# DAILY LOG BOOK

**MISSION NUMBER** 2005-04

**DATE:**

**VESSEL:**

**PROJECT:**

From: Resolute 29 July 2005 to: 1 September 2005

CCGS Louis S St-Laurent

JWACS 2005 / BGFE

JOIS

INSTITUTE OF OCEAN SCIENCES
OCEAN SCIENCES AND PRODUCTIVITY DIVISION
SIDNEY, BC, CANADA

The format for labels is:

| | |
|---|---|
| Sample number | 001 |
| Sample type | ALK |
| Station name | LG01 |
| Cruise ID | 2002-12 |
| Bottle number | BOT 1 |

Captain: _____ First Officer: _____
Second Officer: _____ Third Officer: _____

Mission Participants / Agencies: _____

**Scientific Personnel**: Party Chief: _____

| Name | Watch | Cabin | Name | Watch | Cabin |
|---|---|---|---|---|---|
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**Second leg of Mission:** Party Chief: _____

| Name | Watch | Cabin | Name | Watch | Cabin |
|---|---|---|---|---|---|
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**Data logging computer**: _____
**Data acquisition program**: _____
CTD deck unit make: _____ model: _____ serial number: _____

**Primary CTD**

Make: _____ model: _____ serial number: _____
**P**rimary temperature serial number: _____
Primary conductivity serial number: _____
**S**econdary 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: _____
**P**rimary temperature serial number: _____
Primary conductivity serial number: _____
**S**econdary 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: _____ (Ocean Test Equip., General Oceanics, IOS)
Volume of bottles (litres): _____

**Winches:**

1. Make: _____ model: _____ serial #: _____ used for: _____
2. Make: _____ model: _____ serial #: _____ used for: _____
3. Make: _____ model: _____ serial #: _____ used for: _____
4. Make: _____ model: _____ serial #: _____ used for: _____
5. Make: _____ model: _____ serial #: _____ used for: _____
6. Make: _____ model: _____ serial #: _____ used for: _____
7. Make: _____ model: _____ serial #: _____ used for: _____

Comments: _____

**Salinometer**: make: _____ model: _____ serial number: _____
Comments: _____

**Thermosalinograph System**:
Program: _____ Version: _____
Sampling interval (seconds): _____
Fluorometer sensor serial number: _____
Comments: _____

**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: _____

Comments:

(E)

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 at Tom Juhasz's office (room 1221).

**Please 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.** _____ | **1.** _____ |
| **2.** _____ | **2.** _____ |
| **3.** _____ | **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 (Tom Juhasz at 250-363-6598).**

**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:**

_____
_____
_____
_____
_____
_____
_____
_____
_____

Date of cable termination: _____

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Actual diameter measurements, two locations in triplicate at termination and approximately 5 metres back from termination.

| At cable end: | at 5 metres: |
|---|---|
| **1.** _____ | **1.** _____ |
| **2.** _____ | **2.** _____ |
| **3.** _____ | **3.** _____ |

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Nominal .316" should be .3155 to .3165"
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Inner armour to conductor 3 _____

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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:**

_____
_____
_____
_____
_____
_____
_____
_____
_____

(6)

# DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

**Month** | **Year** | **Ship** | **Cruise ID**

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position | | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Latitude | Longitude | | | | | | | |
| 4 | CABOS | 10:28 | BE | ROS | US | 10 | 74 45 90 | 131 51 55 | 1120 | 1000 | 74 - 91 | 18 | | | |
| | | | | | | | | | | | | | | | |
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Cast type:
BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up / stop
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

