

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

PAC
2010-72

DATE:

From: Aug 29 2010 to: Sept 3 2010

VESSEL:

Nucleus

PROJECT(S):

Discovery Islands Circulation

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

WaterProperties.ca

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month		Year		Ship		Cruise ID									
AUG		2010		Nucleus		2010-72									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
30	Cinque	1135				/									Weather STN
	NOCH2	1227				01	50 21.63	125 22.41							UV cast 20m
	NOCH2	1234	BE	CTD		02	50 21.61	125 22.43							No wire L
		1240	BO				50 21.57	125 22.50	263	*200					CTD Cast
		1244	EN				50 21.55	125 22.55							
	Lee IS					/									Weather STN
	NOCH1	1355	CTD/UV			03	50 24 720	125 19 440		~12m					UV cast
	NOCH1	1400	BE	CTD		04	50 24 700	125 19 453							
		1406	BO				50 24 670	125 19 468	285	*250					CTD Cast
		1411	EN				50 24 676	125 19 470							
	FEArm2	1446	BE	CTD		05	50 27 18	125 17 157	309						CTD Cast
		1451	BO				50 27 19	125 17 24		250					
		1456	EN				50 27 21	125 17 31							

Cast Type:

11SW = Sea Water Loop

Bottle Firing Method:

Time Code:

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USW = Sea Water Loop
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NET = Plankton Net Haul
DRF = Drifter
=

Bottle Firing Method:
US = Up / Stop
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Notes:

Time Code:
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Transmissometer to be cleaned before each cast, do not use Ammonia products

2010-72

This page is for any notes or observations

Aug 29 - Arrive CR load Nucleus

Aug 30 - Fuel CR 400+ l diesel depart for Cingue Is 0914 - Sunny Very light winds

1135 - Arrive Cingue Island Weather STN Download, STN GOOD

1150 - Depart for Noddles Channel CTD

1215 - 6 killer whales NE of Howe Island

Noddles CTD with UV sensor to 20m. Dark test with cap on $\approx$ 30 sec from
12:24 / then air sample, cap off $\approx$ 30 sec. / then surface $\approx$ 30 sec / then
air $\approx$ 30 sec. / then underwater cast to $\approx$ 20m.

12:27 - CTD turned on NO CH2, UV @ surface - slight shadow from ship
cast start 1229. Dark cap on UV after 30 sec air sample.

1244 - 12+ killer whales breaching off Braugham Pt fish farm

1300 - to Lee Island weather STN arrive 1336

- depart Lee Is 1336. killer whales in bay off Lee Is, to NO CH2

1350 - NO CH01 - UV dark test, air, water surf

- Too many killer whales to talk about

1440 - Fredrik Arm 2 CTD no UV 250m - no sounder - off chart

1500 - To Gomer Is weather STN

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Month <u>AUG</u>		Year <u>2010</u>				Ship <u>Nucleus</u>				Cruise ID <u>2010-72</u>					
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							Latitude	Longitude							
30	Gomer	1515													weather STA
30	FE 3	1541	BE	ROS		06	50 28 709	125 16 109	190						Chart depth
		1546	BO				50 28 715	125 16 113		150					CTD SAL CAL
		1551	EN				50 28 80	125 16 118							
30	FE 1	1559	BE	CTD		07	50 29 28	125 15 55	166						Chart depth
		1603	BO				50 29 28	125 15 55		2140	-bottom? hit?				CTD
		1607	EN				50 29 29	125 15 57							
30	FA	1631	BE	CTD		08	50 26 94	125 18 088	208		Chart depth				CTD
		1634	BO				50 26 96	125 18 125		150					
		1637	EN				50 26 96	125 18 141							
30	PA 2	1705	BE	CTD		09	50 29 021	125 22 067	100						Chart depth
		1708	BO				50 29 028	125 22 075		80					
		1710	EN				50 29 027	125 22 074							

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Produced by the Water Properties Group, IOS

