

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2010-29

DATE:

From: April 01 2010

to:

VESSEL:

ECHO

PROJECT(S):

Discovery Islands

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

WaterProperties.ca

Captain: Doug Murdoch
 Second Officer: _____
 Fishing Master: _____
 First Officer: _____
 Third Officer: _____

Mission Participants / Agencies:

Scientific Personnel:	Chief Scientist:
Name	Watch Cabin
Darren Twele	Darren Twele

Second leg of Mission: _____
 Name _____ Watch _____ Cabin _____ Name _____ Watch _____ Cabin _____

Data logging computer:

Data acquisition program:

CTD deck unit make: 586 model: 9 serial number: 1294

Primary CTD

Make: <u>SBC</u>	model: <u>19</u>	serial number: <u>1294</u>	<u>pumped</u>
Primary temperature	serial number: <u>1294</u>		
Primary conductivity	serial number: <u>1294</u>		
Secondary temperature	serial number: <u>1294</u>		
Secondary conductivity	serial number: <u>1294</u>		
Transmissometer:	Model: <u>1294</u>	s/n: <u>1294</u>	
Fluorometer:	Model <u>1294</u>	Cable gain: <u>1294</u>	
Oxygen sensor:	Model: <u>1294</u>	s/n: <u>1294</u>	P, S or NO pump?
PAR sensor:	Model: <u>1294</u>	s/n: <u>1294</u>	P, S or NO pump?
Other sensors:		s/n: <u>1294</u>	P, S or NO pump?
Other sensors:		s/n: <u>1294</u>	P, S or NO pump?
Other sensors:		s/n: <u>1294</u>	P, S or NO pump?
Other sensors:		s/n: <u>1294</u>	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: _____

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: _____

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):

Rosette Setup:

Number of bottles: _____
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):

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: SBE-19 + 1.7L Urskin for cals

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <u>APRIL</u>				Year <u>2010</u>				Ship <u>ECHO</u>				Cruise ID			
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	23	1153	SE	CTD		001	50 15.572	125 23.416	248						
		1202	BO				50 15.96	125 23.474		50	line out				
		1203	EN				50 16.00	125 23.50							
1	SS DP	1221	BE	CTD		002	50 20.20	125 27.90	303						
		1224	BO				50 20.201	125 28.68		80	line out				
		1226	EN				50 20.202	125 28.053							
1	Knox Bay	1250													Service weather station
1	CH Chan	1341	BE	CTD		003	50 25.019	125 42.503	267						Big wire
		1344	BO				25 018	42.538		80	line out				
		1346	EN				25 024	42.587							
	Blind Channel														
1	FA	1600	BE	ROS		004	50 26.97	125 18.07	242						Big winds 30+
		1604	BO				50 27.00	125 18.05		20	line out				Sal Cal
		1608	EN				50 26.97	125 18.04							4 wire angle
1	PHA	1624	BE	CTD		005	50 28.406	125 21.038	121						
		1628	BO				50 28.426	125 22.015		80					
		1631	EN				50 28.446	125 21.974							

phys add 00-25-D3-20-C4-7E

IP 169.254.117.112

Subnetmask 255.255.0.0

This page is for any notes or observations

Apr 1 2010

1330 Fish farm North Chancellor Ch. South end Hardwick IS active farm, per. comes
Green House green roof Log dump 1km east of farm

1345 - CH Chan CTD - Fish farm opposite Wellbourne Ch on Wren Thulow IS
also, farm on W. Thulow to east of CTD STA a mile

1500 - into Blind Channel Lodge, wind 30+

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month				Year			Ship				Cruise ID				
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	WJ	1642	BE	CTD		006	50 27.29	125 24.78	135						
		44	BO				50 27.29	125 24.787		80	line				
		48	EN				50 27.291	125 24.74							
2	Gomer	weather	station												
2	Nochar	1252	BE	CTD		007	50 21.63	125 22.50	262						
		1256	BO				50 21.66	125 22.572		80	line out				
		1259	EN				50 21.658	125 22.423							
2	Nochar	1314	BE	CTD		008	50 24.691	125 19.339	332						
		1317	BO				50 24.657	125 19.358		80	big angle				
		1321	EN				50 24.600	125 19.401							
	FRANCISCO	Island	Weather	STA											
2	Cyr RK	1536	BE	CTD		009	50 15.78	125 12.398	77						
		1540	BO				50 15.691	125 12.348		80					
		1543	EN				50 15.607	125 12.311							
2	Cach	1600		CTD		010	ABORT @ 2m - too much current								

Cast Type:
BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

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

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

Notes: _____

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

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 06 March 2008

Friday April 02 2010

Stitty weather everywhere 40+ winds

1130 - Fuel Echo Blind Channel Lodge - 125 lbs
head out to check weather - wind rain

