

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID:

2014-19

Station:

P13

Event #:

56

Ship:

Tully

UTC Date (dd|mmm|yyyy): 24 | Aug | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed ☒ Pressure	Nut-F	Sal	Chl	HPLC								
1		343	50 / Max		x		x x	x x								
2		344	5		x	x	x x	x x								
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Profile type:

☒ ROS TRM X-Niskin other?

Watchkeeper(s): SR

Bottom Depth: 3750 m

Transmisso Cleaned: ☒ Y / ☐ N

Time UTC Local

Start 1133 0433

Bottom 1207

End 1240

Positional Information

Start
Lat: 49 ° 2.62 N
Lon: 131 ° 39.93 WBottom
Lat: 49 ° 2.63 N
Lon: 131 ° 39.93 WEnd
Lat: 49 ° 2.63 N
Lon: 131 ° 40.03 W

Extra comments:

no max (chl)

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P14 Event #: 57 Ship: Tully UTC Date (dd|mmm|yyyy): 24 | Aug | 2014

			Rosette Operation			Samples Taken / Sampler's Initials												Comments
Niskin #	Firing #	Sample #	Target	Confirmed		Nut-F	Sal	Chl	HPLC									
			Pressure	✓	Pressure													
1	1	345	50 / Max	✓	50	x		x x	x x									
2	2	346	5	✓	5	x	x	x x	x x									
3																		
4																		
5																		
6																		
7																		
8																		
9																		
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15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): SR

Bottom Depth: 3310 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1743	1043
Bottom	1816	
End	1853	

Positional Information
Start
Lat: 49 ° 7.38 N
Lon: 132 ° 39.90 W

Bottom
Lat: 49 ° 7.40 N
Lon: 132 ° 39.91 W

End
Lat: 49 ° 7.45 N
Lon: 132 ° 39.93 W

Extra comments:

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P15 Event #: 61 Ship: Tully UTC Date (dd|mmm|yyyy): 26 | Nov | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments	
			Target	Confirmed		Nut-F	Sal	Chl	HPLC										
			Pressure	✓	Pressure														
1	1	347	38 50 / Max	✓	38	x		x x	x x										
2	2	348	5	✓	5	x	x	x x	x x										
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
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13																			
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15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): MB

Bottom Depth: 2005 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	23:53	16:53
Bottom	00:25	
End	01:00	

Positional Information
Start
Lat: 49 ° 12 38 N
Lon: 133 ° 39 94 W

Bottom
Lat: 49 ° 11 99 N
Lon: 133 ° 39 99 W

End
Lat: 49 ° 12 00 N
Lon: 133 ° 39 98 W

Extra comments:
PAR OFF

Cruise ID: 2014-19 Station: P16 Event #: 607 Ship: Tully UTC Date (dd|mmm|yyyy): 25 | 106 | 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments
			Target Pressure	Confirmed ✓ Pressure		Cesium												
1	1	349	150	/	151		x											
2	2	350	150	/			x											
3	3	351	150	/			x											
4	4	352	150	/			x											
5	5	353	150	/			x											
6	6	354	150	/			x											
7	7	355	100	/	100		x											
8	8	356	100	/			x											
9	9	357	100	/			x											
10	10	358	100	/			x											
11	11	359	100	/			x											
12	12	360	100	/			x											
13	13	361	50	/	50		x											
14	14	362	50	/			x											
15	15	363	50	/			x											
16	16	364	50	/			x											
17	17	365	50	/			x											
18	18	366	50	/			x											
19	19	367	0	/	2.3		x											
20	20	368	0	/			x											
21	21	369	0	/			x											
22	22	370	0	/			x											
23	23	371	0	/			x											
24	24	372	0	/			x											

Profile type:
(ROS) TRM X-Niskin other?

Watchkeeper(s): MB

Bottom Depth: 3623 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0538	2238
Bottom	0541	
End	0547	

Positional Information

Start

Lat: 49 ° 17 06 N

Lon: 134 ° 39 93 W

Bottom

Lat: 49 ° 17 03 N

Lon: 134 ° 39 95 W

End

Lat: 49 ° 17 03 N

Lon: 134 ° 39 93 W

Extra comments:

Cesium #1

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P16 Event #: 603 Ship: Tully UTC Date (dd|mmm|yyyy): 25 | Apr | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments						
			Target Pressure	Confirmed	Pressure	TM	TM-ios	TM-ios	Dave	Fe Isot	Nut-Fr	Nut-C	Sal	Ligands								
				✓		Uvic	Filt	un-Filt	Cd													
1	1	373	1500	✓	1499m	x	x	x		x	x	x	x									
2	2	374	1250	✓	1249m	x	x	x		x	x	x	x									
3	3	375	1000	✓	1000m	x	x	x		x	x	x	x									
4	4	376	800	✓	800m	x	x	x		x	x	x										
5	5	377	600	✓	600m	x	x	x		x	x	x										
6	6	378	400	✓	399m	x	x	x		x	x	x										
7	7	379	200	✓	201m	x X	x	x		x	x											
8	8	380	100	✓	100m	x	x	x		x	x											
9	9	381	75	✓	75m	x	x x	x x		x	x											
10	10	382	50	✓	50m	x	x	x	x x	x X	x		xx									
11	11	383	25	✓	25m	x	x	x	x x	x X	x											
12	12	384	10	✓	9.7m	x	x	x	x x	x x	x								LEAKY 10L SWAPPED IN			
13																						
14																						
15																						
16																						
17																						
18																						
19																						
20																						
21																						
22																						
23																						
24																						

