

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: 59 Event #: 01 Ship: Tully UTC Date (dd mmm yyyy): 13 09 2018

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	OXY	Nut-fr	DIC	Sal		CHL	HPLC	Phyto	DA	HAB	UVic		
1		1	Bot-10	✓ 219	x	x	x										
2		2	200	✓ 201	x	x	xx								x		
3		3	175	✓ 176	xx	x											
4		4	150	✓ 152	x	x	x								x		
5		5	125	✓ 126	x	xx											Stop AT 148 ~ 2min
6		6	100	✓ 101	x	x	x										
7		7	75	✓ 75	x	x	x										
8		8	50	✓ 50	x	x	x			x					x		
9		9	40	✓ 40	xx	x				x							
10		10	30	✓ 30	x	xx	x			x							
11		11	20	✓ 19	x	x	xx			xx					x		
12		12	10	✓ 10	x	x	x			x					x		
13		13	5	✓ 5	x	x	x	x		x		xx		x	x		
14		14	0	✓ 1.6	x	x	x			xx	xx						fluor:
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth:	220	m
Transmisso Cleaned:	Y	N

Time	UTC	Local
Start	0058	1758
Bottom	0105	
End	0123	

Positional Information
Lat: 48 ° 36.96 N
Lon: 123 ° 14.60 W

Start	Lat: 48 ° 37.10 N
Bottom	Lon: 123 ° 14.69 W

End	Lat: 48 ° 37.42 N
	Lon: 123 ° 14.72 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040

Station: JF2

Event #: 04

Ship: Tully

UTC Date (dd mmm yyyy): 13 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	YS										
1		15	20	✓ 20	x										
2		16	20	✓	x										
3		17	20	✓	x										
4		18	20	✓	x										
5		19	20	✓	x										
6		20	20	✓	x										
7		21	20	✓	x										
8		22	20	✓	x										
9		23	20	✓	x										
10		24	20	✓	x										
11		25	20	✓	x										
12		26	20	✓	x										
13		27	20	✓	x										
14		28	20	✓	x										
15		29	20	✓	x										
16		30	20	✓	x										
17		31	20	✓	x										
18		32	20	✓	x										
19		33	20	✓	x										
20		34	20	✓	x										
21		35	20	✓	x										
22		36	20	✓	x										
23		37	20	✓	x										
24		38	20	✓	x										

Profile type: ☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
 Watchkeeper(s): H. M. +

Bottom Depth: 185 m
 Transmissio Cleaned: ☒ Y ☐ N

	UTC	Local
Start	0736	
Bottom	0739	
End	0744	

Positional Information
 Start
 Lat: 48 ° 18 . 04 N
 Lon: 123 ° 59 . 99 W

Bottom
 Lat: 48 ° 18 06 N
 Lon: 124 ° 00 . 00 W

End
 Lat: 48 ° 18 06 N
 Lon: 124 ° 00 . 03 W

Extra comments:
 Water for Yuanji Sun

Water Properties Group

Sampling Log . Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2018-040 Station: JF2 Event #: 05 Ship: Tully UTC Date (dd mmm yyyy): 13 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments
			Target Pressure	Confirmed		YS												
				✓	Pressure													
1		39	160	✓	160		x											
2		40	160	✓			x											
3		41	160	✓			x											
4		42	160	✓			x											
5		43	160	✓			x											
6		44	160	✓			x											
7		45	160	✓			x											
8		46	160	✓			x											
9		47	160	✓			x											
10		48	160	✓			x											
11		49	160	✓			x											
12		50	160	✓			x											
13		51	160	✓			x											
14		52	160	✓			x											
15		53	160	✓			x											
16		54	160	✓			x											
17		55	160	✓			x											
18		56	160	✓			x											
19		57	160	✓			x											
20		58	160	✓			x											
21		59	160	✓			x											
22		60	160	✓			x											
23		61	160	✓			x											
24		62	160	✓			x											

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): H.m

Bottom Depth: 185 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	0814	0114
Bottom	0817	
End	0822	

Positional Information

Lat:	48 ° 18.07 N
Lon:	124 ° 00 04 W

▼

Lat:	48 ° 18.08 N
Lon:	124 ° 00.02 W

▼

Lat:	48 ° 18.09 N
Lon:	124 ° 00.08 W

Extra comments:
Water for Yuanji Sun

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: JF2 Event #: 07 Ship: Tully UTC Date (dd.mmm.yyyy): 13 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-F	Chl	HPLC	DIC	DA	Phyto	HAB	Gases				
				✓		H ₂ O/LK	H ₂ O	YS/ST	YS/ST	ST	LK/SK							
1		63	Bot-5	✓	170	x		x			x							
2		64	150	✓		x		x			x							
3		65	125	✓		x x		x										
4		66	100	✓		x		x			x x							
5		67	75	✓		x		x			x							
6		68	50	✓		x		x x	x		x							
7		69	30	✓		x		x	x		x							
8		70	20	✓		x		x	x x		x x							
9		71	10	✓		x		x	x		x							
10		72	5	✓		x	x	x	x		x			x x				
11		73	0	✓		x		x	x	x x	x		x x	x				
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): H M +

Bottom Depth:	105	m
Transmisso Cleaned:	(Y) N	

Time	UTC	Local
Start	0859	0159
Bottom	0902	
End	0915	

Positional Information
Start
Lat: 48 ° 18.13 N
Lon: 124 ° 00 33 W

Bottom
Lat: 48 ° 18.12 N
Lon: 124 ° 00 38 W

End
Lat: 48 ° 18 13 N
Lon: 124 ° 00 48 W

Extra comments:
IOS

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P1 Event #: 10 Ship: Tully UTC Date (dd mmm yyyy): 13 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Sal	Nut-Fr	HPLC	CHL	Phyto	DA	DIC	Gases	HAB		
1		74	Bot-10	☒ 110	x		x					x x				
2		75	30	☒	x		x		x x			x				
3		76	5	☒	x x	x	x					x	x x			
4		77	5	☒			x	x x	x x	x x	x			x		
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): HM +

Bottom Depth: 119 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1707	1007
Bottom	1709	
End	1714	