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 Version: 06 March 2008

Aug 30 2010

This page is for any notes or observations

1630 - Done Frederick Arm CTD stus - off to Phillips Arm

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[illegible]

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Aug 30 2010

1735 -

PAI head of Phillips arm CTD in rain 40m

1745 -

Run to Noel Island Weather Station

1830

@ Noel IS

1843

away

1850

Noel Island CTD = NI 100m

1900 -

Away to Blind Channel

2000

- arrive Blind Channel, turn up dock \$5400

1910 -

Download CTD data = $V_{main} = 12.6 \text{ Volts}$ $V_{lith} = 5.2v$
ncasts = 11

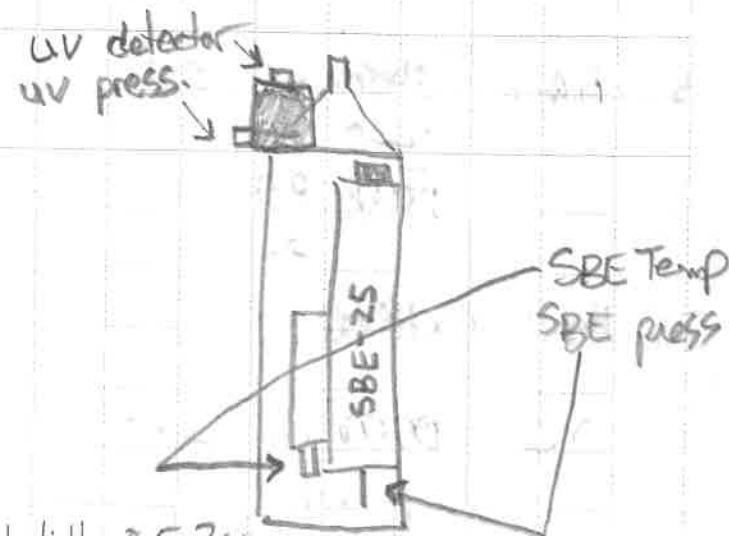
Data to C: Discovr Islands/2010-72/CTD Data casts 0-10

2213 -

all done data

This page is for any notes or observations

SBE 25 + UV



DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month AUG				Year 2010				Ship Nucleus				Cruise ID 2010-72			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
31	Knox	0700					Weather Station								Service Weather STN
31	OK Ch	0911	BE	CTD		12	50 17 636	125 19 897	350'						Sounder
		0915	BO				17 609	19 891		100m					
		0917	EN				592	897							
	OK	0944					OK 15010 Weather STN								
	OK Ch Z	1016	BE	CTD		13	50 18.45	125 15 96	400'						Sounder
		1020	BO				50 18 56	125 16 61		100m					Rain Fog
		1022	EN				50 18 58	125 16 62							
	Francisco						- need Solar / UV ? + RAZA						Weather STN		Service
31	Gyr P14	1125		CTD		14	50 15.10	125 12.78	28'						Sounder
		1128								60m					
		1129					50 15.14	125 12.75							

Aug 31 2010 - 72

This page is for any notes or observations

0500 - Blind Bay Departure for Knox Rain Fog

0700 - Knox Bay

0944 - Arrive OK

1012 - Lu Odisollo weather STN

Rain fog for Francisco Is weather STN

1016 - OK Ch 2 CTD

Francisco Weather STN

1125 - Cyr Rock CTD
Surge Narrows CTD = 60m

1156 - Surge Narrows North

Aug 31

This page is for any notes or observations

1242 - Hos Ch - CTD 100m

1247 - Run to HCL CTD

1325 - HCL - Hug swell big lumpy - CTD 100m

1330 - Leave HCL in Sutil Channel ... Yuck ...

