

DAILY LOG BOOK

MISSION
NUMBER

2004-05

DATE:

From: 18 - 28 FEBRUARY to:

VESSEL:

JOHN P TULLY

PROJECT:

LINE P

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

Rosette Setup:

Number of bottles: 24 (Ocean Test Equip., General Oceanics, IOS)
Manufacturer: _____
Volume of bottles (litres): _____

Winches:

- | | | | |
|--------------------------|-------------------|------------------------|---------------------------------|
| 1. Make: <u>Hawboldt</u> | model: _____ | serial #: <u>1702</u> | used for: <u>see CTOL Point</u> |
| 2. Make: <u>Hawboldt</u> | model: _____ | serial #: <u>17027</u> | used for: <u>not used</u> |
| 3. Make: <u>SWAN</u> | model: <u>310</u> | serial #: <u>1083</u> | used for: <u>Bongo's</u> |
| 4. Make: <u>SWAN</u> | model: <u>310</u> | serial #: <u>1082</u> | used for: <u>low work</u> |
| 5. Make: _____ | model: _____ | serial #: _____ | used for: _____ |
| 6. Make: _____ | model: _____ | serial #: _____ | used for: _____ |
| 7. Make: _____ | model: _____ | serial #: _____ | used for: _____ |

Comments: _____

Salinometer: make: Guildline model: Portasal 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: _____

* 0585 Pressure sensor has a -0.2 db offset

Guide to cable terminations:

Date of cable termination: 2004/2/17

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:

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

At cable end:

1. .323
2. .323
3. .323

at 5 metres:

1. .327
2. .322
3. .322

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 _____

Cable round or oval _____

Does cable have loose outer armour? _____

(Raised wires or space between wires.) _____

Are outer armour wires flattened? _____

(flaking, not just looks rusty)

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:

Removed approx 5 m

Reterminated with 9 cond Impute connector.

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Month FEBRUARY				Year 2004			Ship JOHN A TULLY			Cruise ID 2004-05					
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							Latitude	Longitude							
18	SI03	1740	BE	ROS	US	1	48° 35.61	123° 29.94		226	1-12	12	MR/ST	✓	→
		1807	BO				48° 35.61	123° 29.97	222						
		1826	EN				48° 35.56	123° 29.98							
19	JF1	0005		LOOP			48° 16.09	123° 30.02	155				ST		
19	JF2	0141		LOOP			48° 27.10	124° 30.57	186				SK		Loop sal, chl, nut
19	JF3	0315		LOOP			48° 26.98	124° 30.02	222				SK		" " " "
19	JF4	0452		LOOP			48° 32.45	125° 00.00	—				MR		" " " " com
19	P1	0650	BE	ROS	US	2	48° 34.45	125° 30.07	138	138					
		0655	BO				48° 34.43	125° 30.06	1	135	13	1			
		0658	EN				48° 34.40	125° 30.05							
19	P2	0906	BE	ROS	US	3	48° 36.07	125° 59.82	118	113	14-21	8	ST	✓	
		0911	BO				48° 36.07	125° 59.76							
		0919	EN				48° 36.21	125° 59.73							
		1020	BO	Bongo		4	48° 35.99	125° 59.99	118	100					
19	P3	1208	BE	ROS	US	5	48° 37.50	126° 19.97	811		22		DA		
		1224	BO				48° 37.50	126° 19.98		790					
		1235	EN				48° 37.50	126° 19.99							
19	P3	1325		DNA Bongo		6	48° 37.52	126° 20.27		150					Counter Out →

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bottle firing method:
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Transmissometer to be cleaned for each cast, do not use Ammonia products

28 May 2003
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Stopped @ 67m, then go up and down. Problem with the winch UP to 30, back down

- Problem with Bongo winch counter. May not have gone down 150 m. likely 130 m or so.