Positional Information
Start
Lat: 48 ° 34.51 N
Lon: 125 ° 30.00 W

Bottom
Lat: 48 ° 34 51 N
Lon: 125 ° 30 02 W

End
Lat: 48 ° 34 51 N
Lon: 125 ° 30 02 W

Extra comments:
Phyto: lugol and Form

Water Properties Group

Sampling Log . Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2018-040 Station: P2 Event #: 11 Ship: Tully UTC Date (dd.mmm.yyyy): 13 09 2018

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments		
			Target	Confirmed	DMS	DMSP	DMSP	Nut-Fr	Chl	HPLC	UVic	Bugs	Phyto	HAB				
			Pressure	✓ Pressure														
					t MA	d MA	cu	cu (2)	pl (2)	TV	TV	ul	ul					
1		78	100	✓ 107								x						
2		79	100	✓ 100		x	x	x	x		x							
3		80	75	✓ 75				x	x		x							
4		81	50	✓ 50				x	x		x							
5		82	50	✓ 50								x						
6		83	40	✓ 40				x	x									
7		84	30	✓ 30				x	xx	xx							Fluo	0.11
8		85	25	✓ 25				x	x	xx							Fluo	1.07
9		86	20	✓ 20	xx	xx	xx	x	x	xx	x						Fluo	3.26
10		87	15	✓ 15				xx	xx	xx							Fluo	2.45
11		88	10	✓ 10				x	x	xx	x						Fluo	2.39
12		89	5	✓ 5		x	x	x	x	xx	x		xx	x			Fluo	1.50
13		90	5	✓ 5								x						
14		91	0	✓ 2.2	x	x	x	x	x									
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 115 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1939	1239
Bottom	1941	
End	1955	

Positional Information
Lat: 48 ° 35.95 N
Lon: 125 ° 59.97 W

Lat: 48 ° 35.94 N
Lon: 125 ° 59.97 W

Lat: 48 ° 35.90 N
Lon: 126 ° 0.00 W

Extra comments:
DMS + UVic
Phyto: lugol and Form

Water Properties Group

Sampling Log

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

Cruise ID: 2018-40 Station: P2 Event #: 14 Ship: Tully UTC Date (dd mmm/yyyy): 13 SEP 2018

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments	
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-F	Nut-C	Sal	DIC	TOC	TOC	Gels	Gases	DOC	CDOM		
					MR	JAY		MR	JWTV	SJ	DH	MR	TV	CL	OW		
1		92	Bot-10	✓ 109	x	x			x	x	x	x		x	xx		
2		93	100	✓ 100	xx	x			x		x	x					
3		94	75	✓ 75	x	x			xx		x	x					
4		95	75	✓ 75	x	x			x								
5		96	50	✓ 50	x	x			x	x	x	x		x	x		
6		97	25	✓ 25	x	xx			x		x	x					
7		98	10	✓ 10	x	x			x		x	x					
8		99	5	✓ 5	xx	x		x	x		x	x	xx				
9		100	0	✓ 2.1						x				xx	x		
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 116 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>2037</u>	<u>1337</u>
Bottom	<u>2040</u>	
End	<u>2051</u>	

Positional Information

Lat:	<u>48 ° 35.98</u>	<u>N</u>
Lon:	<u>126 ° 00.06</u>	<u>W</u>

▼

Lat:	<u>48 ° 35.98</u>	<u>N</u>
Lon:	<u>126 ° 00.07</u>	<u>W</u>

▼

Lat:	<u>48 ° 36.00</u>	<u>N</u>
Lon:	<u>126 ° 00.01</u>	<u>W</u>

Extra comments:
Deep cast

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P3 Event #: 15 Ship: Tully UTC Date (dd|mmm|yyyy): 13|09|18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target	Confirmed	Nut-F	Sal	Chl	HPLC	Gases	Phyto	HAB								
			Pressure	✓ Pressure					UBC										
1		101	5	✓	5	x	x	xx	xx	xx	xx	x							
2																			
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): MG

Bottom Depth:	808	m
Transmissio Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	2227	1527
Bottom	2240	
End	2256	

Positional Information		
Lat:	48 ° 37.54	N
Lon:	126 ° 19.98	W

▼		
Lat:	48 ° 37.59	N
Lon:	126 ° 19.95	W

▼		
Lat:	48 ° 37.60	N
Lon:	126 ° 19.88	W

Extra comments:
Phyto: lugol and Form

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P4 Event #: 16 Ship: Tully UTC Date (dd:mmm yyyy): 14 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed Pressure	DMS	DMSP	DMSP	Nut-Fr	Chl	HPLC	Phyto	UVic	DA	bugs	HAB		
					MA	MA	MA	WB	WB	MA/MA	MA	MA	MA	TV	MA		
1		102	300	✓	300	x			x								
2		103	250	✓	250				xx			x					
3		104	200	✓	200	x	x	x	x								
4		105	150	✓	150	x	x	x	x			x					
5		106	100	✓	100	x			x	x							
6		107	100	✓	100									x			
7		108	75	✓	75	x			x	x							
8		109	60	✓	60				x	x	xx						Fluo 0.256
9		110	50	✓	50									x			
10		111	50	✓	50	x			x	x	xx	x					Fluo 0.403
11		112	40	✓	40	x			x	xx	xx						Fluo 6.623
12		113	30	✓	30	x	x	x	x	x	xx						Fluo 1.685
13		114	25	✓	25	x			x	xx							
14		115	20	✓	20	xx	xx	xx	x	x		x					
15		116	15	✓	15	x			x	x	xx						Fluo 3.761
16		117	10	✓	10	x			x	x		x					
17		118	5	✓	5				x	x	xx	xxx	x		x		Fluo 2.845
18		119	5	✓	5									x			
19		120	5	✓	5	x	x	x				x					
20		121	0	✓	2	x	x	x	x	x							
21																	
22																	
23																	
24																	

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

Bottom Depth: 1315 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0032	1732
Bottom	0037	
End	0059	