1336 - Turn around head back to Hoskyn Channel. Sutil too lumpy

1435 - through white rock passage heading north to CA3 CTD

1500 - CA3 Seal Cal 150m

1530 - Rendezvous - no communicate with LG - Port ^{com} error
513 pgs 100% brought back to Nucleus to use Dell

Dell last record 8/31/10 2pm First record 5/16/10 11pm File on Dell Rendezvous

still unable to talk to Rendezvous console with LG
4pm - all done Rendezvous download - head North in Calm CH

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Month AUGUST Year 2010 Ship Nucleus Cruise ID 2010-72

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
31	Calmch	1624	BE	CTD		19	50 20 40	125 06 18	SSD						drift depth
		1631	BO			See note *	50 20 38	125 07 07		300					
		1640	E				50 20 31	125 07 14							Not on
31	1701 Henrietta						Weather Station				1716	Away, All Good			

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Notes:

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 06 March 2008

1823 - Data download BIG BAY Community Dock August 31 File name
 31011-hex to 31017 data cast 31017 is event 18 CAB STD Sal Cal 150 m
 Vmain 12.4 volts V1th 5.1 N casts 18

* Events #19 -24 should be shifted ahead 1 place. This
 entry was intended to be 19 but no data were logged, so
 the cast was rerun the next day. G. Batien

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Month <u>SEPT</u>				Year <u>2010</u>			Ship <u>Nucleus</u>				Cruise ID <u>2</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
1	Caltech	0747	BE	ROS		20	50 20 42	125 06 95	550m						Sal Cal
		0755	BO			19 G.G.	50 20 49	125 06 93		300					
		0805	EN				50 20 51	125 06 90							
1	Ra Pass	0845	BE	CTD		21	50 19 76	125 01.02	282						CTD (75-100m)
		0851	BO			20 G.G.	50 19 75	125 01.05		200					
		0856	EN				50 19 77	125 01.11							
1	RAZA	0930								Fawn site visit					Weather Station
1	Rondez	1020	BE			22	50 17 03	125 02 37	443						
		1024	BO			21 G.G.	50 17 03	125 02 35							CTD
		1027	EN				50 17 02	125 02 32							
	De Pass	1048	BE			23	50 16 13	124 58 97	496						Den Pass
		1051	BO			22 G.G.	16 17	58 94							CTD
		1055	EN				16 20	58 91							

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Sept 1 2010

This page is for any notes or observations

- 0700 - Depart Stunt Is dock for recast calm ch CTD STN
- 0730 - called RAZA Farm no answer
- 0830 - UHF 9 to RAZA - OK to come in for download
- 0900 - Dore Ra Pass CTD zoom Into RAZA FARM site
- 0940 - Lv Raza For Rendezvous 7 CTD
- 1055 - Winch batteries low - charge up.
Head up to Pryce Channel

Sunny 25° light wind

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							Latitude	Longitude							
1	Pryce Ch	1127	BE	CTD		24	50 18 57	124 55 20	160						
		1129	BO			23 66	50 18 57	124 55 18		100					
		1132	EN				50 18 57	124 55 17							
1	Pch	1201	BE	CTD		24 66	50 17 84	124 49 54	500						
		1204	BO				50 17 85	124 49 54		100					
		1209	EN				50 17 85	124 49 54							
1	Double	1345		UV CTD		25	50 19 15	124 47 10		8m					
1	Double	1358		UV CTD		26	50 19 15	124 47 13		12.7m					
1	Le Char	1615		CTD		27	50 10 68	124 54 93	163						
		1618					10 65	54 93		128					
		1622													
1	HomFrax	1810					50 06.526	124 48 748			New weather station				

SEPT 01 2010-72

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1125 - Pryce Channel - Battery seems okay? Cast to 20m then tried to recover to test winch battery. then cast to 100m

1135 - Run to Pt Chan CTD

1201 - Pt Ch CTD 100 m

1210 - Run thru Waddington Pass for UV test & weather STN set up Satil

UV test

1235 - weather STN Flooded in tote - no work. Turn around to Double Is STN Double Is unable to com with LG - No Battery displayed on console - Slack Sam Used Dell on boat for download 513 pages - Aug 11 last record