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							Latitude	Longitude							
19	P4	1509	BE	ROS	US	7	48 37.00	126 39.98	1311						
		1539	BO		BO		48 39.01	126 39.99		1323	23-41	19	DA/SK		altimeter is not working well →
		1613	EN		EN		48 39.02	126 40.05					MR		
19	P4		BE	PUMP		8				40	5 depths				5, 10, 20, 30 + 40m
		1801	EN				48 38.99	126 40.04							
19	P4	1812	BO	NET		9	48 38.98	126 40.04	1321	150					
		1817	EN				48 38.99	126 40.01							ALSO 4 GO-FLO's @ 40m each
	P5	2118	BE	ROS	US	10	48 41.56	127 10.15	2100	2000	42	1	ST	✓	
		2200	BO				48 41.49	127 09 10.00							interesting
		2222	EN				48 41.49	127 09.98							transmissometer
20	P6	0040	BE	ROS	US	11	48 44.60	127 40.00	2544						trace (on way down)
		0117	BO				48 44.59	127 40.01		2	43	1	DA SK		Reconnected transmiss.
		0140	EN				48 44.61	127 40.06							Noisy Fluor signal on downcast cable.
20	P7	0401	BE	ROS	US	12	48 46.60	128 10 06	2505						After cast: Fill-in 4
		0433	BO				48 46.61	128 09.99		2006	44	1	MR/AM		go-fluor for 10 min.
		0456	EN				48 46.61	128 10.00							
20	P8	0755	BE	ROS	US	13	48 49.01	128 40.04	2519	2005			ST/DH		
		0836	BO				48 48.98	128 40.00		2005	45-64	20			
		0925	EN				48 48.98	128 40.07							

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→ Altimeter is seeing the weight that is cabled to the rosette.

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							Latitude	Longitude							
20	P8	1040	BO	NET		14	48°49.04	128°39.90	2519	150			ST		* →
	P9	1320	BE	ROS	US	15	48°51.40	129°09.96	2343				SK/DA		
		1357	BO				48°51.40	129°09.98		2000	65	1			
		1425	EN			5	48°51.34	129°10.03							
20	P10	1649	BE	ROS	US	16	48°53.63	129°40.12	2636				HR/M	✓	Fluo shd bad. Xmas bad on way up
		1721	BO				48°54.02	129°40.52		2005	66	1			Shp @ 5m to get out of swell.
		1747	EN				48°54.52	129°40.49							
20	P11	2001	BE	ROS	US	17	48°56.00	130°10.04	2754		67	1	ST/DH		
		2042	BO				48°55.98	130°09.97		2005					
		2104	EN				48°55.97	130°09.95							
	P12	2332	BE	ROS	US	18	48°58.24	130°40.11	3220						
21		0021	BO				48°58.24	130°40.11		3200	68-90	23	SK/DA		
		0125	EN				48°57.98	130°40.18							
	P12	0331		NET		19	48°58.20	130°40.30	3220	150					
	P12	0420	EN	Go-Plas		20	48°58.201	130°40.001		200	X	4			Go-Plas for Iron
21	P13		BE			21									
			BO								91	1			
			EN												

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Bongo winch counter stopped on us twice, just as we were about halfway down.
The engineers came + played with it for a bit + we finally got it
working. Probably lost 45 minutes or so here. (S.T.)

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							Latitude	Longitude							
21	P14	0838	BE	ROS	US	19	49° 02.58	131° 39.93	2902				ST		put in
	P13	0916	BO			22	49° 02.50	131° 39.74		2001	92	1			wrong event
		0944	EN				49° 02.42	131° 39.67							# 1 Put 19
21	P14	1418	BE	ROS		23	49° 07.44	132° 39.91							not 22 wrong str & sample no too
		1449	BO				49° 07.37	132° 39.56			93	1	SK/DA		Changed fluo cable
		1517	EN				49° 07.37	132° 38.82							Reconnected trans cable
															Transmissometer failed about 600m
															Trans. back in 1800m
															Trans failed up about 383
21	P15	1905	BE	ROS	US	24	49° 12.01	133° 39.95	3401					✓	Big swell
		1940	BO				49° 11.97	133° 39.47		2007	94	1	MR/AM		Loop taken for comp.
		2004	EN				49° 11.86	133° 39.58					ST		Good X miss + FIVE all way down
22	P16	0006	BE	ROS		25	49° 17.35	134° 39.83	3624		95-118				
		0105	BO				49° 17.07	134° 39.70				24	SK/DA		
		0212	EN				49° 17.65	134° 39.76							
22	P16	0255	BE	PUMP		26	49° 17.00	134° 40.00		40			KJ/DA		PUMP 5 DEPTHS
			EN												
22	P16	0428	BO	NET		27	49° 17.04	134° 39.94	3620	150			MR/AM		
		0433	EN				02	98							