1205 - Gomer IS Weather SW

- CTDs in Nodules ch

1400 Run to Dent Lodge - Justin

1440 Run to Octopus Grp - Francisco IS
CID - Cyork

1550 Run to Hole in Wall CTD

1600 - Canall CTD cast @ 2m too much current / wind
head back to DENT

DAILY SCIENCE LOG

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Month <u>APRIL</u>				Year <u>2010</u>			Ship <u>ECHO</u>			Cruise ID					
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							
3	BUZ	0934	PE	CTD		011	50 28.284	125 04.210	500*						bottle 1.5m
		0938	BO	ROS			50 28.339	125 04.206		80	Salinity bottle				above press.
		0941	EN				50 28.379	125 04.194							Sensor
3	Ca Chan	1011	BE	CTD		012	50 20.40	125 06.95	450						
		1016	BO				50 20.511	125 07.00		80	Big Angle				Trawl station keeping
		1019	EN				50 20.50	125 07.05							
3		1200		TOBA - Double Island Weather Station											
3	R Chan	1214	BE	CTD		013	50 18.811	124 46.269	496						
		1217	BO				50 18.855	124 46.284		80	tail				
		1221	EN				50 18.897	124 46.281							
3	Humphrey I	1238	BE	CTD		014	50 17.17	124 39.58	600*						
		1241	BO				50 17.13	124 39.596		80	tail/wind/Big Angle				talk to skipper
		1244	EN				50 17.101	124 39.616							

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WaterProperties.ca
 Version: 06 March 2008

April 3 2010

0900 Lv Dart for Bite

1020 Leave Calum Channel for RAZA Fish Farm

1044 VHF ch 9 RAZA Farm - to Visitor dock get fuels download weather

1100 Fuel @ Raza 103 hrs 103.2

1130 Leave Raza

1200 @ double Island Station 50 19.141, 124 47.19

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>APRIL</u>				Year <u>2010</u>			Ship <u>ECHO</u>			Cruise ID					
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							
3	Hochan 2	1305	BE	CTD		015	50 10.311	124 39.248	500						
		1308	BO				50 10.328	124 39.249		80					
		1311	EN				50 10.350	124 39.252							
3	Hochan 2	1335	BE	CTD		016	50 05.683	124 48.549	503				DM		Big Wire angle
		1338	BO				50 05.725	124 48.544		80					Doug did CTD ★
		1340	EN				50 05.733	124 48.552							
3	LECHAN	1422	BE	CTD	Skogun	017	50 10.734	124 54.56	259.2				DT		Big Wire angle
		1425	BO				50 10.758	124 54.587		80					Doug did CTD ★
		1427	EN				50 10.790	124 54.607							
	LECHAN 2	1442	BE	CTD	CONRAD	018	50 14.286	124 58.900	350						North Lewis Ch.
		1445	BO				50 14.303	124 58.912		80					
		1448	EN				50 14.315	124 58.924							
3	DE PASS	1456	BE	CTD	P1581	019	50 16.097	124 59.132	206						
		1459	BO				50 16.061	124 59.170		80					
		1501	EN				50 16.017	124 59.220							

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DRF = Drifter

Bottle Firing Method:

US = Up / Stop
UN = Up / No stop
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Time Code:

BE = Beginning Time of Cast
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Transmissometer to be cleaned before each cast, do not use Ammonia products

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2010
April 3-1340 head up Lewis Channel from Homfrey

1709¹²
XIR 723

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>APRIL</u>				Year <u>2010</u>			Ship <u>EC40</u>			Cruise ID					
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							
3	REND 01	1509	BE	CTD	021	020	50 17.036	125 02.334	300+				DM/DT		
		1512	BO				50 17.051	125 02.336		80					
		1514	EN				50 17.667	125 02.407							
3	Ronde	1515		Weather Station											
3	Ra Pass	1547	BE	CTD		021	50 19.627	125 00.882	280+						
		1550	BO				50 19.617	125 00.883		80					
		1552	EN				50 19.608	125 00.937							
4	PA1	0957	BE	CTD		022	50 31.80	125 21.976	46.4						Phillips Arm
		0959	BO				50 31.79	125 21.974		45.5					inside - PA1
		1000	EN				50 31.78	125 21.970							
4	PA 2	1032	BE	CTD		023	50 29.023	125 21.923	113						Entrance to Phillips arm
		1035	BO				50 29.034	125 21.962		80	big wine angle				
		1038	EN				50 29.050	125 21.999							

Cast Type:

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SET = Fish Set

USW = Sea Water Loop

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NET = Plankton Net Haul
DRF = Drifter
=

Bottle Firing Method:

US = Up / Stop
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DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
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Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 06 March 2008

April 3 2010 1600 - into Raza farm for fuel - 74 L

1610 - Lv Raza for Dent Is. Lodge

1640 - Arrive Dent Island

1700 - Offload gear

1800 Download CTD on dock

Add

Frederick Arm 1

Frederick Arm 2

Hoskyn Channel

Okisollo Channel

Phillips Arm 1

Phillips Arm 2

Sut Chan 2

#1

① Okisollo N Add

① Okisollo - Cat Grip

① White Rock Pass

① Calm Ch.