Profile type: TRACE METAL
ROS TRM X-Niskin other?
Watchkeeper(s):

Bottom Depth: 3623 m
Transmisso Cleaned: NA Y / N

Time	UTC	Local
Start	0615	2315
Bottom	0640	2340
End	0720	0020

Positional Information
Lat: 49 ° 16.99 N
Lon: 134 ° 39.99 W

Lat: 49 ° 17.02 N
Lon: 134 ° 40.06 W

Lat: 49 ° 17.00 N
Lon: 134 ° 40.12 W

Extra comments:
TMR BOTTLE 02974 pgs 12
OUT (BROKEN FIRING
LINES, REPLACED w/
BOTTLE 02984 MADE
NEW VENT

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P16 Event #: 64 Ship: Tully UTC Date (dd|mmm|yyyy): 25 Aug 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	OXY	Sal	Nut-F	Nut-C	DIC	pH					UBC			
					SR+AM	SR+AM	AR	KS							AM+SR			
1		385	Bot-10	✓ 3688	x		x	x	x	x					x			
2		386	3500	✓	x	x	x	x	xx	x								
3		387	3500	✓	x	x	x	x	x	x								
4		388	3000	✓	x	xx	x	x	x	x					x			
5		389	2500	✓	x	x	x	x	x	xxx								
6		390	2000	✓	xx	xx	x	x	x	x					x			
7		391	1500	✓	x	x	x	x	x	x					x			
8		392	1250	✓	x	x	xx	xx	x	x					x			
9		393	1000	✓	x	xx	x	x	x	x					x			
10		394	800	✓	x		x	x	x	x					x			
11		395	600	✓	x		x	x	x	x					x			
12		396	400	✓	x		x	x	x	x					x			
13		397	300	✓	xx		x		x	x					x			
14		398	250	✓	x		x		x	xxx								
15		399	200	✓	x		x		x	x					x			
16		400	175	✓	xx		x		x	x								
17		401	150	✓	x		x		x	x					x			
18		402	125	✓	x		x		x	x								
19		403	100	✓	x		x		x	x					x			
20		404	75	✓	xx		x		x	x								
21		405	50	✓	x		xx		x	x					x			
22		406	25	✓	x		x		x	x					x			
23		407	10	✓	x		x		x	x					x			
24		408	5	✓	x	x	x		x	x								

Profile type: ☒ ROS ☐ TRM ☐ X-Niskin ☐ other?

Watchkeeper(s): SR

Bottom Depth: 3625 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0734	0034
Bottom	0834	
End	0959	

Positional Information

Lat: 49 ° 16.99 N

Lon: 134 ° 40.03 W

Lat: 49 ° 17.02 N

Lon: 134 ° 40.13 W

Lat: 49 ° 16.99 N

Lon: 134 ° 40.35 W

Extra comments:

Deep cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID:

2014-19

Station:

P16

Event #:

66

Ship:

Tully

UTC Date (dd|mmm|yyyy): 25 | Aug | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target	Confirmed	Oxy	ONAr	NH4/	NO3/	CHL	NH4	Nut-fr	Sal						
			Pressure	✓	Pressure	Uvic	Uvic	HCO3	HCO3		IOS	IOS						
1		409	1%		71.5.2			xx	xx	x	xx	x	x					
2		410	10%		24			xx	xx	x	xx	x	x					
3		411	30%		3			xx	xx	x	xx	x	x					
4		412	55%		2.5			xx	xx	x	xx	x	x					
5		413	100%		2.5	xx	xx	xx	xx	x	xx	x	x					
6		414	100%		2.5							x						
7		415	10		10m	xx	xx					x						
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Profile type:

ROS TRM X-Niskin other?