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Trans 333DR on 0585C+0 !

There has been a problem with the mounting blocks for the CSTAR Transmitter on 333DR. One of the mounting blocks is missing a piece allowing the trans to move. I have secured the trans with a cable tie and redone the connection (again). The Trans tests OK on deck so I will leave it as is for another cast.

DA

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							Latitude	Longitude							
22	P16	0445	BE	Go Flo		28	49 17.04	134 39.96	3421	300		6			IRON
22	P16	0600	EN	11			49 17.6	134 39.56							
	P17	0935	BE	ROS		29	49 21.02	135 40.06	3526						
		1013	BO				49 21.01	135 40.02		2002	119	1	ST/DH	✓	
		1038	EN				49 21.00	135 39.95							
22	P18	1416	BE	ROS		30	49 26.05	136 40.07	3817						
		1448	BO				49 26.00	136 40.03		2000	120	1	SK/DA		
		1510	EN				49 25.99	136 40.03							
22	P19	1835	BE	ROS	US	31	49 30.04	137 40.08	3907					✓	Surf #121 + LOOP
		1909	BO				49 30.01	137 40.02		2005	121	1	MR/AM		
		1933	EN				49 30.02	137 40.02							
22	P20	2333	BE	ROS	US	32	49 33.94	138 41.59	3945		122-145		ST/DH	✓	wind 34 kt
23		0038	BO				49 34.41	138 41.89		4000	24	24			Med seas.
		0152	EN				49 34.33	138 42.06							
				PUMPING Go Flo		33			40m						5-40m
23	P20	0358	BO	Net		34	49 33.98	138 40.10	3944	150					
		0401	EN				49 34.00	138 40.07							
23	P20	0420	BE	Go Flo		35	49 33.84	138 39.96	3947	300		6			
		0527	EN				49 33.13	138 39.83							

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							Latitude	Longitude							
23	P21	0958	BE	ROS	US	36	49° 38.06	139° 40.11	3941				ST		blowing 35-40K
		1036	BO				49° 38.09	139° 46.25		2002	146	1			
		1103	EN				49° 38.11	139° 40.16							
23	P22	1508	BE	ROS	US	37	49° 41.98	140° 39.81	3923						→
		1539	BO				49° 41.97	140° 40.06		2007	147	1	SK/DA		Top valve was open.
		1601	EN				49° 41.96	140° 40.08							
23	P23	1936	BE	ROS	US	38	49° 46.03	141° 39.88	4028				MR/AM	✓	Surf 148 + Loop
		2010	BO				49° 46.04	141° 39.98		2011	148	1	ST		Stop @ 522 ↓ watch change
		2032	EN				49° 49.99	141° 40.03							
24	P24	0010	BE	ROS	US	39	49° 50.21	142° 40.08	3966						
		0042	BO				49° 50.20	142° 39.97		2001	149	1	SK/DA		
		0104	EN				49° 50.22	142° 40.01							
24	P25	0432	BE	ROS	US	40	49° 59.92	143° 36.44	4122				MR/AM	✓	
		0504	BO				49° 59.98	143° 36.28		2008	150	1			
		0527	EN				49° 59.98	143° 36.29							
	P35	0806	BE	ROS	US	41	49° 59.97	144° 18.17	4125				ST/DA		
		0846	BO				49° 59.99	144° 18.26		2005	151	1			
		0910	EN				49° 59.97	144° 18.25							

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Thermosalinograph had really low sal. Doug fixed it, back to normal @ 1535, 23/Feb/04 UTC.

