

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2008-30
Book 2

DATE:

From: July 17

to: Aug 21, 2008

VESSEL:

CCGS Louis St. Laurent

PROJECT(S):

JOINT OCEAN ICE STUDY 2008

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

WaterProperties.ca

Treat this daily science log as an invaluable source of information of what happened on your research mission. Months, years, or even decades after your research has been completed, people will still consult this logbook for information and as such, one should make all efforts to complete this logbook (and any associated sheets for rosettes, fish sets, plankton tows, etc) as events unfold on a daily basis. This logbook has been supplied with extra sheets of paper for you to record any additional information.

Please remember to record such events as:

- An observed failure or strange reading of a sensor during a CTD cast
- A computer crash or software issue
- Switching of a CTD or sensor unit, including the removal or replacement of a PAR sensor
- A bottle that fails to trip or bottles that are tripped without commands being sent to the pylon during the cast
- A syringe that is left on a cell during a cast
- The cleaning (or lack thereof) of a transmissometer
- A nutrient sample from the seawater loop
- A failure of a NMEA string input into the deck unit
- Failure of the CTD pump to turn on or failure to turn on the CTD pump during a cast
- A CTD or rosette that is recovered with mud or jellyfish attached to it
- A sample bottle is removed or switched or weights are added or removed from the rosette or CTD unit
- Any unusual biological observations (e.g., large numbers of squid, jellyfish, birds, zooplankton swarms, thick waters due to phytoplankton)
- Any change in sampling protocols that either do not follow standard procedures or are using different standard procedures

***Please ensure that you have reviewed the required standardized sampling protocols prior to taking any samples.
Current copies of sampling protocols may be found on the Water Properties website at WaterProperties.ca***

The format for sample labels is:

Sample Number	124
Sample Type	Sal
Station Name	LC12
Cruise ID	2008-16
Bottle Number	Bot 1

Water Properties Emergency Contacts:

CTD/Rosette:	Doug Anderson, 250.363.6305 Hugh Maclean, 250.363.6594 Ron Lindsay, 250.363.6592
Nutrients:	Janet Barwell-Clarke, 250.363.6815 Wendy Richardson, 250.363.6544
Salinities/Oxygen:	Sheila Sloman, 250.363.6300
Other Questions:	Steve Romaine, 250.363.6868

Captain: _____

Second Officer: _____

Fishing Master: _____

First Officer: _____

Third Officer: _____

Mission Participants / Agencies:

[illegible][illegible]

Data logging computer:

Data acquisition program:	serial number:
CTD deck unit make:	model:

Primary 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? _____

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:

	Make:	Model:	Serial #:	Used for:
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:

Captain: _____

Second Officer: _____

Fishing Master: _____

First Officer: _____

Third Officer: _____

Mission Participants / Agencies:

[illegible][illegible]

Data logging computer:

Data acquisition program: _____

CTD deck unit make: _____ model: _____ serial number: _____

Primary 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?

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:

	Make:	Model:	Serial #:	Used for:
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:

Date of cable termination:

Guide to cable terminations:

Please read and complete this form before reterminating cable. We have two standard CTD cables in use, nominal .316" and .322". This form specifically addresses these two cables; however, the same considerations apply to using other cables. The specifications for non-standard cables and associated terminations are available from Tom Juhász, IOS room 1221, phone 250.363.6598.

Please identify nominal cable diameter:

identify nominal cable diameter: _____ **Winch:** _____
Actual diameter measurements, two locations in triplicate at termination and approximately 5 metres back from termination.

At cable end:

at 5 metres:

1. _____

2. _____

2. _____

3.

For comparison, the outer armour measurements of new cable:

Nominal .316" should be .3155 to .3165"

Nominal .322" should be .318 to .326"

Record specifications for other cables:

The tolerance of the PMI Evergrip termination is tighter and only cables within these limits should be used.

For nominal .316" cable the lowest possible diameter is .309"

For nominal .322" cable the lowest possible diameter is .321"

Describe cable:

Kinks:

Birdcage

Rust flaking off cable

Cable round or oval

Does cable have loose outer armour?

(Raised wires or space between wires.)

Are outer armour wires flattened?

Remove cable that exhibits these signs of deterioration. To be authorised by Chief Scientist of the cruise or the winch shop, Phil Lobb at 250.363.6799.

Megger results by conductor (should be greater than 10,000. meg ohms)

Inner armour to conductor 1

Inner armour to conductor 2

Inner armour to conductor 3

Please identify PMI sleeve used by checking the appropriate blank:

For .316" cable, diameter of inner dimension of sleeve should be .3265" part number 9004897-13, cable diameter range .309" to .320".

For .322" cable, diameter of inner dimension of sleeve should be .3400"
part number 9004897-14, cable range .321" to .333".

Sliding the sleeve onto the cable should be difficult.

Evergrip helical Rods:

The part number is 9005-9002 and covers left hand lay cables of diameter range .309" to .333".

Presence of grit on inner surface (yes / no)

Condition of wires (damaged ends?)

Are the wires rusted?

Comments:

[illegible]

available from Tom Juhász, IOS room 1221, phone 250.363.6598.

Winch: _____

back from termination.

at 5 metres:

1

2.

3

For comparison, the outer armour measurements of new cable:

Nominal .316" should be .3155 to .3165"

Nominal .322" should be .318 to .326"

Record specifications for other cables: _____ within: _____

The tolerance of the PMI Evergrip termination is tighter and only cables within these limits should be used.

For nominal .316" cable the lowest possible diameter is .309"

For nominal .322" cable the lowest possible diameter is .321"

Describe cable:

Kinks:

Birdcage

Rust flaking off cable

(flaking, not just looks rusty)

Cable round or oval

Does cable have loose outer armour?

(Raised wires or space between wires.)

Are outer armour wires flattened?

Remove cable that exhibits these signs of deterioration. To be authorised by Chief Scientist of the cruise or the winch shop, Phil Lobb at 250.363.6799.