Positional Information

Lat: 48 ° 39.00	N
Lon: 126 ° 40.03	W

▼

Lat: 48 ° 38.97	N
Lon: 126 ° 39.98	W

▼

Lat: 48 ° 38.96	N
Lon: 126 ° 39.97	W

Extra comments:
 DMS cast

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040

Station: P4

Event #: 17

Ship: Tully

UTC Date (dd mmm yyyy): 14 SEPT 2018

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Nut-C	Nut-F	Sal	TM F	TM UF	Ligs					
1	1	122	1200	1200	x	x	x	x	x						
2	2	123	1200	1199	x	x	x	x	x						tripped by depth
3	3	124	1000	1001	x	x		x	x						"
4	4	125	800	799	x	x		x	x						tripped by P
5	5	126	600	600	x	x	x	x	x						
6	6	127	400	401	xx	xx		x	x						
7	7	128	200	200		x		xx	xx						
8	8	129	100	99		x		x	x	xx					
9	9	130	75	75		x	x	x	x	xx					
10	10	131	50	50		x		x	x	xx					
11	11	132	25	25		x		x	x	xx					
12	12	133	10	10		x		x	x	xx					
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 1309 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0108	1808
Bottom	0132	
End	0205	

Positional Information
 Start
 Lat: 48° 38' 44.35" N
 Lon: 126° 39' 9.70" W

Bottom
 Lat: 48° 39' 02" N
 Lon: 126° 39' 96" W

End
 Lat: 48° 39' 07" N
 Lon: 126° 40' 13" W

Extra comments:
 TMR

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P4 Event #: 18 Ship: Tully UTC Date (dd/mm/yyyy): 14 Sep 2018

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed Pressure	Oxy	Nut-F	Nut-C	Sal	DIC	Cr	TOC	DNA	gases	SAGs	Gels	EEA	CAR		
				✓	ME/24	W/24	W/24	W/24	SS/24	45	DH		WB	SS		ST	ST		
1		134	Bot-10	✓	1321	x	x	x		x	x	x	x		x	x			
2		135	1250	✓	1249	x	x	x	x	xx			x		x				
3		136	1250	✓	1249	xx	x	x	xx	x		x				x			
4		137	1000	✓	1000	x	x	x	xx	x	x	x	x		x	x	x		
5		138	800	✓	800	x	x	x	x	x		x	x		x	x			
6		139	600	✓	600	x	xx	xx		x		x	x		x	x			
7		140	500	✓	500	x	x	x									x		
8		141	400	✓	400	x	x	x		x	x	x	x		x	x			
9		142	300	✓	300	x	x			x		x	x		x	x			
10		143	250	✓	250	x	x			x		x				x			
11		144	200	✓	200	x	x			x	x	x	x		x	x			
12		145	175	✓	175	xx	x			x		x				x			
13		146	150	✓	150	x	x			x		x	x		x	x			
14		147	125	✓	125	x	xx			x		x				x			
15		148	100	✓	100	x	x			x	x	x	x		x	x	x		
16		149	75	✓	75	x	x			x	x	x				x			
17		150	50	✓	50	x	x			x		x	x		x	x			
18		151	25	✓	24	x	x			x	x	x	x		x	x			
19		152	10	✓	10	x	x			x		x	x		x	x	x		
20		153	5	✓	5	xx	x		x	x		x		xx		x			
21		154	5	✓	5						x						x	x	
22																			
23																			
24																			

Version: 25 Nov 2014

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

Bottom Depth: 1310 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0220	1920
Bottom	0243	
End	0324	

Positional Information
Lat: 48° 39.06 N
Lon: 126° 40.12 W

Lat: 48° 39.03 N
Lon: 126° 40.13 W

Lat: 48° 38.90 N
Lon: 126° 40.11 W

Extra comments:
Deep cast
Will have loop for DO x2

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P4 Event #: 22 Ship: Tully UTC Date (dd|mmm yyyy): 14 | 09 | 18

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments		
			Target	Confirmed	Pressure	UBC														
			Pressure	✓																Pressure
1		155	Bot-10	✓	1316		x X													
2		156	Bot-10	✓																
3		157	Bot-10	✓																
4		158	Bot-10	✓																
5		159	1000	✓	1001		x X													
6		160	1000	✓																
7		161	1000	✓																
8		162	1000	✓																
9		163	500	✓	500		x X													
10		164	500	✓																
11		165	500	✓																
12		166	500	✓																
13		167	10	✓	10		x X													
14		168	10	✓																
15		169	10	✓																
16		170	10	✓																
17																				
18																				
19																				
20																				
21																				
22																				
23																				
24																				

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

Bottom Depth:	1310	m
Transmisso Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	0537	2237
Bottom	0600	
End	0627	

Positional Information		
Start	Lat: 48 ° 39.07	N
	Lon: 126 ° 40.17	W

Bottom	Lat: 48 ° 39.06	N
	Lon: 126 ° 40.06	W

End	Lat: 48 ° 39.03	N
	Lon: 126 ° 39.91	W

Extra comments:
UBC cast

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040

Station: P4

Event #: 23

Ship: Tully

UTC Date (dd mmm yyyy): 14 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials														Comments
			Target Pressure	Confirmed Pressure	Size	13C	15	15N	Dark	32Si	Part	d Si	NH4	urea	nuts	phyto	ONAr	O2	
1		171	5	✓							Si							170	
2		172	OXY MAX	✓ 25													xx	xx	
3																	xx	xx	
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17		173	0.1%	✓ 75	x	x	x	x		x	x	x	x	x	x	x			
18		174	1%	✓ 35	x	x	x	x		x	x	x	x	x	x	x			
19		175	15%	✓ 15	x	x	x			x	x	x	x	x	xxx				
20		176	30%	✓ 10	x	x	x	x		x	x	x	x	x	x	x			
21		177	55%	✓ 5	x					x					x				
22		178	55%	✓ 5		x	x	x		x		x	x	x		x			
23		179	100%	✓ 2	x				x		x			x	x				
24		180	100%	✓ 2		x	x	x		x		x	x	x	x				

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

Bottom Depth: 1303 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0700	0000
Bottom	0703	
End	0712	