1345 - Double Is UV test 145 pm dark test in air

1346 - Cap CFF in air

1347 - Sensor 3" under water UV 4.9 Salin 719

1348 - 4.9 719

1349 - 1/2 meter under 4.9 721

1350 - 1 meter under 4.9 719

- profiles x 2 CTD 25 + 26

1415 - Run Raza for spare SS

1445 - Got HomeTray weather st SS working - Deer Pass to Lewis Ch CTD

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Month <u>Sept</u>				Year <u>2010</u>			Ship <u>Nucleus</u>			Cruise ID <u>2010-72</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
2	Ho Chan 3	0830	BE	ROS		28	50 05 66	124 48 56	500m						Sal Cal
		0837	BO				50 05 60	124 48 60		310m					
		0848	EN				50 05 60	124 48 60							
2	Ho Chan 2	0950	BE	CTD		29	50 10 25	124 40 00	700						
		0952	BO				50 10 25	124 39 99		100					
		0955	EN				50 10 25	124 39 97							
2	Ham Gray	1030	BE	CTD		30	50 14 10	124 37 13	380						
		1035	BO				50 14 10	124 37 13		100					
		1037	EN				50 14 10	124 37 13							
2	Ho Ch 1	1106	BE			31	50 17 16	124 39.3	700m						
		1108	BO				50 17 17	39.39							
		1110	EN				50 17.18	124 39.39		100					
2	Double	1155				32	50 19 13	124 47 09	54'	12.7m	Double Island UV		testing		
		1211				33	19 18	47 12		12.3m	UV profile				
		1228				34	19 11	47 10		12.6	UV profile				

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Sept 1 2010

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1800 - HonTray weather sta - deep water straight in. Console to the arbutus trees by rock bluff directly behind mast a 60' station on eastern most point of Martin Islands. Station has really clean fetch to NE up HonTray Channel. Anemometer arm faces 335° M = TN. Station has UV + Solar

1900 - Refuge Cove dock @ 1830
2035 - CTD download

Sept 02 2010 Thursday

0700 - Breaky on dock @ Refuge Cove Sunny broken clouds 23°

0800 - Away to garbage barge
- to Ho Chan 3 Sal Cal 300m 0840
- to Ho Chan 2

1115 - to Ho Ch 1
- run to Rendezvous Is Weather for UV profile
- run to Double IS (Tuba) for UV STN ch. #1

1200 - Set up Nucleus PL to Sun Stbd side fastest 54' depth drifting a 50' from station

1238 - Done - to White rock Pass

1344 - off Southern tip RAZA Is

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							Latitude	Longitude							
2	Piper Pt.	1411	BE	CTD		35	50 16 75	125 04 90	157						Northern Whiterock
		1414	BO				50 16 77	125 04 94		100					
		1416	EN				50 16 78	125 04 97							
2	Whrk	1424	BE	CTD		36	50 16 17	125 05 15	80						Northern Whiterock
		1426	BO				50 16 18	125 05 16		93					
		1428	EN				50 16 19	125 05 17							
2	Jesse Flats	1438	BE	CTD		37	50 15 34	125 05 74	30						Northern Whiterock
		1439	BO				50 15 38	125 05 51		30					
		1440	EN				50 15 40	125 05 47							
2	Srock	1502	BE	CTD		38	50 13 43	125 07 81	102						Southern Whiterock
		1504	BO				50 13 44	125 07 81							
		1505	EN				50 13 48	125 07 84							
Outy															

September 02 2010 Thursday 2010-72

This page is for any notes or observations

- 1411 - White rock Passage CTD stns - from northern most part to southern most part off of Welsford Islands
- 1520 - to CR $\approx$ 26 miles S rock to CR via Mudge $\approx$ 4 hrs for 7pm
- 1530 - CTD data down land cast 27-37 Sept 02
- 1600 - Hoskyn Rock Sunny light chop
- 1701 - Cape Francisco 12' deep
- 1723 - Cape Mudge
- 1750 - CR