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At cable end:

at 5 metres:

1. _____
 2. _____
 3. _____

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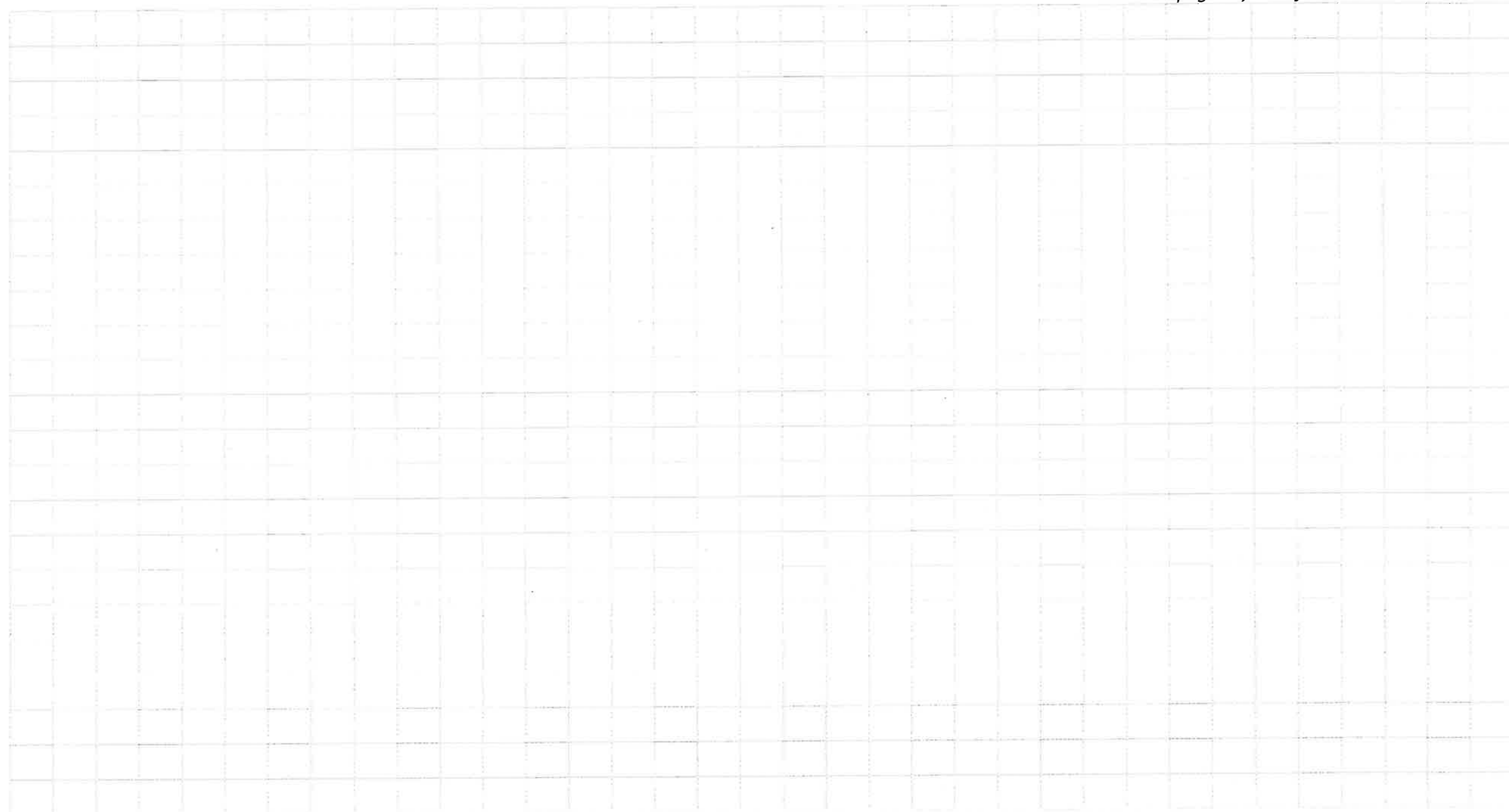
Presence of grit on inner surface (yes / no)

Condition of wires (damaged ends?)

Are the wires rusted?

Comments:

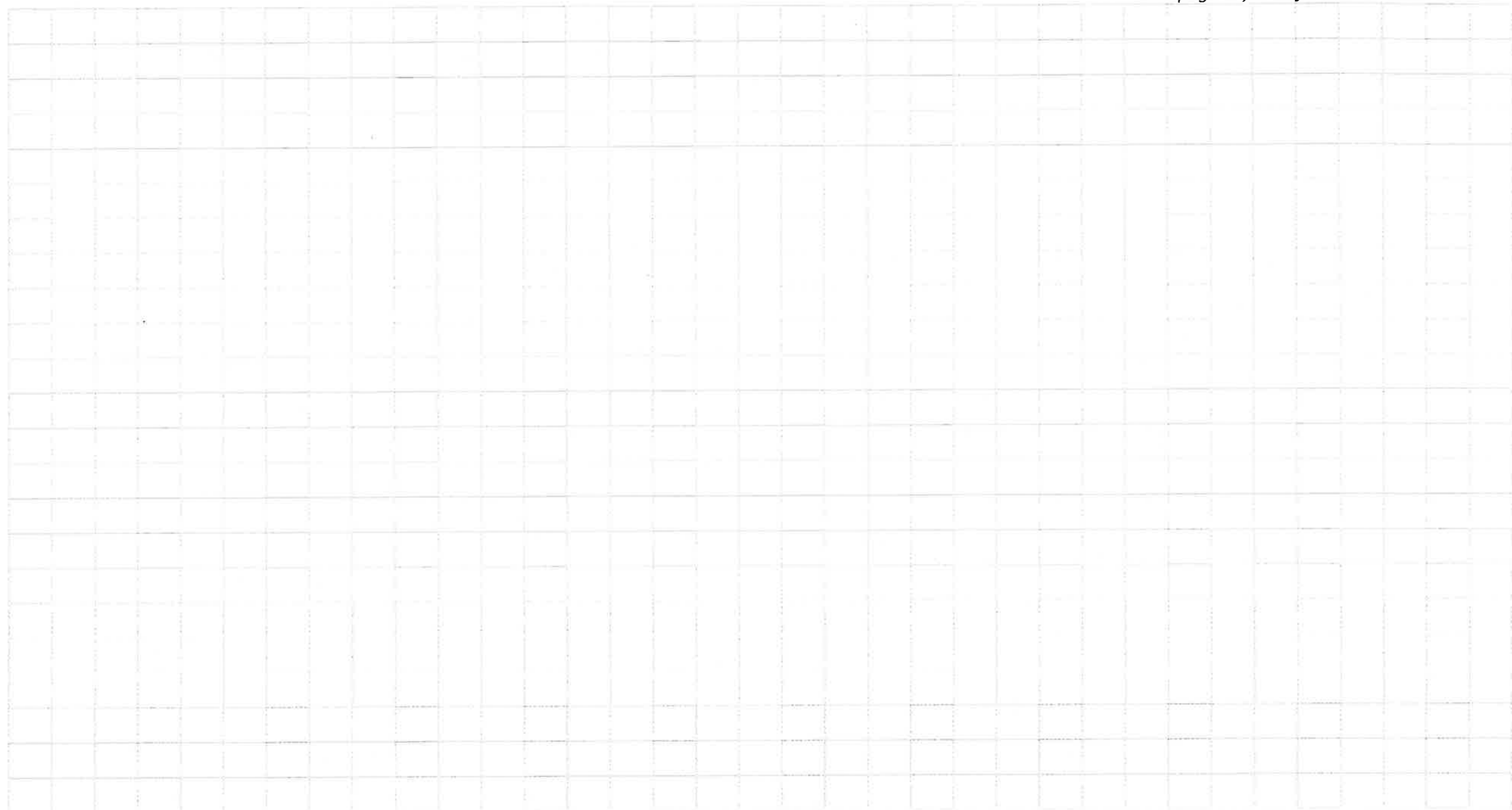
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This page is for any notes or observations