Positional Information
Start
Lat: 48 ° 38 . 99 N
Lon: 126 ° 39 . 88 W

Bottom
Lat: 48 ° 38 . 96 N
Lon: 126 ° 39 . 86 W

End
Lat: 48 ° 38 . 86 N
Lon: 126 ° 39 . 95 W

Extra comments:
Productivity cast
Before sunrise IF possible
OUT-OF-ORDER
17, 18, 2, 19, 20, 21, 22, 1, 23, 24

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

UTC Date (dd/mm/yyyy): 14 / 9 / 19

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P6 Event #: 25 Ship: Tully UTC Date (dd mmm yyyy): 14 SEP 2018

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target	Confirmed	Nut-F	Sal	Chl	HPLC	Gases						
			Pressure	√ Pressure					UBC						
1		182	5	✓	x	x	xx	xx	xx						
2															
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): HM

Bottom Depth: 2569 m
Transmisso Cleaned: ☒ N

Time	UTC	Local
Start	1249	0549
Bottom	1322	
End	1355	

Positional Information

Start	Lat: 48° 44.65 N
	Lon: 127° 40.00 W
Bottom	Lat: 48° 44.56 N
	Lon: 127° 39.76 W
End	Lat: 48° 44.54 N
	Lon: 127° 39.59 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P7 Event #: 26 Ship: Tully UTC Date (dd mmm yyyy): 14 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target	Confirmed	Nut-F	Sal	Chl	HPLC	Gases	UBC						
			Pressure	√ Pressure												
1		183	5		x	x	xx	xx	xx							
2																
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): H.M. +

Bottom Depth: 2501 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	16 11	09
Bottom	16 43	
End	17 18	

Positional Information 46
Start
Lat: 48 ° 45 58 N
Lon: 128 ° 10 08 W

▼ 46
Bottom
Lat: 48 ° 45 52 N
Lon: 128 ° 09 08 W

▼ 46
End
Lat: 48 ° 45 48 N
Lon: 128 ° 09 02 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P8 Event #: 28 Ship: Tully UTC Date (dd mmm yyyy): 14 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments					
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut Fr	Nut C	Chl	HPLC	TOC-D	UBC	UVic	Gels	Phyto	HAB				
				✓		MR		TV	TV	JS	JS		CW	gases	TV	CW	TV	TV		
1		184	2000	✓	2006	x	xx	x	x				x			x			oops! ?	
2		185	1500	✓	1500	x	x	x	x				x			x				
3		186	1250	✓	1251	x	x	xx	xx				x			x				
4		187	1000	✓	1000	x	xx	x	x				x			x				
5		188	800	✓	800	x	x	x	x				x			x				
6		189	600	✓	600	xx		x	x				x			x				
7		190	400	✓	400	x		x	x				x			x				
8		191	300	✓	300	x		x					x			x				
9		192	250	✓	250	x		x					x		x	x				
10		193	200	✓	200	x		x					x			x				
11		194	175	✓	175	x		x					x			x				
12		195	150	✓	150	x		xx					x		x	x				
13		196	100	✓	100	xx		x		x			x			x				
14		197	75	✓	75	x		x		x			x			x				
15		198	60	✓	60	x		x		x	xx									
16		199	50	✓	51	x		x		x	xx	x		x		x				
17		200	40	✓	40	x		x		x	xx									
18		201	30	✓	30	x		x		x	xx									
19		202	25	✓	26	x		x		xx			x			x				
20		203	20	✓	20	x		x		xx					x					
21		204	15	✓	15	x		x		x	xx									
22		205	10	✓	10	x		x		x			x		x	x				
23		206	5	✓	5	xx	x	x					x	xx		x				
24		207	5		5			x		x	xx				x		xx	x		

Version: 25 Nov 2011

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

Watchkeeper(s): MG

Bottom Depth: 2514 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1933	1233
Bottom	2007	
End	2105	

Positional Information

Start Lat: 48 ° 49.07 N

Start Lon: 128 ° 39.93 W

Start

Bottom

End

Lat: 48 ° 49.05 N

Lon: 128 ° 40.07 W

Lat: 48 ° 48.98 N

Lon: 128 ° 40.26 W

Extra comments:

Will also have loops for Oxy x2

Phyto: L&F

Water Properties Group

Sampling Log . Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2018-040 Station: P9 Event #: 33 Ship: Tully UTC Date (dd mmm yyyy): 15 09 2018

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments			
			Target	Confirmed	Pressure	Nut-F	Sal	Chl	HPLC										
			✓	Pressure															
1		208	5	✓	5	x	x	x x	x x										WRONG DEPTH IN FILE
2																			
3																			OXY SPIKE @ 405 ↑
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): MG

Bottom Depth: 2336 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0122	1722
Bottom	0156	
End	0231	

Positional Information
Start
Lat: 48 ° 51.36 N
Lon: 129 ° 09.98 W

Bottom
Lat: 48 ° 51.45 N
Lon: 129 ° 09.86 W

End
Lat: 48 ° 51.52 N
Lon: 129 ° 09.87 W

Extra comments:
Plus loops for 1x Sal, 2x Chl

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P10 Event #: 34 Ship: Tully UTC Date (dd mmm/yyyy): 15 09 18

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ☒	Pressure	Nut-F	Sal	Chl	HPLC	Gases						
1		209	5	✓	5	x	x	xx	xx	xx						
2																
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): MG

Bottom Depth: 2041 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0530	2230
Bottom	0547	
End	0605	

Positional Information
Start
Lat: 48 ° 53.51 N
Lon: 129 ° 46.29 W

Bottom
Lat: 48 ° 53.45 N
Lon: 129 ° 40.35 W

End
Lat: 48 ° 53.42 N
Lon: 129 ° 40.39 W

Extra comments:
Plus loops for 1x Sal, 2x Chl

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P11 Event #: 35 Ship: Tully UTC Date (dd mmm yyyy): 15 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target	Confirmed	Nut-F	Sal	Chl	HPLC	Gases										
			Pressure	✓ Pressure					UBC										
1		210	5	✓ 5	x	x	xx	xx	xx										
2																			
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): HM +