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

Furuno GPS - standalone ⇒ Heater

# DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

**Month** July **Year** CAST/ **Ship** Louis S St Laurent **Cruise ID** 2005-04

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position N Latitude | Position W Longitude | Bottom Depth | Max Depth (m) | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 29 | X | 1017 1 | 4 | ~~ROS~~ Weight | | — | | | | | | | | | |
| 29 | 1 | ~~1625~~ 1125 1 | 4 | ROS | UN | 1 | 74 15.88 | 95 22.34 | ~200 | | 1 - 8 | 24 | DS/SZ MH | NO | All bottles closed to check for leaks NOT sampled off for ~2 hrs |
| 31 | 2 | ~~925 +4~~ | | ROS | UN | 2 | 68° ~~52.4~~ 35.7' | 101° 26.~~5~~ 61' | Bridge 410-7 | | 9 - 13 | 5 | DS/SZ/MH | No | Victoria Strait |
| 31 | 3 | ~~1710~~ | | ROS | UN | 3 | 68° ~~42.37~~ 42.1' | 102 45.~~8~~ 78' | Bridge 106-9 | | 14 - 18 | 5 | DS/SZ/MH | No | " " " |
| 31 | 4 | ~~2010~~ 2110 | BE | ROS | UN | 4 | 68 42.0 | 103 46.2 | (GPD) 103 | 105 | 19-24 | 6 | DS/SZ MH | No | 6900 scan " " |
| | | | | CAMBRIDGE BAY Pick Up Science Team 01 August | | | | | | | | | | | |
| AUGUST | | | | | | | | | 641 | | | | | | |
| 3 | AGS | 1147 | BE | ROS | UN | 5 | 70 33.10 | 122 54.26 | ~~638~~ | 638 | 25-45 | 21 | ~~KW~~ SZ/DS | Yes | communication error on upcast not sure |
| | | | | | | | | | 1092 | | | | | | |
| 4 | CABOS | 0455 | BE | ROS | UN | 6 | 71 46.11 | 131 49.07 | 1100 | 1093 | 46-68 | 23 | JE/WW | Yes | |
| 4 | CABOS | 0915 | BE | NET | | N1 | 71 46 99 | 131 52 44 | 1100 | 100 | | | H.M/JC/WB | | BONGO |
| 4 | CABOS | 0831 | BE | NET | | N2 | 71 46 88 | 131 54 94 | 1100 | 100 | | | " | | 2.0 BONGO |
| 9 | CABOS | 09 37 | BE | ROS | US | 7 | 71 46 25 | 131 52 01 | 1948 | 500 | 09-73 | 5 | | | Bottle flushing test cast |

Cast type:
BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up / stop
UN = up / no stop
DN = down / no stop

Time Code
BE = beginning time of cast
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MR = messenger release time
RE = recover mooring time

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

Cast / Event 5

← not sure where bottle 9 really tripped. Bottle file missing tag for bottle 9. May have been caused by cross talk btw "talk back" system + CTD cable.

Aug 2/3 clocks moved back 1 hr at midnight ∴ Local is -5 UTC

Aug 3/4 clocks moved back 1 hr at midnight Local is -6 UTC

**DAILY LOG** Ocean Sciences and Productivity Division **INSTITUTE OF OCEAN SCIENCES**

| Month | | | | Year | | | Ship | | | | | | Cruise ID | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
| 4 | CABOS | 10:28 | BE | ROS | UN | 8 | 7145.80 | 131 51.55 | 1120 | 1000 | 74-91 | 18 | WW HM | ? | Bottle flushy test cast |
| 4 | CABOS | | | MOR | RE | M1 | | | | | | | | | |
| 4 | XCTD 1 | 17:33 | BE | XCTD-3 | | XCTD - | 71°42.030 | 132° 34.000 | 1200 | 1100 | | | | | |
| 5 | XCTD 2 | 03:08 | BE | XCTD-1 | | XCTD - | 71°11.073 | 134°57.800 | 750 | 784 | | | | | Tach the bottom 784 |
| 5 | XCTD 3 | 08:38 | BE | XCTD-1 | | XCTD - | 70° 56.578 | 137° 23.194 | 1450 | 1100 | | | | | |
| 5 | ~~CB2~~/CB-28B HA | | BE | ROS | UN | 9 | 70° 35.10 | 139 59.80 | 871 | 866 | 92 - 112 | 21 | WW | ✓ | |
| 5 | ~~EB-TA~~ CB-20A | 17:36 | BE | ROS | UN | 10 | 70 59 98 | 139 59 98 | 2079 | 2073 | 113-136 | 24 | HM WW | VV | 1st scan 6000 |
| | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | |
| 5 | XCTD 4 | 21:06 | BE | XCTD-1 | | | 70°59.977 | 141° 29.951 | 2526 | 1100 | | | | | Fog |
| | | | | | | | | | | | | | | | |
| 5 | XCTD 5 | 23:31 | BE | XCTD-1 | | | 71°00.010 | 142° 59.810 | 1400 | 1100 | | | | | Fog |
| | | | | | | | | | | | | | | | |
| 6 | XCTD 6 | 01:47 | BE | XCTD-1 | | | 70°59.895 | 144°29.994 | 600 | 653 | | | | | Fog touch bottom |
| | | | | | | | | | | | | | | | |

