), S or NO pump?

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

Other sensors: PTT 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 (duct depth & temp) → serial # 82527

Plankton Nets:
Bongo #1 Frame Size: _____cm Mesh: 236 µm Flowmeter: 6069
Bongo #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 ☒ 4.0

Sounders : Wesmar 380 ☐ Others: Scanmar 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:

1. RBR concerto on net (temp, depth, salinity, dO_2)
2. RBR duet on headrope & foot rope of trawl
3. RBR on bongo (temp. & depth on 2nd leg; only temp. for first leg).
4.
5.

- all depths given were taken from an instrument that was attached to the bottom of the boat (which was ~5 m below surface)

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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 Information Latitude	Positional Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
180	2834	26	18:20	BE	NET		48° 36.117	125° 41.169	60		-		JW/LF	☐☐	Bongo
			18:22	BO			48° 36.099	125° 41.122		50	-			☐☐	Rad+tch.
			18:24	EN			48° 36.097	125° 41.096			-			☐☐	
181	2710	26	:		TRAWL		° .	° .			-			☐☐	
182	2710	26	19:32	BE	CTD		48° 33.905	125° 38.490	66		-			☑☐	
			19:33	BO			48° 33.907	125° 38.477		55	-			☐☐	
			19:34		BOT	MSG	48° 33.905	125° 38.470	66	2	31 -	1	JW/LF	☐☐	1x Sal 2x ch 2x nut
			19:34	EN			48° 33.903	125° 38.465			-			☐☐	
183	2710	26	19:38	BE	NET		48° 33.874	125° 38.443	66		-			☐☐	Bongo
			19:40	BO			48° 33.859	125° 38.435		55	-			☐☐	
			19:41	EN			48° 33.850	125° 38.431			-			☐☐	
184	187		:		TRAWL		° .	° .			-			☐☐	
188	3088	27	16:54	BE	CTD		48° 40.080	125° 27.211	66		-			☑☐	
			16:56	BO			48° 40.066	125° 27.208		55	-			☐☐	
			16:57		BOT	MSG	48° 40.034	125° 27.203	66	2	32 -	1	JW	☐☐	1x Sal 2x ch 2x nut.
			16:58	EN			48° 40.031	125° 27.204			-			☐☐	
189	3088	27	17:01	BE	NET		48° 39.976	125° 27.237	66		-			☐☐	Bongo
			17:03	BO			48° 39.929	125° 27.258		54	-			☐☐	
			17:05	EN			48° 39.912	125° 27.267			-			☐☐	

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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 14 February 2013

Battery @ 11.8 → 11.5

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190	2961	27	:		TRAWL		° .	° .			-			☐☐	
191	2961	27	18:41	BE	CTD		48° 38.621	125° 35.821	133		-		JW	☑☐	
			18:44	BO			48° 38.587	125° 35.808		120	-			☐☐	
			18:46		BOT	MSG	48° 38.557	125° 35.800	133	2	33 -	1		☐☐	1xsal 2xch 2xnut
			18:47	EN			48° 38.554	125° 35.801			-			☐☐	
192	2961	27	18:50	BE	NET		48° 38.510	125° 35.781	105		-		JW	☐☐	Bongo
			18:54	BO			48° 38.451	125° 35.768		95	-			☐☐	
			18:56	EN			48° 38.428	125° 35.757			-			☐☐	
193	2960	27	:		TRAWL		° .	° .			-			☐☐	
194	2960	27	20:07	BE	CTD		48° 39.760	125° 38.625	167		-			☑☐	
			20:10	BO			48° 39.715	125° 38.669		155	-			☐☐	
			20:13		BOT		48° 39.676	125° 38.690	167	2	34 -			☐☐	1xsal 2xch 2xnut
			20:14	EN			48° 39.672	125° 38.693			-			☐☐	
195	2960	27	20:20	BE	NET		48° 39.644	125° 38.744	149		-			☐☐	Bongo
			20:23	BO			48° 39.563	125° 38.744		120	-			☐☐	
			20:27	EN			48° 39.518	125° 38.758			-			☐☐	
196			:		TRAWL		° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

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