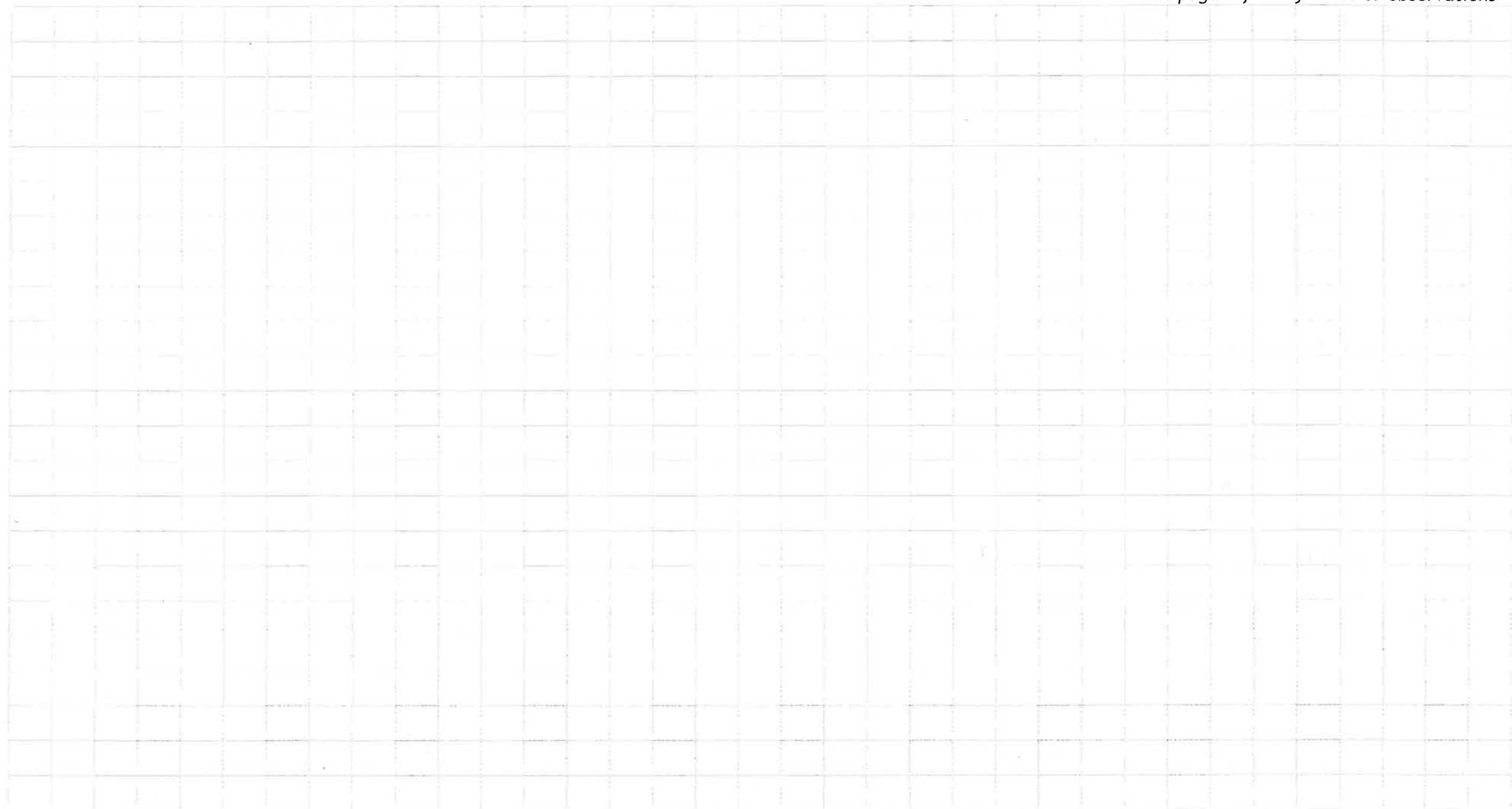
This page is for any notes or observations



DAILY SCIENCE LOG

Month Aug				Year 2008				Ship LSSL				Cruise ID 2008-30			
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							
				BOOK # 2		2008-30									
7	NE-1			Nets x 2						100					
7	NE-1			Ice Camp											Ice transects by Kristina, Alice + Coll
7	XCTD-080	23:20		XCTD			79°38,82N	140°00,48W	3766	1100			UU/MU		07012337
8	XCTD-081	02:04		XCTD			79°20,68N	139°47,25W	3733	1100			UU/MU		07012338
8	CB-16N	06:56	BE	ROS	50		79 0-359	139 57-989	3764		1053-1076		EE/WR		Rubble @ work
		08:10	BO				79 0-050	139 56-40Y		3759		24			2008 Aug 8, 08:08:08
		09:27	EN				78 59-622	139 55-973							Rosette @ 3653m.
8	XCTD-082	12:26		XCTD			78°30.655'N	140 06.694'W	3773	1100 3733			SH		07012343