Bottom Depth: 2750 m

Transmisso Cleaned: ☒ Y ☐ N

	UTC	Local
Start	0817	0117
Bottom	0834	
End	0851	

Positional Information

Start

Lat: 48 ° 55 . 96 N

Lon: 130 ° 09 . 93 W

Bottom

Lat: 48 ° 55 . 80 N

Lon: 130 ° 10 . 05 W

End

Lat: 48 ° 55 . 68 N

Lon: 130 ° 10 . 08 W

Extra comments:

Plus loops for 1x Sal, 2x Chl

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P12 Event #: 36 Ship: Tully UTC Date (dd mmm yyyy): 15 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	UBC												
1		211	2000	✓		x											
2		212	2000	✓													
3		213	2000	✓													
4		214	2000	✓													
5		215	1000	✓		x											
6		216	1000	✓													
7		217	1000	✓													
8		218	1000	✓													
9		219	500	✓		x											
10		220	500	✓													
11		221	500	✓													
12		222	500	✓													
13		223	10	✓		x											
14		224	10	✓													
15		225	10	✓													
16		226	10	✓													
17			10	✓													
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 3234 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1100	0400
Bottom	11 33	
End	1210	

Positional Information
Start
Lat: 48 ° 58 . 18 N
Lon: 130 ° 40 . 04 W

Bottom
Lat: 48 ° 58 07 N
Lon: 130 ° 40 04 W

End
Lat: 48 ° 57 98 N
Lon: 130 ° 39 92 W

Extra comments:
UBC cast

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P12 Event #: 37 / 38 Ship: Tully UTC Date (dd mmm yyyy): 15 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments			
			Target Pressure	Confirmed ✓ Pressure	Size	13C	15	15N	Dark	32Si	Part	d Si	NH4	urea	nuts	phyto				
					CHL	15NO3	NH4	urea	Blank		Si								17O	
1		227	5	✓ 5														x x	x x	
2		228	OXY MAX	✓ 55														x x	x x	
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17		229	0.1%	✓ 60 m	x	x	x	x		x	x	x	x	x	x	x				
18		230	1%	✓ 45 m	x	x	x	x		x	x	x	x	x	x					
19		231	15%	✓ 15 m	x	x	x			x	x	x	x	x	x	x				
20		232	30%	✓ 8 m	x	x	x	x		x	x	x	x	x	x					
21		233	55%	✓ 5 m	x						x						x			
22		234	55%	✓ 5 m		x	x	x		x		x	x	x	x x x					
23		235	100%	2 m	x				x		x									
24		236	100%	2 m		x	x	x		x		x	x	x	x					

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): H. M. +

Bottom Depth: 3233 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1236	0536
Bottom	1239	
End	1250	

Positional Information

Lat:	48 ° 50.20	N
Lon:	130 ° 39.82	W

Bottom

Lat:	48 ° 58.20	N
Lon:	130 ° 39 81	W

End

Lat:	48 ° 50.18	N
Lon:	130 ° 39.76	W

Extra comments:
Productivity cast
Before sunrise IF possible
OUT-OF-ORDER
17, 2, 18, 19, 20, 21, 22, 1, 23, 24

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P12 Event #: 41 Ship: Tully UTC Date (dd mmm yyyy): 15 SEP 2018

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed	Nut-F	Sal	TM F	TM UF	Ligs							
				✓ Pressure												
1		237	300		299	x	x	x	x							
2		238	200		200	x		xx	xx							
3		239	150		149	x		x	x							
4		240	100		100	x		x	x							
5		241	75		73	x		x	x							
6		242	50		46	x		x	x							
7		243	40		40	x		x	x	xxxx						
8		244	25		20	xx		x	x							
9		245	10		10	x		x	x							
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

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

Bottom Depth: 3233 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1503	0803
Bottom	1511	
End	1519	

Positional Information

Lat:	48° 58.18	N
Lon:	130° 39.99	W

Start

Lat:	48° 58.18	N
Lon:	130° 39.99	W

Bottom

Lat:	48° 58.17	N
Lon:	130° 40.01	W

End

Extra comments:
TMR Shallow

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P12

Event #: 42

Ship: Tully

UTC Date (dd mmm yyyy): 15 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials														Comments
			Target Pressure	Confirmed Pressure	OXY	Sal	Nut-F	Nut-C	DIC	TOC	TOC	Gels	SAGs	DNA	Gases	EEA	DOC	Cr	
				✓	mm/x				mm/jw	DH	SJ		UBC	UBC	UBC		CDOM		
1		246	Bot-10	✓	3273	x		x	x	x	xx	x	x	x			x	x	
2		247	3000	✓		x	xx	x	xx	x		x	x	x		x		x	
3		248	2500	✓		xx	xx	x	x	x		x						x	
4		249	2000	✓		x	x	xx	xx	x	x	x	x	x				x	
5		250	1500	✓		x	xx	x	x	x		x	x	x				x	
6		251	1250	✓		x	x	x	x	x		x	x	x				x	
7		252	1000	✓		x	xx	x	x	x		x	x	x		x		x	
8		253	800	✓		x		x	x	x		x	x	x				x	
9		254	600	✓		x		x	x	x		x	x	x				x	
10		255	500	✓		x		x	x							x			
11		256	400	✓		x		x	x	x		x	x	x				x	
12		257	300	✓		xx		x	x	x		x	x	x				x	
13		258	250	✓		x		x	x	x		x						x	
14		259	200	✓		x		x	x	x		x	x	x				x	
15		260	175	✓		xx		x	x	x		x							
16		261	150	✓		x		x	x	x		x	x	x				x	
17		262	125	✓		x		x	x	x		x							
18		263	100	✓		x		x	x	x		x	x	x		x		x	
19		264	75	✓		x		x	x	x		x							
20		265	50	✓		x		x	x	x	x	x	x	x			x	x	
21		266	25	✓		x		xx	x	x		x	x	x				x	
22		267	10	✓		xx		x	x	x		x	x	x		x		x	
23		268	5	✓		x	x	x	x	x		x			xx			x	
24		269	0	✓		x		x			x						xx		