Cast type:
BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up / stop
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

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

REPLACED BOTH SHAFT 'O' RINGS ON SPIGOT SHAFTS OF OCEANTEST BOTTLES #7 + #8 ON ROSETTE

**DAILY LOG** — Ocean Sciences and Productivity Division — INSTITUTE OF OCEAN SCIENCES

**Month** AUGUST **Year** 2005 **Ship** L S St LAURENT **Cruise ID** 2005-04

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | XCTD 7 | 09:19 | BE | XCTD-3 | | | 70° 59.895 | 146° 01.976 | 1400 | 1100 | | | | | |
| 6 | XCTD 8 | 06:58 | BE | XCTD-3 | | | 71° 06.655 | 147° 29.565 | 1050 | 1073 | | | | | Fog touch bottom |
| 6 | BS3A | 2022 | BE | CTD | n/a | 011 | 71° 21.89 N | 151° 58.23 W | 89 | 90 | — | 0 | JE | ✓✓ | CTD only, st scan 7600 |
| | | | | | | | | | ↑ | ships sounder ~4-9m null corr. | | | | | |
| | | | | | | | | | | water depth 90→7x'+ fr. | | CTD | | | st,end press -0.1/-0.1 |
| | | | | | | | | | | | | | | up- | pump off @ 5m to avoid ice crystals. |
| 7 | BS3 | 0132 | BE | ROS | UN | 012 | 71° 23.87' N | 151° 59.77' W | 150 | 150 | 137-146 | 10 | JE/DS/R | ✓ | comm errors on bf |
| | | | | | | | | | | +6 | | | | | fire #4,5,6 |
| 7 | BS3-B | 0448 | BE | ROS | US 3min | 013 | 71° 34.79' N | 151° 31.05' W | >1500 | 1000 | 147-166 | 20 | JE/DS/R,A | ✓✓ | for Cesium & I129 |
| 7 | BS3-B | 10:58 | BE | ROS | UN | 014 | 71° 37.47 N | 151° 29.35 W | >1500 | 1513 | 167-187 | 21 | | ✓ | |
| 7 ~~8~~ | XCTD-9 | 02:39 | BE | XCTD-3 | | | 72° 28.836 N | 149° 53.753 W | 3600* | 1100 | | | | | ship stop |
| 7 ~~8~~ | BS3-C | 14:45 | BE | ROS | UN | 015 | 71° 47.75 | 150° 50.43 | 2462 | 2456 | 188-210 | 23 | | | 2 flds |
| | | | | | | | | | | | | | | | |
| 7 ~~8~~ | XCTD-10 | 14:40 | BE | XCTD-3 | | | 73° 29.923 | 150° 00.469 | 3800* | | | | | | ship stop |

Cast type:
BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up / stop
UN = up / no stop
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Time Code
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Transmissometer to be cleaned for each cast, do not use Ammonia products

Aug 6. CTD connectors removed & checked - all OK. Altimeter attached more firmly, move vertically

Aug 6 transmissometer test: rinsed w/ ship's water, dried w/ kimwipe

| | | | |
|---|---|---|---|
| Blocked | 0.04 | 0.04 | % |
| Open | 90.2 | 90.2 | |

Aug 7 · cast 14 first try: stopped at ~250m due to spikes in data and bottle 25 ~~fired~~ although it had not been fired. had fire confirmation on surface, the program timesout + does not start.

Doug checked pylon cable + found green on cable end of the connector to the CTD.