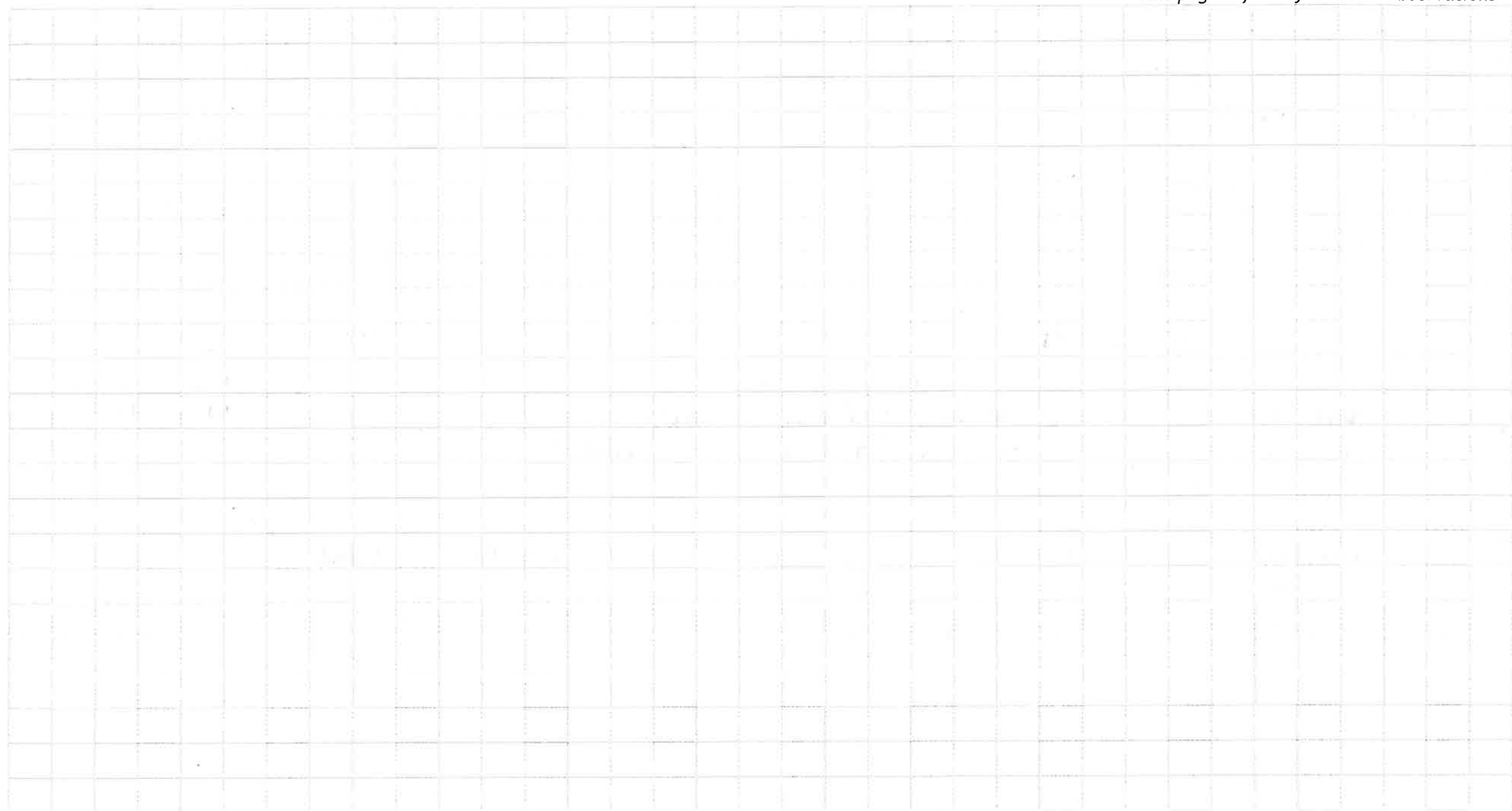
This page is for any notes or observations



DAILY SCIENCE LOG

Month		Year		Ship				Cruise ID							
August		2008		LSSL				2008-30							
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							
8	CB-16		BE	Ice Camp	Swiss	Chapelle									Buoys: ITP, IMBB, SAMS, AOFB
			EN												Ice Sample:
															Transects, Cores, Pys
8	CB-16			Net 500						100					2x100
8	CB-16	1957	BE	ROS	UN	51	78 0.744	139 54.330	3744		1077-1100	24	WW/SZ/WB		A+ ICE CAMP
		2109	BO				78 0.241	139 53.294	3742	3743					Bottom 2 bottles
		2236	EN				77 59.488	139 54.524	3743						are "calibration style"
9	XCTD-08504	04:37	Z	XCTD			77°35.81 N	140°57.28 W	3755	600 ~			WW/MG		09012342
09	CB-13	08:52	BE	ROS	UN	52	77 10.286	142 1.511	3754		1101-1124		EF/NB		
		10:05	BO				77 09.583	142 2.508		3751		24			
		11:14	EN				77 08.983	142 4.165							

This page is for any notes or observations



DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month August		Year 2008					Ship LSSL				Cruise ID 2008-30				
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							
9	CB-15		RE	MOR											WHOI-C
															Mooring Recovery
9	CB-15	2200	BE	ROS	US	53	76 59.563	139 57.162	3722		1125-1148	24	K.S./M.D.		Cs / I cast
		2222	BO				76 59.479	139 57.575		1000				✓	
		2254	EN				76 59.444	139 58.373	3719						
	CB-15			NETS x 2						100					
	CB-15			Zodiac Sampling		525							KB/SZ		0,5,10 m samples from Zodiac
10	CB-15	0047	BE	ROS	UN	54	76° 59.336'	139° 59.798'	3722		1149-1172	24	K.S./M.D.	✓	Intrusion / deep cast.
		0144	BO				76° 59.369'	140° 0.451'		3000					
		0242	EN				76° 59.434'	140° 0.865'	3720						
10	CB-15			ADCP											
10	CB-15	0345	BE	ROS	UN/US	55	76° 59.534'	140° 0.763'	3721	3716	1173-1196	24	K.S./M.D./SZ	✓	Full geochem. cast
			BO				76° 59.602	140° 0.040'							
		0500	EN				76 59.562	139 59.105							
10	XCTD-0284	09:39	2	XCTD			76 50.950	138 29.909	3694	1100			SN		07012381
10	XCTD-0285	12:14	2	XCTD			76 41.110	136 38.579	3688	1100			SN		07012604