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): H. J. +

Bottom Depth: 3233 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1527	0827
Bottom	1620	
End	1735	

Positional Information

Start	Lat: 48 ° 58 .16 N
	Lon: 130 ° 40 .00 W

Start

Bottom

End

Lat: 48 ° 58 .17 N
Lon: 130 ° 40 .03 W

Lat: 48 ° 58 13 N
Lon: 130 ° 39 93 W

Extra comments:
Deep cast
Will have loops for DO x2

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P12 Event #: 44 Ship: Tully UTC Date (dd mmm yyyy): 15 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments		
			Target Pressure	Confirmed ✓ Pressure	DMS	DMSP	DMSP	Nut-Fr	Chl	HPLC	DA	Phyto	HAB	UVic				
					M R	I M A	d M A	ew	ALL	TV		TV	TV	TV				
1		270	300	✓ 300	x			x										
2		271	250	✓ 250				x						x				
3		272	200	✓ 200	x	x	x	x										
4		273	150	✓ 150	x	x	x	x						x				
5		274	100	✓ 100	x			x	x									
6		275	75	✓ 75	x			x	x									
7		276	60	✓ 60				x	x	xx							Fluo 1.856	
8		277	50	✓ 50	x			x	xx	xx				x			Fluo 2.916	
9		278	40	✓ 40	x			x	x	xx							Fluo 2.906	
10		279	30	✓ 30	x	x	x	x	x	xx							Fluo 0.708	
11		280	25	✓ 25	x			xx	x									
12		281	20	✓ 21	xx	xx	xx	x	x					x				
13		282	15	✓ 15	x			x	x	xx							Fluo 0.378	
14		283	10	✓ 10	x			x	x					x				
15		284	5	✓ 5	x	x	x	x						x				
16		285	5	✓ 5					x	xx		xx	x				Fluo 0.317	
17		286	0	✓ 1.76	x	x	x	x	xx									
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth:	3233	m
Transmisso Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	2043	1343
Bottom	2049	
End	2111	

Positional Information
Lat: 48 ° 58.24 N
Lon: 130 ° 39.95 W

Start

Lat: 48 ° 58.23 N
Lon: 130 ° 39.92 W

Bottom

Lat: 48 ° 58.22 N
Lon: 130 ° 39.82 W

End

Extra comments:
DMS cast
Phyto: L&F

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P12 Event #: 45 Ship: Tully UTC Date (dd mmm yyyy): 15 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target	Confirmed	Nut-C	Nut-F	Sal	TM F	TM UF							
			Pressure	✓ Pressure												
1		288	2000	2000	x	x	x	x	x							
2		289	1800	1800	x	x	x	x	x							
3		290	1600	1600	xx	xx	x	x	x							
4		291	1400	1400	x	x	x	x	x							
5		292	1200	1200	x	x	x	x	x							
6		293	1100	1100	x	x		x	x							
7		294	1000	1000	x	x		x	x							
8		295	800	800	x	x		x	x							
9		296	600	600	x	x		xx	xx							
10		297	400	400	x	x		x	x							
11		298	250	250		x		x	x							
12		299	130	130		x		x	x							
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

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

Bottom Depth: 3233 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2120	1420
Bottom	2158	
End	2241	

Positional Information

Lat:	48 ° 58.19	N
Lon:	130 ° 39.77	W

▼

Lat:	48 ° 58.00	N
Lon:	130 ° 39.52	W

▼

Lat:	48 ° 58.15	N
Lon:	130 ° 39.24	W

Extra comments:
TMR Deep

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P13 Event #: 47 Ship: Tully UTC Date (dd mmm yyyy): 16 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials								Comments				
			Target	Confirmed	Nut-F	Sal	Chl	HPLC	Gases	Oxy	UVic						
			Pressure	✓ Pressure													
1		300	900	✓ 901						x x							
2		301	900	✓ 901						x x							
3		302	900	✓ 901						x x							
4		303	900	✓ 901						x x							
5		304	900	✓ 901						x x							
6		305	900	✓ 901						x x							
7		306	5	✓ 5	x	x	x x	x 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): MG

Bottom Depth: 3123 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0255	1955
Bottom	0330	
End	0407	

Positional Information

Start	Lat: 49 ° 02.58	N
	Lon: 131 ° 40.05	W

▼

Bottom	Lat: 49 ° 02.50	N
	Lon: 131 ° 40.20	W

▼

End	Lat: 49 ° 02.55	N
	Lon: 131 ° 40.42	W

Extra comments:
Plus loops for 1x Sal, 2x Chl

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040

Station: P14

Event #: 48

Ship: Tully

UTC Date (dd mmm yyyy): 16 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed Pressure	CHL	HPLC	Nut	Sal	Oxy	TOC	Gases	Gels	Phyto	HAB		
1		307	Bot-10	✓	3351			x		x		x				
2		308	3000	✓				x	x	x		x				
3		309	2500	✓				x x	x	x		x				
4		310	2250	✓				x	x	x		x				
5		311	2000	✓				x	x x	x		x				
6		312	1750	✓				x	x	x		x				
7		313	1500	✓				x x	x	x		x				
8		314	1250	✓				x	x	x		x				
9		315	1000	✓				x x	x	x		x				
10		316	800	✓				x	x	x		x				
11		317	600	✓				x	x	x		x				
12		318	400	✓				x	x	x		x				
13		319	300	✓				x	x	x		x				
14		320	250	✓				x	x	x		x				
15		321	200	✓				x	x	x		x				
16		322	175	✓				x	x	x		x				
17		323	150	✓				x	x x	x		x				
18		324	125	✓				x	x	x		x				
19		325	100	✓				x	x	x		x				
20		326	75	✓				x	x	x		x				
21		327	50	✓				x	x	x		x				
22		328	25	✓				x	x	x		x				
23		329	10	✓				x	x x	x		x				
24		330	5	✓				x x	x x	x		x x	x	x x	x	

