DAILY SCIENCE LOG BOOK

MISSION NUMBER 2016-67

DATE: From: Oct 5, 2016 To: Oct 2016

VESSEL: J.P. Tully

PROJECT(S):

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

WaterProperties.ca

**** The following 3 pages are VERY IMPORTANT as they document equipment and settings used on board ****

These pages are to be completed by the CTD Technician setting up the equipment, the Watch Leader on board, and the Chief Scientist MUST verify that all relevant sections are completed prior to leaving the vessel. *Any mid-cruise changes to be noted by watch leader in the notes.*

Data logging computer: Tully Laptop

Data acquisition program: Seasave

CTD deck unit make: SBE model: 11+ serial number: 0425

Primary CTD

Make: SBE model: 9+ serial number: 0443

Primary temperature serial number: 4752

Primary conductivity serial number: 2280

Secondary temperature serial number: 2710

Secondary conductivity serial number: 2754

Transmissometer: Wetlabs Model: C-STAR s/n: 1185DR

Transmissometer: _____ Model: _____ s/n: _____

Fluorometer: Model Seapoint Cable gain: 3X s/n: 3640 (P) S or NO pump?

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

Oxygen sensor: SBE Model: 43 s/n: 0997 P, (S) or NO pump?

PAR sensor: Biospherical Model: QSP200L45 s/n: 4565 Surface PAR? Y / (N)

Other sensors: Attimeter s/n: 62354 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)

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Month October | **Year** | **Vessel** | **Cruise ID**

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
1	Sill	6	04:52	BE	ROS		48° 41.36	123° 29.84	86		-		SR	☐☐	Trans wasn't
			04:54	BO			° 41.36	° 29.85		81	-			☐☐	cleaned.
			04:56	EN			° 41.36	° 29.85			-			☐☐	
			:				° .	° .			-			☐☐	
2	SG	6	05:11	BE	ROS		48° 41.59	123° 29.79	82		-		SR	☑☐	
			05:14	BO			° 41.58	° 29.80		78	-			☐☐	
			05:17	EN			° 41.58	° 29.80			-			☐☐	
			:				° .	° .			-			☐☐	
3	DDL	6	12:17	BE	ROS	US	49° 5.13	123° 19.88	113		1 - 5	5	SR	☑☐	
			12:20	BO			° 5.14	° 19.88		109	-			☐☐	
			12:27	EN			° 5.13	° 19.87			-			☐☐	
			:				° .	° .			-			☐☐	
4	CNODE	7	02:35	BE	ROS	US	49° 2.49	123° 25.45	300		6 - 6	1	SR	☑☐	
			02:41	BO			° 2.50	° 25.45		297	-			☐☐	
			02:46	EN			° 2.50	° 25.45			-			☐☐	
			:				° .	° .			-			☐☐	
5	CTD_EN	8	02:46	BE	RO	US	49° 2.53	123° 19.04	171		7 - 7	1	SR	☑☐	
			02:51	BO			° 2.53	° 19.03			-			☐☐	
			02:55	EN			° 2.53	° 19.03			-			☐☐	

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

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Version: 14 February 2013

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Month October **Year** 2016 **Vessel** Tully **Cruise ID** 2016-67

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
6	BBL	9	01:27	BE	ROS	US	49° 4.92	123° 20.49	154		8 - 8	1	SR	☑ ☐	
			01:31	BO			° 4.92	° 20.50		149.5	-			☐ ☐	
			01:33	EN			° 4.91	° 20.51			-			☐ ☐	
			:				° .	° .			-			☐ ☐	
7	BPS3	10	08:07	BE	ROS	/	48° 37.44	123° 30.40	199		-	/	SR	☑ ☐	The CTD was
			08:11	BO			° 37.44	° 30.40		192	-			☐ ☐	left running for
			08:18	EN			° 37.42	° 30.40			-			☐ ☐	a deck pressure
			:				° .	° .			-			☐ ☐	reading 0.286
8	BPS4	10	08:34	BE	ROS		48° 37.30	123° 30.91	90		-	/	SR	☐ ☐	
			08:36	BO			° 37.30	° 30.91		87	-			☐ ☐	Deck pressure 0.322
			08:41	EN			° 37.31	° 30.90			-			☐ ☐	
			:				° .	° .			-			☐ ☐	
9	BPS5	10	09:01	BE	ROS	US	48° 37.62	123° 30.03	207		9 - 19	11	SR	☑ ☐	Start 0.609
			09:08	BO			° 37.62	° 30.02		205	-			☐ ☐	End 0.339
			09:26	EN			° 37.64	° 29.95			-			☐ ☐	
			:				° .	° .			-			☐ ☐	
10	BPS2		09:55	BE	ROS		48° 37.55	123° 29.69	207		-	/	SR	☑ ☐	End pres 0.305
			09:59	BO			° 37.56	° 29.71		205	-			☐ ☐	
			10:03	EN			° 37.57	° 29.71			-			☐ ☐	

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Month | **Year** | **Vessel** | **Cruise ID**

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
11	CTD_BPS1		10:18	BE	ROS		48° 37.61	123° 29.41	172		-		SR	☒ ☐	press on deck
			10:22	BO			° 37.61	° 29.41		168	-			☐ ☐	after the cast
			10:25	EN			° 37.61	° 29.41			-			☐ ☐	was 0.318
			:				° .	° .			-			☐ ☐	
12	CTD_S5		10:57	BE	ROS		48° 39.34	123° 30.14	183		-		SR	☒ ☐	@ 10:54 the CTD
			11:01	BO			° 39.33	° 30.15		181	-			☐ ☐	was ≈ 0.2m
			11:08	EN			° 39.32	° 30.13			-			☐ ☐	under water, the
			:				° .	° .			-			☐ ☐	bottles were in
13	CTD_SI		11:44	BE	ROS	US	48° 39.04	123° 29.03	96		20-20	1	SR	☒ ☐	air. →
			11:47	BO			° 39.04	° 29.02		93	-			☐ ☐	
			11:49	EN			° 39.03	° 29.01			-			☐ ☐	
			:				° .	° .			-			☐ ☐	
			:				° .	° .			-			☐ ☐	
			:				° .	° .			-			☐ ☐	
			:				° .	° .			-			☐ ☐	
			:				° .	° .			-			☐ ☐	
			:				° .	° .			-			☐ ☐	
			:				° .	° .			-			☐ ☐	
			:				° .	° .			-			☐ ☐	

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@ 11:05:30 - 11:05:59 the pressure read ≈ 0.280 with the CTD just above the water line and ≈ 0.287 on deck