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

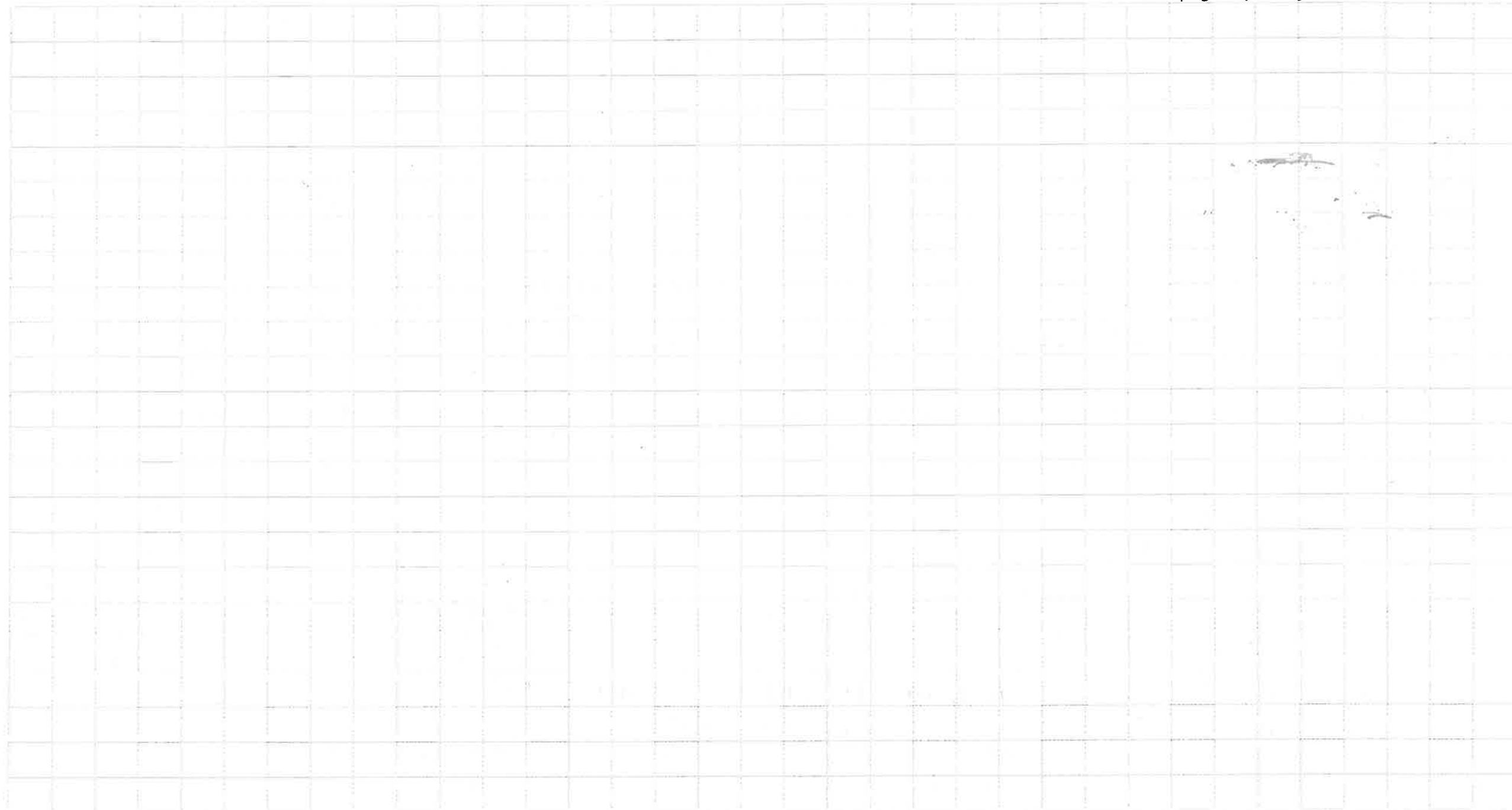
Notes:

Time Code:
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

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

This page is for any notes or observations



DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 4 of

Month <u>August</u>				Year <u>2008</u>			Ship <u>LSSL</u>				Cruise ID <u>2008-30</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							
10	PP-07	14:44	BE	ROS	UN	56	76 32.762	135 26.356	3566		1197-1220	24	ET/UN		Cesium Cast.
		15:04	BO				76 32.704	135 26.271		1000					
		15:47	EN				76 32.689	135 26.119							
	PP-07			NETSx2											
10	PP-07	16:18	BE	ROS	UN	57	76 32.675	135 25.903	3568		1221-1244				Sunny Morning!!
		17:28	BO				76 32.759	135 25.115		3560		24	ET/UN		Full Geochem
		19:22	EN				76 32.395	135 24.232	3563						WHOI testing release at bottom, up starts at 17:44
10	XCTD-086	22:33	2				76°18,81'N	134°15,285'W	1100	3402			WW		02012605
11	PP-06			NETSx2						100					
11	PP-06			ADCP											
11	PP-06	0245	BE	ROS	UN	58	76° 15.955'	132° 31.816'	3059		1245-1268	24	KS/MD/	✓	full geochem cast.
		0352	BO				76° 15.971'	132° 31.387'		3047					
		0451	EN				76° 16.127'	132° 31.464'	3065						

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:

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

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

CAST 57.