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

Bottom Depth:	3313	m
Transmissio Cleaned:	(Y) / N	

Time	UTC	Local
Start	0933	0133
Bottom	0930	
End	1046	

Positional Information		
Lat:	49 ° 07.45	N
Lon:	132 ° 40.08	W

Start

Bottom

Lat:	49 ° 07.38	N
Lon:	132 ° 39.81	W

End

Lat:	49 ° 07.02	N
Lon:	132 ° 39.70	W

Extra comments:
TOC & Gels cast
Phyto: L & F

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P15 Event #: ~~49~~ 50 Ship: Tully UTC Date (dd mmm/yyyy): 16 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ✓ Pressure	Nut-F	Sal	Chl	HPLC	Gases										
										UBC									
1		331	5	✓		x	x	x x	x x	x x									
2																			
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): HMT

Bottom Depth: 3408 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1513	0813
Bottom	1550	
End	1622	

Positional Information

Start Lat: 49 ° 11.97 N

Start Lon: 133 ° 40.00 W

Bottom Lat: 49 ° 11.95 N

Bottom Lon: 133 ° 39.64 W

End Lat: 49 ° 11.97 N

End Lon: 133 ° 39.78 W

Extra comments:

Plus loops for 1x Sal, 2x Chl

Water Properties Group

DMS
Sampling Log

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

Cruise ID: 2018-040 Station: P16 Event #: 51 Ship: Tully UTC Date (dd mmm yyyy): 16 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed Pressure	DMS	DMSP	DMSP	Nut-Fr	Chl	HPLC	Phyto	HAB	UVic	EEA	CAR			
					MA	MA	MA	W	JPZ	TV	TV	TV	TV	SA	CH	ST		
1		332	500	✓ 500										x				
2		333	300	✓ 300	x			x										
3		334	250	✓ 250				x					x					
4		335	200	✓ 200	x	x	x	x										
5		336	150	✓ 150	x	x	x	x					x					
6		337	100	✓ 100	x			x	x					x				
7		338	75	✓ 75	x			x	x									
8		339	60	✓ 60				x	x	xx							Fluo 0.84	
9		340	50	✓ 50	x			x	x	xx			x				Fluo 1.319	
10		341	40	✓ 40	x			x	x	xx							Fluo 1.013	
11		342	30	✓ 30	x	x	x	x	x	xx							Fluo 0.989	
12		343	25	✓ 25	x			xx	xx									
13		344	20	✓ 20	xx	xx	xx	x	x				x					
14		345	15	✓ 15	x			x	x	xx							Fluo 0.683	
15		346	10	✓ 10	x			x	x				x	x				
16		347	5	✓ 5	x	x	x	x					x	x	x			
17		348	5	✓ 5					x	xx	xx	x					Fluo 0.403	
18		349	0	✓ 1.8	x	x	x	x	xx									
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 3634 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2044	1344
Bottom	2053	
End	2123	

Positional Information

Lat:	49 ° 16.94	N
Lon:	134 ° 40.00	W

Start

Bottom

Lat: 49 ° 16.89 N
Lon: 134 ° 40.02 W

End

Lat: 49 ° 16.83 N
Lon: 134 ° 40.02 W

Extra comments:

DMS cast

Phyto: L&F

TMR-2000

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P16 Event #: 52 Ship: Tully UTC Date (dd:mmm:yyyy): 16 SEP 2018

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed Pressure	Nut-C	Nut-F	Sal	TM F	TM UF									
1		350	2000	2000	x	x	x	x	x									
2		351	1800	1800	x	x	x	x	x									
3		352	1600	1600	x	x	x	xx	xx									
4		353	1400	1399	x	x	x	x	x									
5		354	1200	1200	x	x	x	x	x									
6		355	1100	1100	x	x		x	x									
7		356	1000	1000	x	x		x	x									
8		357	800	800	xx	xx		x	x									
9		358	600	600	x	x		x	x									
10		359	400	400	x	x		x	x									
11		360	250	250		x		x	x									
12		361	130	130		x		x	x									
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Watchkeeper(s): JC

Bottom Depth: 3634 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2134	1434
Bottom	2209	
End	2239	

Positional Information

Start Lat: 49° 16.83 N

Start Lon: 134° 40.04 W

Bottom Lat: 49° 16.84 N

Bottom Lon: 134° 40.01 W

End Lat: 49° 16.93 N

End Lon: 134° 39.88 W

Extra comments:

TMR Deep

Water Properties Group

DEEP
Sampling Log

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

Cruise ID:

2018-040

Station:

P16

Event #:

53

Ship:

Tully

UTC Date (dd:mmm:yyyy):

16 / 09 / 18

Cruise ID: 2018-040			Station: P16		Event #: CW MP/AT										Comments									
Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Gases	SAGs	DNA	EEA						
			Target Pressure	Confirmed Pressure	OXY	Sal	Nut-F	Nut-C	DIC	TOC	OXY	Gels												
				✓		MP/AT	MB	TV	TV	TV/MB	D	UVic	CW	WB	ST	ALV	ST							
1		362	Bot-10	✓	3686	x		x	x		x	x	x		x	x								
2		363	3500	✓	3500	x	xx	x	x			x												
3		364	3500	✓	3500	x	x	x	x		x	x	x											
4		365	3000	✓	3000	x	xx	x	x		x	x	x		x	x	x							
5		366	2500	✓	2500	xx	x	x	x		x	xx	x											
6		367	2000	✓	2000	x	xx	x	x		x	x	x		x	x								
7		368	1500	✓	1500	x	x	x	x		x	x	x		x	x								
8		369	1250	✓	1250	x	xx	x	x		x	x	x		x	x								
9		370	1000	✓	1000	x	xx	x	x		x	x	x		x	x	x							
10		371	800	✓	800	x		x	x		x	x	x		x	x								
11		372	600	✓	600	xx		xx	xx		x	x	x		x	x								
12		373	400	✓	400	x		x	x		x	x	x		x	x								
13		374	300	✓	301	x		x			x	x	x		x	x								
14		375	250	✓	250	x		x			x	x	x											
15		376	200	✓	200	x		x			x	x	x		x	x								
16		377	175	✓	175	x		x			x	x	x											
17		378	150	✓	150	x		x			x	x	x		x	x								
18		379	125	✓	125	xx		x			x	x	x											
19		380	100	✓	100	x		x		x	x	x	x		x	x								
20		381	75	✓	75	x		xx		x	x	xx	x											
21		382	50	✓	50	x		x		x	x	x	x		x	x								
22		383	25	✓	25	x		x		xx	x	x	x		x	x								
23		384	10	✓	10	xx		x		x	x	x	x		x	x								
24		385	5	✓	5	x	x	x		x	x	x	x	xx										

http://www.p...