~~The~~ cable replaced but error

Pylon, carousel changed out

# DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

**Month** Aug **Year** 2005 **Ship** Louis St-Laurent **Cruise ID** 2005-04

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | BS3-D | 1920 | BE | ROS | UN | 016 | 72° 00.22'N | 150° 00 02'W | 3108+8 | 3108 | 211-234 | 24 | JE/DS/MH | ✓ | Bottle 4 didn't close |
| 8 | CB 2 | 0826 | BE | ROS | UN | 017 | 73°00,2'N | 149° 58,45'W | 3820 | 3564 | 235-258 | 24 | | | |
| 08 | CB3 | 2113 | BE | ROS | 2min US | 018 | 74° 00.22'N | 149° 57.54'W | | 1200 | 259 – 278 | 20 | JE/DS/MH | ✓✓ | Cesium cast |
| 09 | CB3 | 0257 | BE | CTD | ~~UN~~ | 019, 19a | 74° 11.23'N | 149° 44.99'W | 3830 | 900 | ~~/~~ | 0 | JE/DS/HM | ✓ | DO sensor readout stuck |
| | | 0342 | BE | ROS | UN | 019b | 74° 11.39 | 149° 44.51 | 3830 | 3812 +6.5 | 279-302 | 24 | | | repeat 19 → see next page |
| 9 | XCTD-11 | 08:50 | BE | XCTD-3 | | | 74° 29.96 | 150° 00.12 | 3800* | 1100 | | | | | Ship stop |
| | CB4 | | | MOR | RE | M2 | | | | | | | | | |
| 10 | CB4 | 00:02 | BE | NET | — | N3 | 74 58.170 | 149 55.819 | — | 100 | | | DS/MS | | Nets rinsed inside, need to redo |
| 10 | CB4 | 00:11 | BE | NET | — | N4 | 74 58.75 | 149 55.819 | - | 100 | | | DS/MS | | |
| 10 | CB4 | 0044 | BE | ROS | UN | 20 | 74° 58.79'N | 149° 56.09'W | 3830 | 3820 +4.5 | 303-326 | 24 | JE/DS/HM/R | ✓ | |

Cast type:
BOT = bottle cast, no CTD
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ROS = Rosette plus CTD
USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up / stop
UN = up / no stop
DN = down / no stop

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

After BS3D

- CHANGED BOTH TOP 'O' RINGS ON BOTTLE #3 - HAS BEEN PROBLEM INTEGRITY

- Before CB3 check transmissometer cable, reseat both ends, Both ends were clean & dry

- Cast 19 : At 600m, switched seasave overlay windows & noticed Do value was constant at 6.15 Brought up new fixed display & when it popped up, Do value changed - but stayed constant at new value Repeated behavior Stopped rosette @ 900m, rebooted PC & brought rosette back to the surface to start a clean cast. Files 19, 19a, 19b are 0-900m, 900-0m, 0-3812-0m Post processing showed that the Do data was being stored properly; the problem was with the display

Comm error when bottle 1 was tripped, but because we were using User Input fire it was tripped a second time with no error.

**DAILY LOG** Ocean Sciences and Productivity Division **INSTITUTE OF OCEAN SCIENCES**

| Month | | | | Year | | | Ship | | | | | | Cruise ID | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
| 10 | XCTD-12 | 06:17 | BE | XCTD-3 | | | 75° 08.51 | 151° 33.07 | 3800 | 1020 | | | | | ship stop CUT |
| | CB-5 | 10:13 | BE | ROS | UN | 21 | 75° 16.66 N | 153° 14.83 W | 3843 | 3838 | 327 - 332 | 11 | HL/WH | ?? | |
| 10 | CB5A | 1748 | BE | ROS | UN | 22 | 75° 34.31 N | 155° 33.63 W | 3846 | 3836 +6 | 338 - 361 | 24 | JE/DS/HM/R | ? | |
| 10 | CB5B | 2322 | BE | CTD | — | 23 | 75° 37.15 N | 156° 09.83 W | 2130 | 2088+6 | — | 0 | JE/DS/HM/R | ✓ | st scan 2000 |
| | | | | | | | | | | | | | | | air press 0.0/0.0 |
| | | | | | | | | pause @ 35m off | bottom to | test release. | | | 1st time through, no caused comm. | | |
| 11 | CB5B | 0049 | EN | | | 23 | 75° 37.09 N | 156° 10.34 W | | | | | | | |
| 11 | XCTD-13 | 0431 | BE | XCTD-3 | | | 75° 26.995 | 154° 29.039 | 3800 * | 1100 | | | | | ship stop |