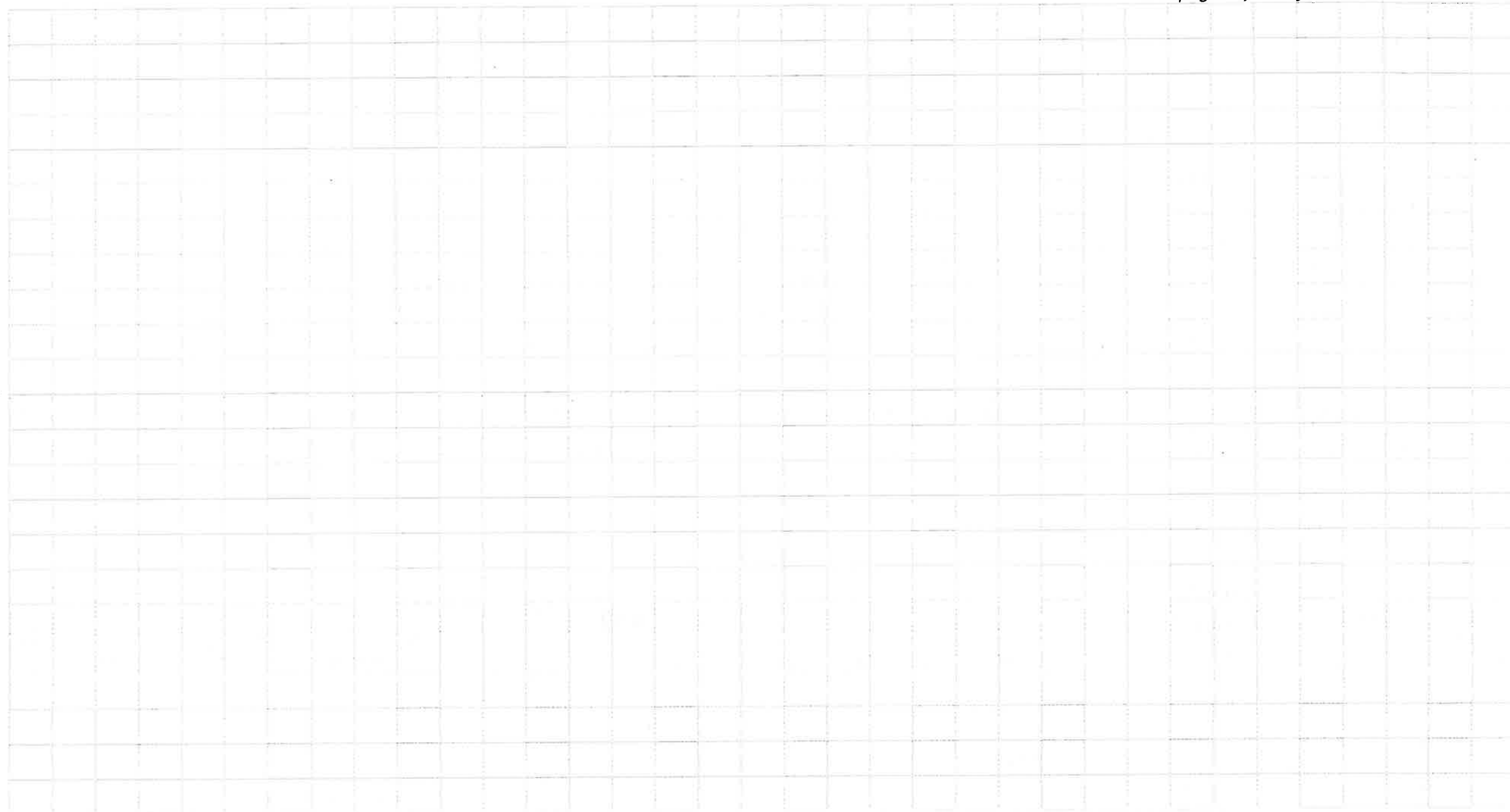
Aug. 10, 08

- we lost power to the winch @ 1850 utc and @ 61m. Data acquisition continued.
- we regained power @ 1911 utc and @ 61 m.
- winch operational @ 1912 utc.

DAILY SCIENCE LOG

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							
	PP-5	08:15		ADCP									Shige		
11	PP-5	08:21	BE	ROS	US	59	76 05226	130 52525	2476		1269-1288		ET/NB		Cesium Cast, Down to
		08:47	BO				76 05144	130 52370		1000		20			to 1000m. Mixer Dance
		09:22	EN				76 05011	130 52244							up 1, Dn 2, up 1.
11	PP-5	09:41	BE	ROS	UN	60	76 5033	130 52609	2471		1289-1312		ET/NB		Full Chem Cast
		10:42	BO				76 4952	130 53245		2454		24			
		11:28	EN				76 4862	130 53710							
11	XCTD-087	16:19	Z	XCTD			76 02209	133 09971	3180	1100			SN		07012601
11	XCTD-088	18:43	Z	XCTD			76°01,321	135°25,86W	3489	1100	02012602		WW/MJ		07012602
11	XCTD-089	22:40	Z	XCTD			76°01,421	137°42,63W	3681	1100			WW/MJ		07012603

This page is for any notes or observations



DAILY SCIENCE LOG

Month August		Year 2008		Ship LSSL		Cruise ID 2008-30									
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							
12	CB-17	0222	BE	ROS	UN	61	75° 57.034'	140° 4.934'	3703		1313-1336	24	KS/KY/MD/KZ		geochemistry cast.
		0336	BO				75 56.984	140 4.891		3696					
		0444	EN				75 56.988	140 4.748							
12	CB-17			ADCP											
12	CE-1	09:06	BE	ROS	UN	62	76 0.194	142 26.843	3744						
		10:00	BO				76 0.226	142 26.495		2500	1337-1360	24	BT/NB		
		10:54	EN				76 0.011	142 26.724							
12	XCTD-080	21:35	Z	XCTD			76° 30.61	140° 20.050	3687	1100			WD/MD		07012606
12	ICE CAMP	14:00		pumping/ + 1300 Ys ITP			75° 54.481	140° 35.344			8027-8031	5	AD/MD/BH		
	LAST CHANCE			XCTD									KB/SZ/GN		
12	CB-18			ADCP											
12	CB-18			NETSK						100					
12	CB-18	0009	BE	ROS	UN	63	75° 0.024'	140° 0.010'	3620		1361-1384	24	KS/MD/KY/WW		full geochemistry cast.
			BO				75 0.054	140 0.203		3617					
		0231	EN				75 0.023	139 59.81							

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=

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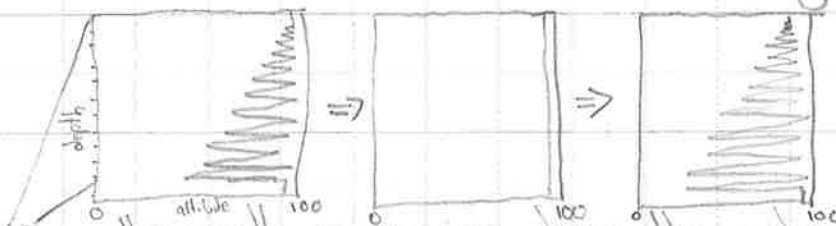
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After cast 60, a DOM sensor inspected for cause of drift in

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calibration. cleaned face and measured air V at $0.08181 \pm 0.00303V$ and 4.95238 with cap. cleaned both cable end connectors and bulkheads - air V $0.06105 - 0.06227V$ and $4.95238V$ with cap on.



Cast 61

- The allimeter plot is showing a regular pattern as the rosette is moving down the water column. It's position was adjusted slightly before the cast. Voltages remain in the normal range. → Worked fine in the end.

DAILY SCIENCE LOG

Month Aug				Year 2008				Ship LSS2				Cruise ID 2003-30			
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							
13	XCTD-081	07:54	Z	XCTD			74°38.65N	141°37.31W	3686	1100			WW/MD		07012588
13	CB-19	07:32		ADCP									SN		
13	CB-19	07:42	BE	ROS	UN	64	74 17-958	143 18-364	3693		1385-1408		ZH/WD		
		08:54	BO				74 17-939	143 18-863		3688		24			
		10:03	EN				74 17-933	143 18-641							
13	CB-19			NETS						100					
13	XCTD-082	12:01	Z	XCTD			74°09'28.2"N	141°43.150'W	3694	3199			SN		07012599
	CB-21			NETS						100			XY/WW		2x100m
13	CB-21		RE	MOR											
13	CB-21	1915	BE	CTD	-	#756 CAST 1	74 0.079	139 54.838	3503		-	-	MD/WW/sz		Test cast
		2015	BO				74 0.241	139 55.931		3500					for spare CTD
		2110	EN				74 0.469	139 56.776							slw 756

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← CTD lowered bare in frame w/ weight attached, in vertical orientation.
Profile looks good - only 2xT, 2xC, no aux sensors. Used 2004 calibration file.