Watchkeeper(s):

SR

Bottom Depth: 3625 m

Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	1133	0443
Bottom	1137	
End	1148	

Positional Information

Start	Lat:	49 ° 17.01	N
	Lon:	134 ° 40.27	W
Bottom	Lat:	49 ° 17.03	N
	Lon:	134 ° 40.23	W
End	Lat:	49 ° 17.02	N
	Lon:	134 ° 40.35	W

Extra comments:

Amanda's cast,

OUT OF ORDER!!

bot 8 fired by accident
bot 9 was another attempt
at a 2.5m bot as bot
6 was at 3m

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P16 Event #: 68 Ship: Tully UTC Date (dd|mmm|yyyy): 25 Aug 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials													Comments	
			Target Pressure	Confirmed			Cesium													
				✓	Pressure															
1	1	416	500	✓			x													
2	2	417	500	✓			x													
3	3	418	500	✓			x													
4	4	419	500	✓			x													
5	5	420	500	✓			x													
6	6	421	500	✓			x													
7	7	422	400	✓			x													
8	8	423	400	✓			x													
9	9	424	400	✓			x													
10	10	425	400	✓			x													
11	11	426	400	✓			x													
12	12	427	400	✓			x													
13	13	428	300	✓			x													
14	14	429	300	✓			x													
15	15	430	300	✓			x													
16	16	431	300	✓			x													
17	17	432	300	✓			x													
18	18	433	300	✓			x													
19	19	434	200	✓			x													
20	20	435	200	✓			x													
21	21	436	200	✓			x													
22	22	437	200	✓			x													
23	23	438	200	✓			x													
24	24	439	200	✓			x													

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): SR

Bottom Depth: 3621 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1257	0557
Bottom	1305	
End	1319	

Positional Information
Start
Lat: 49 ° 16 98 N
Lon: 134 ° 40.24 W

Bottom
Lat: 49 ° 17.03 N
Lon: 134 ° 40.28 W

End
Lat: 49 ° 17.02 N
Lon: 134 ° 40.36 W

Extra comments:
Cesium 2

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID:

2014-19

Station:

P16

Event #:

69170

Ship:

Tully

UTC Date (dd|mmm|yyyy):

25 Aug 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	DMS	DMSP	DMSP	Nut-F		Chl	HPLC	Phyto	ONAr					
					MR	MA	dMA	SR		MR	LA							
1		440	300	✓		x			x									
2		441	200	✓		x	x	x	xx									
3		442	175	✓		x	x	x	x									
4		443	100	✓		x	x	x	x	x								
5		444	75	✓		x			x	x								
6		445	50	✓		x			x	xx								
7		446	40	✓		x			x	x								
8		447	30	✓		x			x	x								
9		448	25	✓		x			x	x								
10		449	20	✓		xx	xx	xx	x	x								
11		450	15	✓		x			x	x								
12		451	10	✓		x			x	x								
13		452	5	✓		x	x	x	x	x								
14		453	0	✓		x	x	x	x	x								
15		454	50/M*10	✓ 46						xx	xx							
16		455	20/Max	✓ 36						xx	xx							
17		456	5	✓						xx	xx							
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Profile type:

ROS TRM X-Niskin other?

Watchkeeper(s): SR

Bottom Depth: 3621 m

Transmissio Cleaned: Y / N

Time	UTC	Local
Start	1433	0733
Bottom	1441	
End	1504	

Positional Information

Lat:	49° 16.98	N
Lon:	134° 39.98	W

Lat:	49° 17.03	N
Lon:	134° 40.03	W

Lat:	49° 17.03	N
Lon:	134° 40.03	W

Extra comments:

DMS cast; out-of-order.
Spike of CHL @ 39m
on down cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P17 Event #: 71 72 Ship: Tully UTC Date (dd|mmm|yyyy): 25 | AUG | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments	
			Target	Confirmed	Pressure	Nut-F	Sal	Chl	HPLC										
			Pressure	✓															
1	1	457	230 -50 / Max	✓	30	x		x x	x x										
2	2	458	5	✓	5	x	x	x x	x x										
3																			
4																			
5																			
6																			
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18																			
19																			
20																			
21																			
22																			
23																			
24																			

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): MB

Bottom Depth: 3642 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2005	1305
Bottom	2038	
End	2112	

Positional Information
Start
Lat: 49 ° 20 97 N
Lon: 135 ° 39 96 W

Bottom
Lat: 49 ° 20 97 N
Lon: 135 ° 40 01 W

End
Lat: 49 ° 20 98 N
Lon: 135 ° 40 01 W

Extra comments:
PAR OFF

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P18 Event #: 73 Ship: Tully UTC Date (dd|mmm|yyyy): 26 | Aug | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ☒ Pressure	Nut-F	Sal	Chl	HPLC							
1	1	459	30 / Max	☒ 33	x		x x	x x							
2	2	460	5	☒ 5	x	x	x x	x x							
3															
4															
5															
6															
7															
8															
9															
10															
11															
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13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): MB

Bottom Depth: 3819 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0200	1900
Bottom	0234	
End	0309	

Positional Information
Start
Lat: 49 ° 26 03 N
Lon: 136 ° 40 00 W

Bottom
Lat: 49 ° 26 02 N
Lon: 136 ° 40 07 W

End
Lat: 49 ° 26 02 N
Lon: 136 ° 40 14 W

Extra comments:

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P19 Event #: 75 Ship: Tully UTC Date (dd|mmm|yyyy): 26 Aug 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments	
			Target	Confirmed	Pressure	Nut-F	Sal	Chl	HPLC										
			Pressure	✓															
1		461	50 / Max	✓	28	x		x x	x x										
2		462	5	✓		x	x	x x	x x										
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
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16																			
17																			
18																			
19																			
20	5																		
21																			
22																			
23																			
24																			

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): SR

Bottom Depth: 3910 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0749	0049
Bottom	0821	
End	0857	

Positional Information
Start
Lat: 49 ° 29.98 N
Lon: 137 ° 39.94 W

Bottom
Lat: 49 ° 29.99 N
Lon: 137 ° 39.98 W

End
Lat: 49 ° 29.99 N
Lon: 137 ° 40.03 W

Extra comments:

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID:

2014-19

Station:

P20

Event #:

77

Ship:

Tully

UTC Date (dd|mmm|yyyy): 26 Aug 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ☒ Pressure	Oxy Uvic	ONAr Uvic	NH4/ HCO3	NO3/ HCO3	CHL	NH4	Nut-fr IOS	Sal IOS							
1	1	463	1%	44m			xx	xx	x	xx	x	x							
2	2	464	10%	19.5m			xx	xx	x	xx	x	x							
3	4	465	30%	6m			xx	xx	x	xx	x	x							
4	5	466	55%	2.5m			xx	xx	x	xx	x	x							
5	6	467	100%	2.5m	xx	xx	xx	xx	x	xx	x	x							
6	7	468	100%	2.5m								x							
7	3	469	10	10m	xx	xx						x							
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): SR

Bottom Depth: 3946 m
Transmissio Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1319	0619
Bottom	1322	
End	1330	

Positional Information
Start
Lat: 49 ° 33.92 N
Lon: 138 ° 40 04 W

Bottom
Lat: 49 ° 33.92 N
Lon: 138 ° 40.05 W

End
Lat: 49 ° 33.92 N
Lon: 138 ° 40.07 W

Extra comments:
Amanda's cast,
OUT OF ORDER!!
1, 2, 7, 3, 4, 5, 6

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P20 Event #: 79 Ship: Tully UTC Date (dd|mmm|yyyy): 26 | Aug | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments				
			Target	Confirmed	Pressure	OXY	Sal	Nut-F	Nut-C	DIC	pH				UBC					
			Pressure	✓		Pressure	MB/AM	TJ	KP	KP	AR/MR	KS				Am				
1	1	470	Bot-10	✓	4027	x		x	x	x	x				x					
2	2	471	3500	✓		x	x	x	x	xx	x									
3	3	472	3500	✓		xx	x	x	x	x	xxx									
4	4	473	3000	✓		x	xx	x	x	x	x				x					
5	5	474	2500	✓	2498	x	x	x	x	x	x									
6	6	475	2000	✓		x	xx	x	x	x	x				x					
7	7	476	1500	✓		x	x	x	x	x	x				x					
8	8	477	1250	✓		xx	x	x	x	x	x				x					
9	9	478	1000	✓		x	xx	x	x	x	x				x					
10	10	479	800	✓		x	x	x	x	x	x				x					
11	11	480	600	✓		x	x	xx	xx	x	x				x					
12	12	481	400	✓		x	x	x	x	x	x				x					
13	13	482	300	✓		xx	x	x		x	x				x					
14	14	483	250	✓		x	x	x		x	x									
15	15	484	200	✓		x	x	x		x	x				x					
16	16	485	175	✓		x	x	x		x	x									
17	17	486	150	✓		x	x	xx		x	x				x					
18	18	487	125	✓		x	x	x		x	xxx									
19	19	488	100	✓		x	x	x		x	x				x					
20	20	489	75	✓		xx	x	x		x	x									
21		490	50			x	x	x		x	x				x					
22		491	25			x	x	x		x	x				x					
23		492	10			x	x	x		x	x				x					
24		493	5			x	x	x		x	x									

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): MR/SL

Bottom Depth: 3945 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1537	0837
Bottom	1645	
End	1836	

Positional Information
Start
Lat: 49 ° 33.96 N
Lon: 138 ° 39.99 W

Bottom
Lat: 49 ° 33.99 N
Lon: 138 ° 40.01 W

End
Lat: 49 ° 34.00 N
Lon: 138 ° 40.00 W

Extra comments:
Deep cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID:

2014-19

Station:

P20

Event #: 82

Ship: Tully

UTC Date (dd|mmm|yyyy): 26 | aug | 2014

			Rosette Operation		Samples Taken / Sampler's Initials										Comments			
Niskin #	Firing #	Sample #	Target Pressure	Confirmed ✓ Pressure	TM Uvic	TM-ios Filt	TM-ios un-Filt	Dave Cd	Fe Isot	Nut-Fr	Nut-C	Sal	Ligands					
1	1	494	1500	✓ 1501m	x	x	x		x	x	x	x						
2	2	495	1250	✓ 1250m	x	x	x		x	x	x	x						
3	3	496	1000	✓ 1000m	x	x	x		x	x	x	x						
4	4	497	800	✓ 799m	x	x	x		x	x	x							
5	5	498	600	✓ 599m	x	x	x		x	x	x							
6	6	499	400	✓ 399m	x	x	x		x	x	x							
7	7	500	200	✓ 199m	x	x	x		x	x								
8	8	501	100	✓ 99m	x	x	x		x	x								
9	9	502	75	✓ 74.9m	x	xx	xx		x	x								
10	10	503	50	✓ 50m	x	x	x	xx	xy	x								
11	11	504	25	✓ 24.9m	x	x	x	xx	xy	x								
12	12	505	10	✓ 10m	x	x	x	xx	xy	x								
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Profile type:

ROS ☒ TRM ☐ X-Niskin ☐ other?

Watchkeeper(s): Mark, Kathryn, Dave

Bottom Depth: 1505 m

Transmisso Cleaned: Y / N

Time UTC Local

Start 19:50 12:50

Bottom 20:11 1:11

End 20:37 1:37

Positional Information

Start Lat: 49 ° 33.9333 N

Lon: 138 ° 39.8974 W

Bottom Lat: 49 ° 33 85 N

Lon: 138 ° 39 91 W

End Lat: 49 ° 33.84 N

Lon: 138 ° 39.98 W

Extra comments:

TMR

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P20 Event #: 83 Ship: Tully UTC Date (dd|mmm|yyyy): 26 | AUG | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	DMS	DMSP t	DMSP d	Nut-F		Chl	HPLC	Phyto	ONAr					
1	1	506	300	✓ 301	x			x										
2	2	507	200	✓ 201	x	x	x	x										
3	3	508	175	✓ 175	x	x	x	x										
4	4	509	100	✓ 100	x	x	x	xx		x								
5	5	510	75	✓ 75	x			x		x								
6	6	511	50	✓ 49	x			x		x								
7	7	512	40	✓ 40	x			x		x								
8	9	513	30	✓ 30	x			x		xx								
9	10	514	25	✓ 25	x			x		x								
10	12	515	20	✓ 20	xx	xx	xx	x		x								
11	13	516	15	✓ 15	x			x		x								
12	14	517	10	✓ 10	x			x		x								
13	15	518	5	✓ 5	x	x	x	x		x								
14	17	519	0	✓ 1.0	x	x	x	x		x								
15	8	520	35/M*10	✓ 35						xx	xx							
16	11	521	25/Max	✓ 25						xx	xx							
17	16	522	5	✓ 5						xx	xx							
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): MB

Bottom Depth: 3948 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2051	1351
Bottom	2056	
End	2114	

Positional Information

Lat:	49 ° 33 92	N
Lon:	138 ° 39 90	W

Start

Bottom

Lat:	49 ° 33 93	N
Lon:	138 ° 40 00	W

Bottom

End

Lat:	49 ° 33 94	N
Lon:	138 ° 40 02	W

End

Extra comments:
DMS cast; out-of-order.
1-7, 15, 8, 9, 16, 10, 11
12, 13, 17, 14

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P21 Event #: 85 Ship: Tully UTC Date (dd|mmm|yyyy): 27 | Aug | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed ✓ Pressure	Nut-F	Sal	Chl	HPLC		Cesium						
1	1	524	200	✓ 200						x						
2	2	525	200	✓						x						
3	3	526	200	✓						x						
4	4	527	200	✓						x						
5	5	528	200	✓						x						
6	6	529	150	✓ 150						x						
7	7	530	150	✓						x						
8	8	531	150	✓						x						
9	9	532	150	✓						x						
10	10	533	150	✓						x						
11	11	534	100	✓ 100						x						
12	12	535	100	✓						x						
13	13	536	100	✓						x						
14	14	537	100	✓						x						
15	15	538	100	✓						x						
16	16	539	100	✓						x						
17	17	540	50	✓ 50						x						
18	18	541	50	✓						x						
19	19	542	50	✓						x						
20	20	543	50	✓						x						
21	21	544	50	✓						x						
22	22	545	50	✓						x						
23	23	546	30 / Max	✓ 30	x		x x	x x								287 307
24	24	547	5	✓ 5	x	x	x x	x x								

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): MB

Bottom Depth: 3940 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0130	1830
Bottom	0204	
End	0245	

Positional Information
Start
Lat: 49 ° 38 07 N
Lon: 139 ° 39 83 W

Bottom
Lat: 49 ° 37 98 N
Lon: 139 ° 40 04 W

End
Lat: 49 ° 37 99 N
Lon: 139 ° 40 05 W

Extra comments:

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P22 Event #: 87 Ship: Tully UTC Date (dd|mmm|yyyy): 27 Aug 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Nut-F	Sal	Chl	HPLC							
1		548	50 / Max	✓ 15	x		x x	x x							
2		549	5	✓	x	x	x x	x x							
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Profile type: ☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): 8R

Bottom Depth: 3877 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0713	0013
Bottom	0745	
End	0820	

Positional Information
Start
Lat: 49 ° 42.03 N
Lon: 140 ° 39.79 W

Bottom
Lat: 49 ° 42.00 N
Lon: 140 ° 39.79 W

End
Lat: 49 ° 41.97 N
Lon: 140 ° 39.81 W

Extra comments:

Cruise ID: 2014-19 Station: P23 Event #: 586 Ship: Tully UTC Date (dd/mm/yyyy): 27 Aug 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed ☐	Pressure	Nut-F	Sal	Chl	HPLC										
1		550	50 / Max			x		x x	x x										
2		551	5			x	x	x x	x x										
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Profile type: ☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): SR

Bottom Depth: 4029 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1252	0552
Bottom	1326	
End	1400	

Positional Information
Start
Lat: 49 ° 46.14 N
Lon: 141 ° 39.79 W

Bottom
Lat: 49 ° 46.16 N
Lon: 141 ° 39.74 W

End
Lat: 49 ° 46.04 N
Lon: 141 ° 39.81 W

Extra comments:

Cruise ID: 2014-19 Station: P24 Event #: 90 Ship: Tully UTC Date (dd|mmm|yyyy): 27 Aug 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments					
			Target	Confirmed	Pressure	Nut-F	Sal	Chl	HPLC	DIC	pH										
			Pressure	✓																Pressure	
1	1	552	2005	✓	2006			x				x x x	x x x								
2	2	553	2005	✓				x				x x x	x x x								
3	3	554	2005	✓				x				x x x	x x x								
4	4	555	2005	✓				x				x x x	x x x								
5	5	556	2005	✓				x				x x x	x x x								VENT OPEN
6	6	557	2005	✓				x													
7	7	558	2005	✓				x													
8	8	559	2005	✓				x													
9	9	560	2005	✓				x													
10	10	561	2005	✓				x													
11	11	562	2005	✓				x													
12	12	563	2005	✓				x													
13	13	564	2005	✓				x													
14	14	565	2005	✓				x													
15	15	566	2005	✓				x													
16	16	567	2005	✓				x													
17	17	568	2005	✓				x													
18	18	569	2005	✓				x													
19	19	570	2005	✓				x													
20	20	571	2005	✓				x													
21	21	572	2005	✓				x													
22	22	573	2005	✓				x													
23	23	574	50 / Max	✓	50		x			x x	x x										no max > 2x background
24	24	575	5	✓	5		x	x		x x	x x										

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): JR

Bottom Depth: 3967 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1840	1140
Bottom	1912	
End	1944	

Positional Information
Start
Lat: 49 ° 50.17 N
Lon: 142 ° 39.91 W

Bottom
Lat: 49 ° 50.18 N
Lon: 142 ° 39.88 W

End
Lat: 49 ° 50.24 N
Lon: 142 ° 39.77 W

Extra comments:
Calibration cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P25 Event #: 94 Ship: Tully UTC Date (dd|mmm|yyyy): 28 | AUG | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments	
			Target	Confirmed		Nut-F	Sal	Chl	HPLC										
			Pressure	✓	Pressure														
1	1	576	50 (Max)	✓	15	x		x x	x x										NIS ?
2	2	577	5	✓	5	x	x	x x	x x										
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Profile type:
ROS TRM X-Niskin other?

Watchkeeper(s): MB

Bottom Depth: 4127 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0022	1722
Bottom	0055	
End	0127	

Positional Information

Start

Lat: 50°00.03 N

Lon: 143°36.27 W

Bottom

Lat: 49°59.99 N

Lon: 143°36.27 W

End

Lat: 50°00.01 N

Lon: 143°36.28 W

Extra comments:

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P35 Event #: 96 Ship: Tully UTC Date (dd|mmm|yyyy): 28 | AUG | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Nut-F	Sal	Chl	HPLC							
1	1	578	50 / Max	✓ 50	x		x x	x x							No more
2	2	579	5	✓ 5	x	x	x x	x x							
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): MB

Bottom Depth: 4126 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0441	2141
Bottom	0514	
End	0549	

Positional Information
Start
Lat: 49 ° 59 94 N
Lon: 144 ° 18 09 W

Bottom
Lat: 49 ° 59 94 N
Lon: 144 ° 18 11 W

End
Lat: 49 ° 59 93 N
Lon: 144 ° 18 12 W

Extra comments:

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P26 Event #: 97 Ship: Tully UTC Date (dd|mmm|yyyy): 28 | 8 | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments			
			Target	Confirmed		TM	TM-ios	TM-ios	Dave	Fe Isot	Nut-Fr	Nut-C	Sal	Ligands	CAR				
			Pressure	✓	Pressure	Uvic	Filt	un-Filt	Cd							Uvic	Uvic	Uvic	
1		580	35-40			x	x	x										10 min Rins.	
2		581	25			x	1/2 x	1/2 x	1/2									10 min 20s + Uvic	
3		582	10			x	x	x	1/2	1/2								10 min 20s + Uvic	
4																			
5																			
6		5813	25m		start										XX	XX	X	1x 20L = 15 min	
7		5813	25m		finish												X	1x 20L = 13 min	
8																		2x 20L carb. 30 min	
9																		(1x 10L carb. 10 min)	
10																		All carb. 10 min	
11																		took	
12																		(68 min)	
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): KS AR

Bottom Depth: 4226 m
 Transmisso Cleaned: Y N

Time	UTC	Local
Start	9:14	2:14
Bottom		2:40
End	11:30	4:30

Positional Information

Lat: 50 ° 00 00 N
Lon: 144 ° 59.95 W

Lat: ° N
Lon: ° W

Lat: 49 ° 59.93 N
Lon: 144 ° 59.99 W

Extra comments:
 TM pumping in the chains

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P26 Event #: 98 Ship: Tully UTC Date (dd|mmm|yyyy): 28 Aug 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials													Comments
			Target	Confirmed		Cesium													
			Pressure	√		Pressure													
1	1	584	150				x												
2	2	585	150				x												
3	3	586	150				x												
4	4	587	150				x												
5	5	588	150				x												
6	6	589	150				x												
7	7	590	100				x												
8	8	591	100				x												
9	9	592	100				x												
10	10	593	100				x												
11	11	594	100				x												
12	12	595	100				x												
13	13	596	50				x												
14	14	597	50				x												
15	15	598	50				x												
16	16	599	50				x												
17	17	600	50				x												
18	18	601	50				x												
19	19	602	0				x												
20	20	603	0				x												
21	21	604	0				x												
22	22	605	0				x												
23	23	606	0				x												
24	24	607	0				x												

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): SR

Bottom Depth: 4226 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1149	0449
Bottom	1154	
End	1201	

Positional Information

Lat:	49 ° 59.93	N
Lon:	144 ° 59.98	W

Bottom

Lat:	49 ° 59.91	N
Lon:	144 ° 59.98	W

End

Lat:	49 ° 59.92	N
Lon:	144 ° 59.99	W

Extra comments:
Cesium #1

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P26 Event #: 100 Ship: Tully UTC Date (dd|mmm|yyyy): 28 Aug 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target	Confirmed	Oxy	ONAr	NH4/	NO3/	CHL	NH4	Nut-fr	Sal							
			Pressure	√ Pressure	Uvic	Uvic	HCO3	HCO3			IOS	IOS							
1	1	608	1%	58.5			xx	xx	x	xx	x	x							
2	2	609	10%	12.5			xx	xx	x	xx	x	x							Snapped @ 12.5
3	4	610	30%	2.5			xx	xx	x	xx	x	x							
4	5	611	55%	2.5			xx	xx	x	xx	x	x							
5	6	612	100%	2.5	xx	xx	xx	xx	x	xx	x	x							
6	7	613	100%	2.5								x							
7	3	614	10	10m	xx	xx						x							
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Profile type: ☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): SR

Bottom Depth: 4226 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1243	0543
Bottom	1249	
End	1259	

Positional Information

Lat:	49 ° 59.96	N
Lon:	145 ° 0.12	W

▼

Lat:	49 ° 59.98	N
Lon:	145 ° 0.13	W

▼

Lat:	49 ° 59.96	N
Lon:	145 ° 0.15	W

Extra comments:
Amanda's cast,
OUT OF ORDER!!
1, 2, 7, 3, 4, 5, 6

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P26 Event #: 102 Ship: Tully UTC Date (dd|mmm|yyyy): 28 Aug 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target	Confirmed	DMS	DMSP	DMSP	Nut-F		Chl	HPLC	Phyto				
			Pressure	✓ Pressure												
					MR	t	MA	d	MA	AT		LA	LA	SR	MR	
1		616	300	✓	x			x								
2		617	200	✓	x	x	x	x	x							
3		618	175	✓	x	x	x	x								
4		619	100	✓	x	x	x	x		x						
5		620	75	✓ 76.6	x			x		x						
6		621	50	✓	x			x		x						
7		622	40	✓	x			x		x	x					
8		623	30	✓	x			x		x						
9		624	25	✓	x			x		x						
10		625	20	✓	x	x	x	x	x	x						
11		626	15	✓	x			x		x						
12		627	10	✓ 11	x			x		x						
13		628	5	✓	x	x	x	x		x						
14		629	0	✓	x	x	x	x		x						
15		630	50/M*10	✓						x	x					
16		631	20/Max	✓						x	x					
17		632	5	✓						x	x	x	x			
18																
19																
20																
21																
22																
23																
24																