Cast type:
BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up / stop
UN = up / no stop
DN = down / no stop

Time Code
BE = beginning time of cast
BO = bottom time of cast
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DE = deployment time
MR = messenger release time
RE = recover mooring time

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



2050 - 2080

Between casts 22 (CBSA) & 23 (CBSB)

- deck unit switched out
- acquisition computer switched out
- AUX1 & AUX2 channels (trasmissometer and altimeter) switched
- Transmissometer test after switch showed slow ~1-25 response time; full scale of at most 89.5 & mostly less ~ 84.4.
- Issues setting up new PC — configure seasave on Start Acquire screen for comm ports
  - CTD Data — Comm 1
  - CTD Data Baud 19200 ← critical, was 9600.
  - Deck Unit Modem Port Comm 2
- CTD Lab Electronics had been plugged into unfiltered ship's power, not UPS.
- Transmissometer showed same pattern of offset blw 260 & 320 m on downcast.

# DAILY LOG — Ocean Sciences and Productivity Division — INSTITUTE OF OCEAN SCIENCES

**Month** | **Year** | **Ship** | **Cruise ID**

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | CB-6 | 1345 | BE | ROS | UN | 24 | 74 45.205 | 147 45.094 | 3805 | 3797 | 362-385 | 24 | SZ DS | X | → |
| | | | | | | | | | from sounder 12kHz portable | | | | | | |
| 12 | XCTD-14 | 09:13 | BE | XCTD-3 | | | 74° 52.86 | 148° 59.84 | 3800+ | 1100 | | | | | ship stop |
| 12 | CB5/4 | | | NET | | N5 | | | | | | | | | |
| * 12 | CB5/4 | | | NET | | N6 | | | | | | | | | |
| | CB5/4 | | DE | MOR | | M3 | | | | | | | | | WHOI - A |
| 12 | CB5/4 | 2157 | BE | ROS | UN | 25 | 74° 59.29'N | 149° 52.45'W | ~3840 | 900 | 386-409 | 24 | DE/DS/HM/RN | ✓ | Intrusion study |
| 13 | XCTD-15 | 03:04 | BE | XCTD-3 | | | 75° 29.353N | 149° 53.916 W | 3800+ | 1100 | | | | | ship stop |
| 13 | CB 7 | 08:14 | BE | ROS | UN | 26 | 75° 59,308N | 149°57,898W | 3829 | 3821 | 410-433 | 24 | | | |
| 13 | XCTD-16 | 13:29 | BE | XCTD-3 | | | 76° 19.89 | 149° 59.51 | 3800+ | 1100 | | | | | ship stop |
| 13 | XCTD-17 | 16:25 | BE | XCTD-3 | | | 76° 39.76 | 149° 58.44 | 3800+ | 1100 | | | | | ship stop |

Cast type: BOT = bottle cast, no CTD; CTD = CTD without Rosette; ROS = Rosette plus CTD; USW = sea water loop; MOR = mooring; NET = net haul; DRF = drifter

bottle firing method: US = up / stop; 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

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Daily_log_book.doc

* correction made 18 sept05, SZ, samples for nets + rosette ~~CB5~~ still have 'CB5' listed. Original Rosette log sheet ~~corrected~~ was correct. CTD files corrected.

Transmissometer, LADCP, altimeters not collecting data on 4hrs cast.
Oxygen sensor data are still low.
~~Trans~~ 3 releases on frame. Tested @ 3750 all opened successfully.
We suspect the altimeter was interfering w/ the release test yesterday which is why it and the LADCP were turned off. Frequency's are much different but...?
Cast started on deck but first record is at 10 db??

Ship maintenance after CB-6. We shut down for ~8hrs, then steamed back to mooring site for a.m. deployment. (Deployed 6 min after same cast last yr).

← bottle 7 did not close. It was fired 2x from lab w/ confirmation on second attempt, but clearly did not let go.
Transmissometer did not have any of its prior spikes @ 300-400m. Repositioning has worked! Sensitive to +- gradient? Optical properties Δ?