DAILY SCIENCE LOG

Month August				Year 2008				Ship LSSL				Cruise ID 2008-30			
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							
13	CB-21			Zodiac											1, 5, 10m Surface Samples from Zodiac
13	CB-21		BE EN	Pump Cast											
14	CB-21	0349	BE	ROS	UN	65	74 1.944	140 0.150	3519		1409-1432	24	MD/WW/sz		Geochem Cast
		0458	BO				74 1.993	140 0.296		3505					
		0606	EN				74 1.974	140 1.384							
				ADCP											
				NETS						1000					
14	CB-21	11.24	BE	ROS	UN/US	66	74 0-600	139 56-942	3506		1433-1449				Calibration dance cast
		12-01	BO				74 0-601	139 56-915		2000					2000 m only
		13-08	EN				74 0-715	139 56-645							
14	CB-21			ADCP											

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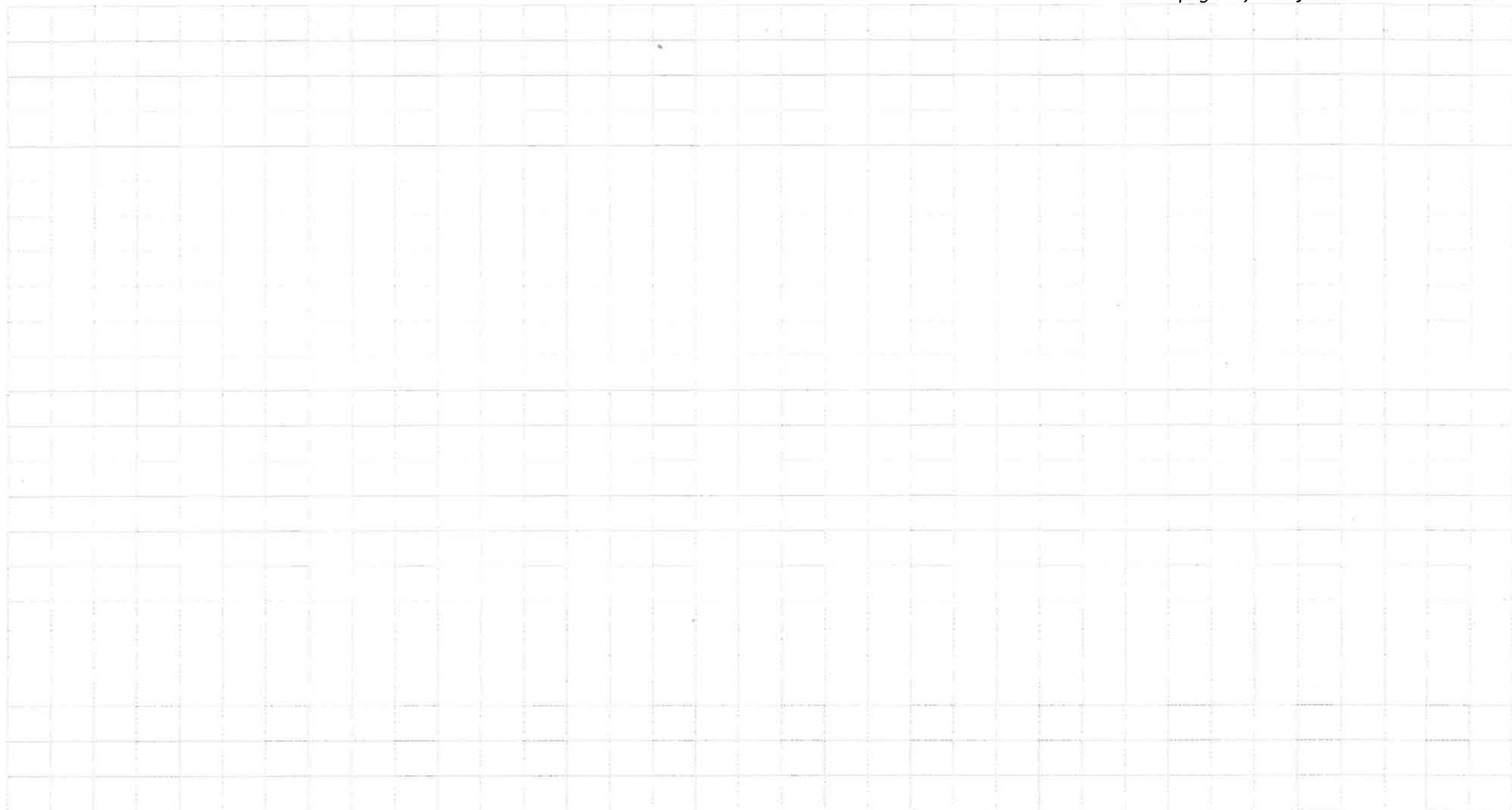
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DAILY SCIENCE LOG

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Month <u>August</u>				Year <u>2008</u>			Ship <u>LSSL</u>				Cruise ID <u>2008-30</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							
<u>14</u>	<u>XCTD-093</u>	<u>21:26</u>	<u>Z</u>	<u>XCTD</u>			<u>73°44.68</u>	<u>138°01.88W</u>	<u>3381</u>	<u>1100</u>			<u>WD/MD</u>		<u>07012585</u>
<u>14</u>	<u>CB-22</u>	<u>2311</u>	<u>BE</u>	<u>ROS</u>	<u>UN</u>	<u>67</u>	<u>73 27.001</u>	<u>137 59.990</u>	<u>3127</u>		<u>1450-1473</u>	<u>24</u>	<u>MD/WW/</u> <u>KY/SZ</u>		
<u>15</u>		<u>0016</u>	<u>BO</u>				<u>73 27.011</u>	<u>137 59.876</u>		<u>3116</u>					<u>-app. 3m off bottom.</u>
<u>15</u>		<u>0112</u>	<u>EN</u>				<u>73 27.00</u>	<u>137 59.966</u>							
	<u>CB-22</u>			<u>Nets</u>											
	<u>CB-22</u>			<u>ADCP</u>											
<u>15</u>	<u>XCTD-094</u>	<u>03:05</u>		<u>XCTD</u>			<u>73°13.84N</u>	<u>138°58.11SW</u>	<u>3188</u>	<u>1100</u>			<u>WD/MD</u>		<u>07012586</u>
<u>15</u>	<u>CB-27</u>			<u>ADCP</u>											
<u>15</u>	<u>CB-27</u>	<u>0513</u>	<u>BE</u>	<u>ROS</u>	<u>UN</u>	<u>68</u>	<u>73° 0.037'</u>	<u>139° 59.878'</u>	<u>3221</u>		<u>1474-1497</u>	<u>24</u>	<u>KS/MD/KY/WW</u>	<u>✓</u>	<u>-very foggy and cold</u>
		<u>06:26</u>	<u>BO</u>				<u>72 59.946</u>	<u>139 59.917</u>		<u>3203</u>					
		<u>07:26</u>	<u>EN</u>				<u>72 59.876</u>	<u>140 00.019</u>							
<u>15</u>	<u>CB-27</u>			<u>NETS</u>						<u>100</u>					
<u>15</u>	<u>XCTD-095</u>	<u>09:36</u>		<u>XCTD</u>			<u>72 32.157</u>	<u>141 31 793</u>	<u>3326</u>	<u>1100</u>			<u>SN</u>		<u>07012600</u>
<u>15</u>	<u>XCTD-096</u>	<u>11:34</u>		<u>XCTD</u>			<u>72 44.208</u>	<u>143 05 860</u>	<u>3381</u>	<u>1100</u>			<u>SN</u>		<u>07012597</u>
<u>15</u>	<u>XCTD-097</u>	<u>13:39</u>		<u>XCTD</u>			<u>72 36.004</u>	<u>144 41 918</u>	<u>3436</u>	<u>1100</u>			<u>SN</u>		<u>07022647</u>