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): SR

Bottom Depth: 4226 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	1633	0933
Bottom	1639	
End	1659	0959

Positional Information
Start
Lat: 50° 0.13 N
Lon: 145° 0.03 W

Bottom
Lat: 50° 0.13 N
Lon: 145° 0.03 W

End
Lat: 50° 0.13 N
Lon: 145° 0.13 W

Extra comments:
DMS cast; out-of-order.
1-6,15,7,8,9,10,16,11
12,13,17,14

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P26 Event #: 103 Ship: Tully UTC Date (dd|mmm|yyyy): 28 | AUG | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	TM Uvic	TM-ios Filt	TM-ios un-Filt	Dave Cd	Fe Isot	Nut-Fr	Nut-C	Sal	Ligands				
1	1	633	1500	✓	1500m	xx	x	x		x	x	x	x					
2	2	634	1250	✓	1248m	xx	x	x		x	x	x	x					
3	3	635	1000	✓	1000m	xx	x	x		x	x	x	x					
4	4	636	800	✓	797m	xx	x	x		x	x	x						
5	5	637	600	✓	600m	xx	x	x		x	x	x						
6	6	638	400	✓	401m	xx	x	x		x	x	x						
7	7	639	200	✓	200m	xx	x	x		x	x							
8	8	640	100	✓	100m	xx	x	x		x	x							
9	9	641	75	✓	74m	xx	xx	xx		x	x							
10	10	642	50	✓	50m	xx	x	x		xx	x							
11	11	643	25	✓	25m	xx	x	x		xx	x			xx				
12	12	644	10	✓	10m	xx	x	x		xx	x							
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Profile type:
 ROS (TRM) X-Niskin other?
 Watchkeeper(s): K.P.

Bottom Depth: 4224 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start		
Bottom	17:44	10:44
End	1844	

Positional Information

Lat:	50 ° 0.12	N
Lon:	145 ° 0.02	W

Bottom

Lat:	50 ° 00.12	N
Lon:	145 ° 00.02	W

End

Lat:	50 ° 0.04	N
Lon:	144 ° 59.92	W

Extra comments:
 TMR Rosette damaged on retrieval. Four Go-Flo bottles broken, TMR Frame bent, and one post missing.

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2014-19 Station: P26 Event #: 103 Ship: Tully UTC Date (dd|mmm|yyyy): 28 | AUG | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	TM	TM-ios	TM-ios	Dave	Fe Isot	Nut-Fr	Nut-C	Sal	Ligands		
					Uvic	Filt	un-Filt	Cd							
1	1	633	1500	✓	1500m	xx	x	x		x	x	x	x		BROKEN, STILL SAMPLED
2	2	634	1250	✓	1248m	xx	x	x		x	x	x	x		
3	3	635	1000	✓	1000m	xx	x	x		x	x	x	x		SHATTERED NO SAMPLE
4	4	636	800	✓	797m	xx	x	x		x	x	x			BROKEN, NO SAMPLE
5	5	637	600	✓	600m	xx	x	x		x	x	x			
6	6	638	400	✓	401m	xx	x	x		x	x	x			
7	7	639	200	✓	200m	xx	x	x		x	x				
8	8	640	100	✓	100m	xx	x	x		x	x				
9	9	641	75	✓	74m	xx	xx	xx		x	x				
10	10	642	50	✓	50m	xx	x	x		xx	x				
11	11	643	25	✓	25m	xx	x	x		xx	x		xx		
12	12	644	10	✓	10m	xx	x	x		xx	x				STOPCLOCK SHEARED OFF, NO SAMPLE
13															
14						* ROSETTE SMASHED INTO SIDE OF SHIP MULTIPLE TIMES ON RETRIEVAL									
15						• POS 1: TOP BROKEN UPON RETRIEVAL, STILL WATER									
16						INSIDE, SAMPLED BUT MAY BE CONTAMINATED									
17						• POS 3: BOTTLE SHATTERED									
18						• POS 4: STOPCLOCK SHEARED OFF + BOTTLE BROKEN									
19						NO SAMPLE									
20						• POS 12: STOPCLOCK SHEARED OFF + WITH THE ROD									
21						BROKEN, BOTTLE ITSELF SEEMS INTACT - MAY BE									
22						SALVAGEABLE. NO SAMPLE									
23															
24															

Profile type:
ROS (TRM) X-Niskin other?
Watchkeeper(s): K P.

Bottom Depth: 4224 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start		
Bottom	17:44	10:44
End	18:44	

Positional Information
Start
Lat: 50 ° 0.12 N
Lon: 145 ° 0.02 W

Bottom
Lat: 50 ° 00.12 N
Lon: 145 ° 00.02 W

End
Lat: 50 ° 0.04 N
Lon: 144 ° 59.92 W

Extra comments:
TMR Rosette damaged on retrieval. Four Go-Flu bottles broken, TMR frame bent, and one post missing.