April 4 - TO Phillips Arm
fish farm on right side going in @ entrance to Arm

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <i>April</i>				Year <i>2010</i>			Ship <i>ECHO</i>			Cruise ID					
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							
4	feArm1	1059	BE	ROS	CTD	024	50 29.016	125 15.737	176						Sal Cal
		1103	BO				50 28.999	125 15.742		80					bottle up 1m
		1106	EN				50 28.983	125 15.745							From press.
4	CC1	1123	BE	CTD		025	50 26.78	125 15.69	200						Corduro Chan
		1128	BO				50 26.80	125 15.72		80					
		1128	EN				50 26.80	125 15.74							
4	CA3	1211	BE	CTD		026	50 17.58	125 05.25	258		Big Wire L				Calm ch. west
		1214	BO				50 17.56	125 05.22		80					Side Rendezvous
		1216	EN				50 17.55	125 05.21							
4	^{su} CHAN 1	1247	BE	CTD		027	50 10.075	125 01.344	400+						
		1250	BO				50 10.066	125 01.374		80					
		1253	EN				50 10.053	125 01.398							
	TO HERIOT BAY Fuel														
4	HC1	1434	BE	CTD		028	50 07.94	125 10.10	113						Hoskyn Ch.
		1438	BO				50 07.90	125 10.16			Big Wire L				South off
		1440	EN				50 07.89	125 10.16							Viner Pt

Cast Type:

BOT = Bottle cast, no CTD
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 MOR = Mooring
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 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

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 Version: 06 March 2008

April 4 2010

This page is for any notes or observations

1052 - Into Frederick Arm. 2 fish farms, one on each side
coming into Arm
- Fe Arm 1

1254 - Head to Heriot Bay for Fuel

1330 - 103 l in boat 13 l in Jerry Can = 116 l

1425 - Lunch, leave Dock for Hoskyn Ch

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>APRIL</u>				Year <u>2010</u>				Ship <u>EC10</u>				Cruise ID				
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								
4	HOSCHAN	1451	BE	CTD		029	50 10.823	125 08.218	112							
		1454	BO				50 10.803	125 08.214		80						
		1458	EN				50 10.780	125 08.207								
4	SURNW1	1510	BE	CTD		030	50 13.809	125 09.350	69						North end Surge narrows	
		1512	BO				50 13.805	125 09.347		67						
		1514	EN				50 13.803	125 09.342								
4	OKISOLLO	Weather Station Service														
4	OKChan	1600	BE	CTD		031	50 17.67	125 19.97	123						Okisollo Chan west	
		1602	BO				50 17.67	125 19.96		80						
		1604	EN				50 17.67	125 19.96								
4	OKChan2	1613	BE	CTD		032	50 18.55	125 16.576	123						East Okisollo Ch	
		1616	BO				50 18.55	125 16.576		80						
		1619	EN				50 18.563	125 16.577								

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Bottle Firing Method:
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Time Code:
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April 4 2010

1510 - CTD North Surge Narrows

1515 - head up Okisollo to weather station

1550 - Okisollo weather station Service - 1 oil into outboard

1605 - OK Chan CTD - 80m

1620 - Head to Pent Island All DONE !!

Work

Naut. Mile

Fuel

125.2

ECHO

This page is for any notes or observations

Brown's Bay - #23 Discovery Pass

CTD

#23- JSDP

CTD

JSDP - Knox Bay

Weather STN

Knox - Ch Chan

CTD

Ch Chan - Blind Ch lodge

~~STAY~~

40 total

Blind - FA

CTD/ROS

FA - PA

CTD

PA - Noel Is

CTD

Blind Channel Fuel

62 total 125.2 Blind CH

APRIL 1

Bl. CH - Gomer

Weather STN

Gomer - No CH 1

CTD

NoCH1 - NoCH 2 ^{DENT}

CTD ~~STAY~~

86 total

NoCH2 - Cyr Rk

CTD

Cyr - Dent

STAY

108 total 283.6 HRS on motor

APRIL 2

Dent - BU2

CTD/ROS

APRIL 3

BU2 - CACH

CTD

Ca Ch - Tobu RAZA

130 total 103.2 RAZA

Tobu - Pryce

Weather STN

Pryce - Horn Fray

CTD

Horn - Ho Chan 2

CTD

Ho Chan 2 - Ho Chan 3

CTD

Ho Chan 3 - Lewis Ch

CTD

Lewis Ch - Le Chan

CTD

Le Chan - Deer Pass

CTD

CTD

Work

Nav. Mile

Fuel

This page is for any notes or observations

Den Pass - Rendezvous
Rendezvous Weather STN

CTD
Weather STN
CTD

Rendezvous - Raza Pass

RAZA Farm Fuel

Raza Farm - Dent

~~STAY~~

195 total

74.2 RAZA

Dent - Phillips Arm

CTD

Ph A - PAZ

CTD

Phillip - Frederick I

CTD / ROS

Fr A - CCI

CTD

CCI - CA3

CTD

CA3 - Su Ch

CTD

Su Ch - Herot Bay Fuel

116.2 Herot Bay

Herot - HCI

CTD

HCI - Hos ch

CTD

Hos - Surg Nan

CTD

Surg - OKIS Weather STN

Weather STN

STN - OKS ch

CTD

OKch - OK ch2

CTD

OK - DENT

~~STAY~~

APRIL 3
APRIL 4

543 total to April 4