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Notes: _____

Time Code:

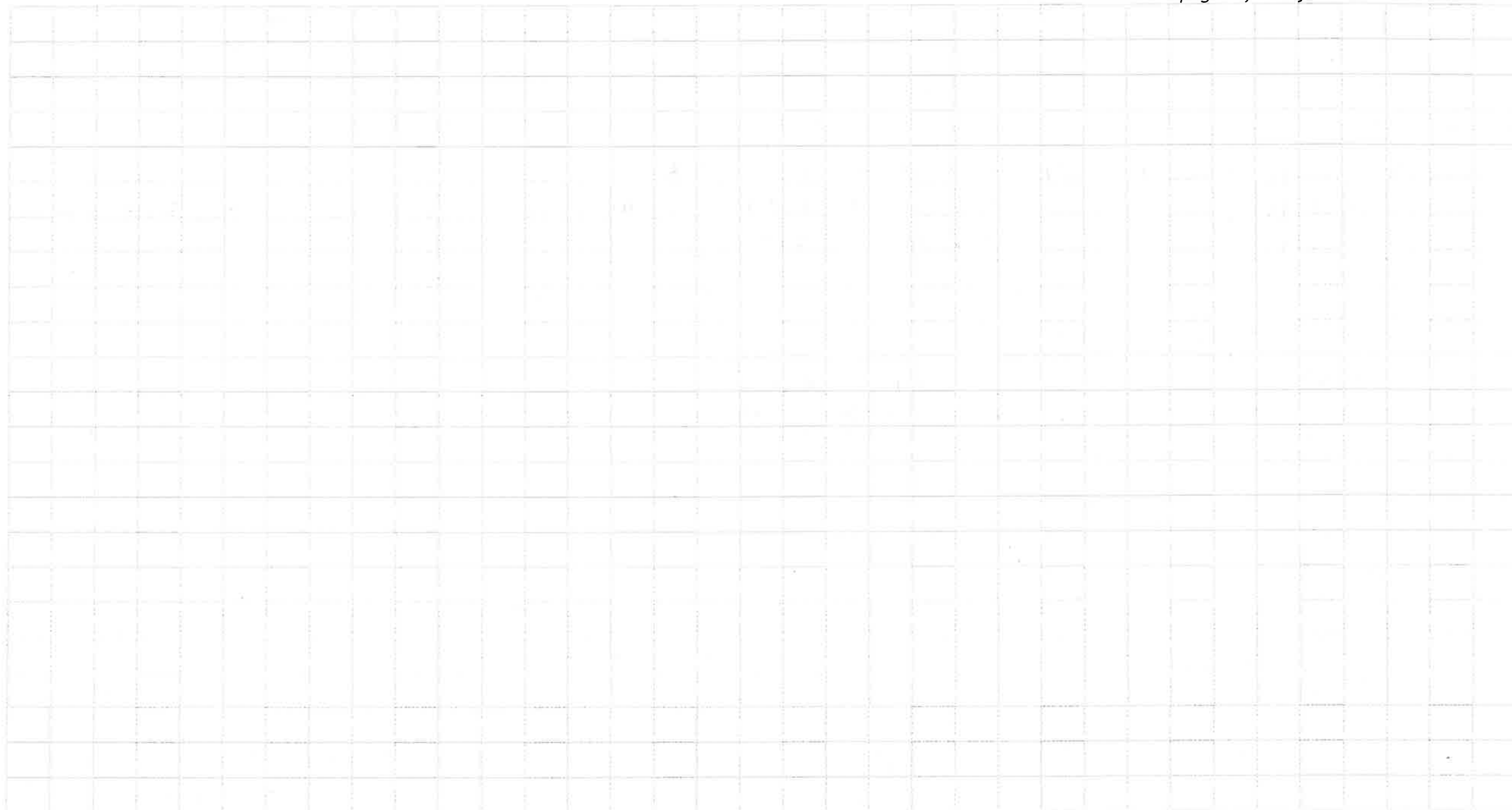
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Month <u>Aug</u>				Year <u>2008</u>			Ship <u>USS</u>				Cruise ID <u>2008-30</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
15	Stn-A			ADCP											
15	Stn-A	14.06	BE	ROS	US	69	72 36.048	144 41.795	3428						Cesium Cast.
		14.27	BO				72 36.076	144 41.711		1000	1498-1521	24	ET/MB		Down to 1000 m.
		15.06	EN				72 36.088	144 41.690							
15	Stn-A	15.43	BE	ROS		70	72 36.050	144 42.001	3429						Full Geochem.
		16.52	BO				72 36.004	144 41.990		3419	1522-1545	24	ET/MB		
		1758	EN				72 36.024	144 42.205	3429						
15	XCTD-098	20:07	Z	XCTD			72 21.470	142 59.214	3293	1100			SN		07022646
15	XCTD-099	22:10	Z	XCTD			72°06,803	141° 15,82	3846	1100			WV/MD		07022686
16	XCTD-100	02:07	Z	XCTD			71°33,82	138° 10,98 W	2254	1100			WV/MD		07022699
16	XCTD-101	04:12	Z	XCTD			71°25,24	136° 32,12 W	1633	1100			WV/MD		07022685
16	XCTD-102	07:31	Z	XCTD			71° 07.482	134° 34.711W	530	530			SN		07022643.

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- no water in bottle 24, bottle 24 is tripped, string attached to bottom cap caught on ADCP, Hence bottom cap was open - no water.

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34

4 IXSEA AR861 acoustic releases stopped onto rosette frame for deep acceptance test (2690m). ~20 min test at bottom of cast.

C+D Block could use service. $\Rightarrow$ lube? payout is jumpy might be wearing on rollers