**DAILY LOG** — Ocean Sciences and Productivity Division — **INSTITUTE OF OCEAN SCIENCES**

**Month** AUGUST | **Year** 2005 | **Ship** LOUIS S. ST. LAURENT | **Cruise ID** 2005-04

| | Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 13 | CB8 | 1921 | BE | ROS | UN | 27 | 76°59.34'N | 150° 00.95'W | 3830 | 3800 | 434-457 | 24 | JE/DS/HM RN | V | Bottle 8 replaced before cast. |
| | | | | | | | | | | | | | | | | Sscan 7900 Altimeter off. |
| | 14 | XCTD-18 | 00:40 | BE | XCTD-3 | | | 77°19.712 | 150°01.969 | 3800* | 1100 | | | | | Ship stop |
| | 14 | XCTD-19 | 03:41 | BE | XCTD-3 | | | 77°38.447 | 150°03.440 | 3800* | 1100 | | | | | ship stop |
| * | 14 | CB-9 | 06:50 | BE | NET | | N7 | 78 00 | 149 50.6 | | 100 | | | HM | | formalin cast |
| | 14 | CB-9 | 07:20 | BE | NET | | N8 | 78 0.045 | 149 50.478 | | 100 | | | HM | | ethanol cast |
| | 14 | CB-9 | 07:40 | BE | ROS | UN | 28 | 78°0,12 | 148° 50,21 W | 3824 | 3816 | 458-481 | 24 | | | sscan 9500 |
| | 14 | CB-9 | | RE | MOR | | | | | | | | | | | |
| | 14 | XCTD-20 | 21:36 | BE | XCTD-3 | | | 78° 19.420 | 150° 00.807 | 3800* | 1100 | | | | | ship stop |
| | 15 | XCTD-21 | 00:58 | BE | XCTD-3 | | | | | | | | | | | |

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log sheet [illegible] was correct

# DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

**Month** AUGUST **Year** 2005 **Ship** LOUIS ST. LAURENT **Cruise ID** 2005-04

| Day | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position Latitude | Position Longitude | Bottom Depth | Max Depth | Sample Numbers | # of Bottles | Watch keepers | Trans. cleaned | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | CB11 | 0336 | BE | ROS | US | 29 | 78°58.34N | 149°59.67'W | 3831 | 800 | 481-492 | 12 | JE/DS/MH/RN | ✓ | Cesium cast<br>35CAN 10000 |
| 15 | CB11 | 0453 | BE | ROS | UN | 30 | 78°58.51N | 149°59.71'W | 3831 | 3812 +6 | 493-516 | 24 | JE/DS/MH/RN | ✓ | |
| 15 | Ice_Hw1 | 10:18 | BE | CTD | — | 31 | 78°51.842 | 150°28.276W | 3830 | 3810 | — | — | | | deck pressure 0.0<br>9500 scan -0.1 |
| 16 | XCTD-22 | 02:17 | BE | XCTD-3 | | | 78°42.65 | 151° 06.50 | 3825 | 1100 | | | | | ship stop |
| 16 | XCTD-23 | 04:46 | BE | XCTD-3 | | | 78° 34.192 | 151° 46.840 | 3835 | 1100 | | | | | ship stop |
| 16 | XCTD 24 | 06:53 | BE | XCTD-3 | | | 78 25 27 | 152 36 66 | 3840 | 1100 | | | | | SHIP STOPPED |
| 16 | CB10 | 08:55 | BE | ROS | US | 32 | 78°17,242 | 153° 14, 90W | 2450 | 800 | 517-528 | 12 | | | Cesium cast |
| 16 | CB10 | 10:21 | BE | ROS | UN | 33 | 78°17,107 | 153° 15,142W | 2504 | 2496 | 529-552 | 24 | | | |
| 16 | CB10a | 16:10 | BE | CTD | — | 34 | 78 15,685 | 153°56,898 | 2946 | 937 | — | — | | | Pressure 0.0 scan 3400 |
| 17 | | | | | | | | | | | | | | | |

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Cast 29 - First sample is 481, duplicate with last sample # on cast 28, but only sample taken was Cs137, identical with sample # 482.