* Not exactly. The problem seems to have persisted until about 22:30 28/ Feb/04 UTC.

I suspect it might be bubbles adhering to the cells. Draining the reservoir and refilling it seems to have corrected the problem.

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							Latitude	Longitude							
24	P26 ish	2349	BO	NET		42	50°02.00	144°58.00	4177	150			ST		Bongo to 150 m
24	~ P26	1202		NET		43	50 02.06	144 58.02		250			DA		DNA Bongo to 250 m
24	~ P26	1309	BE	ROS	US	44	50 02.06	144 57.79	4213						
		1335	BO				50 01.97	144 57.80			152-175	24	SK/DA		Calibration Cast
		1355	EN				50 01.97	144 57.83							
24	~ P26	1447	BE	ROS	US	45	50 02.01	144 57.96	4213						
		1451	BO	.			50 01.97	144 57.98		100	176-183	8	SK/DA		productivity cast
		1503	EN				50 02.05	144 58.01							
24	~ P26	1622	BE	DRF		46	50 01.91	144 57.44	4212	100					Deploy productivity drif.
		1625	EN				50 01.94	144 57.45							
24	P26	1735	BE	ROS	US	47	49°59.99	144°59.89	4222				MR/AM	✓	→
		1838	BO				50 00.05	145 00.00		4040	184-207	24			Stop @ 1250 f, winch hook out
		1959	EN				50 00.11	145 00.03							
24	P26	1730	BE	PUMP		48	49.59.99	144.59.89		10					BULK SW ^{USE DOE} _{DOE 105}
			EN												
24	~ P26	2138	BE	DRF		49									
		2144	EN				50 01.23	144 56.15		100					Recover productivity drifter
24	P26	2300		LOOP		LOOP 1	49 59.94	145 00.07							Loop - Sal only for ThermoSal
25	P26	0300		LOOP		LOOP 2	49 59.90	144 59.86							" " "

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@ 4040^{door} : 1 wrap left on drum

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							Latitude	Longitude							
25		0800				Loop	49° 54.18	143° 48.87							Loop 3
25	Loop 4	1558		Loop		—	49° 43.38	141° 25.23	4013						SAL, CHL, NUT
	Loop 5	1753		Loop			49° 38.10	140° 21.57	3925						✓
25	Loop 6	23:53		loop		loop	49° 32.91	139° 15.60	3900						✓
26	Loop 7	0600		Loop		—	49° 25.63	137° 37.99	3856						✓
26	Loop 8	16:00		Loop		Loop 7	49° 12.950' N	134° 59.100' W	3038						SAL, CHL, NUT
26	Loop 9	20:29		Loop		Loop 9	49° 07.04	133° 47.12							" " "
27	Loop 10	0002		Loop		Loop 10	49° 03.77	132° 49.76					SK/DA		Brushed Fluorometer Loop 10 SAL, CHL
27	Loop 11	04:52		Loop		Loop 11	48° 57.011' N	131° 31.100' W							
27	Loop 12	1604		Loop		—	48° 43.30	128° 27.97	2596						
	Loop 13	2004		loop			48° 38.77	127° 23.97	2550				ST		
27	Loop 14	21:56		loop		loop 14	48° 35.91	126° 51.26	1559				SK		CHL, SAL, CDOM.
27	Loop 15	23:55		loop		loop 15	48° 35.03	126° 20.37	1102				SK		CHL, SAL, CDOM x2
28	Loop 16	02:23		loop		loop 16	48° 30.40	125° 43.32	97				SK		CHL, SAL, CDOM x2
28	STUBC	1747	BE	ROS		48	48° 35.61	123° 30.01	227				DA		
		1754	BO			should be 50	48° 35.65	123° 30.04		220		24			
		1818	EA				48° 35.73	123° 30.08							

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

28 May 2003

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