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

Bottom Depth: 3634 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2256	1556
Bottom	2358	
End	0125	

Positional Information

Start
Lat: 49 ° 16.95 N
Lon: 134 ° 39.92 WBottom
Lat: 49 ° 16.98 N
Lon: 134 ° 39.90 WEnd
Lat: 49 ° 17.02 N
Lon: 134 ° 40.02 W

Extra comments:

Deep cast
Will also have loops for Oxy x2

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P16 Event #: 54 Ship: Tully UTC Date (dd mmm yyyy): 17 SEP 2018

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure		Nut-F	Sal	TM F	TM UF	Ligs								
1		386	300	300		x x	x	x	x									
2		387	200	200		x		x	x									
3		388	150	145		x		x	x									
4		389	100	100		x		x	x									
5		390	75	75		x		x	x									
6		391	50	50		x		x x	x x									
7		392	40	40		x		x	x	x x x x								
8		393	25	25		x		x	x									
9		394	10	10		x		x	x									
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Profile type:
ROS ☒ TMR ☐ X-Niskin ☐ other?
Watchkeeper(s): JC

Bottom Depth: 3634 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0134	1834
Bottom	0141	
End	0149	

Positional Information

Lat:	49° 17.06	N
Lon:	134° 40.05	W

▼

Lat:	49° 17.06	N
Lon:	134° 40.12	W

▼

Lat:	49° 17.09	N
Lon:	134° 40.17	W

Extra comments:
TMR Shallow

Water Properties Group

Sampling Log

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

Cruise ID:

2018-040

Station:

P16

Event #:

58

Ship:

Tully

UTC Date (dd mmm yyyy):

17 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments	
			Target	Confirmed	Size	13C	15	15N	Dark	32Si	Part	d Si	NH4	urea	nuts	phyto	ONAr		O2
			Pressure	✓ Pressure	CHL	15NO3	NH4	urea	Blank	Si									
1		395	5	✓													xx	xx	
2		396	OXY MAX	✓ 45													xx	xx	
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17		397	0.1%	✓ 75	x	x	x	x		x	x	x	x	x	xxx	x			
18		398	1%	✓ 40	x	x	x	x		x	x	x	x	x	x				
19		399	15%	✓ 20	x	x	x			x	x	x	x	x	x	x			
20		400	30%	✓ 15	x	x	x	x		x	x	x	x	x	x				
21		401	55%	✓ 10	x						x					x			
22		402	55%	✓ 10			x	x	x		x		x	x	x				
23		403	100%	2	x					x		x							
24		404	100%	2			x	x	x		x		x	x	x				

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

Bottom Depth: 3633 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0849	0149
Bottom	0853	
End	0904	

Positional Information
Start
Lat: 49 ° 17.01 N
Lon: 134 ° 39.96 W

Bottom
Lat: 49 ° 17.00 N
Lon: 134 ° 39.93 W

End
Lat: 49 ° 16.99 N
Lon: 134 ° 39.82 W

Extra comments:
Productivity cast
Before sunrise IF possible
OUT-OF-ORDER
17, 18, 2, 19, 20, 21, 22, 1, 23, 24

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P17 Event #: 59 Ship: Tully UTC Date (dd mmm yyyy): 17 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ☒ Pressure	Nut-F	Sal	Chl	HPLC	Gases						
1		405	5		x	x	xx	xx							
2															
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): HM+

Bottom Depth: 3642 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1334	0634
Bottom	1411	
End	1443	

Positional Information

Start	Lat: 49 ° 21 . 00 N
	Lon: 135 ° 40 . 92 W
Bottom	Lat: 49 ° 21 00 N
	Lon: 135 ° 40 . 90 W
End	Lat: 49 ° 20 . 99 N
	Lon: 135 ° 39 . 06 W

Extra comments:
Plus loops for 1x Sal, 2x Chl

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P18 Event #: 6861 Ship: Tully UTC Date (dd mmm yyyy): 17 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target	Confirmed	CHL	HPLC	Nut	Sal	Oxy	Gels	Gases	TOC						
			Pressure	✓ Pressure														
					JW	JW	JW	ALL	PG/H	CW	WB	CW						
1		406	Bot-10	✓	3888				x	x		x						THINK I DID NOT PUT THE
2		407	3500	✓	3500			x	x	x		x						DEPTH IN FILE
3		408	3000	✓	3000			xx	x	x		x						
4		409	2500	✓	2500			x	x	x		x						
5		410	2000	✓	2001			x	x	x		x						
6		411	1750	✓	1750				x	x		x						
7		412	1500	✓	1500				x	x		x						
8		413	1250	✓	1250				xx	x		x						
9		414	1000	✓	1001				x	x		x						
10		415	800	✓	800				x	x		x						
11		416	600	✓	600				x	x		x						
12		417	400	✓	400				xx	x		x						
13		418	300	✓	300				x	x		x						
14		419	250	✓	250				x	x		x						
15		420	200	✓	200				x	x		x						
16		421	175	✓	175				x	x		x						
17		422	150	✓	150				x	x		x						
18		423	125	✓	125				xx	x		x						
19		424	100	✓	100				x	x		x						
20		425	75	✓	76				x	x		x						
21		426	50	✓	50				x	x		x						
22		427	25	✓	25				x	x		x						
23		428	10	✓	10				x	x		x						
24		429	5	✓	5	xx	xx	x	x	x	xx	x						

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

Bottom Depth: 3833 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1903	1203
Bottom	2009	
End	2139	

Positional Information

Lat:	49 ° 26.23	N
Lon:	136 ° 40.09	W

Start

Bottom

End

Lat: 49 ° 26.42 N
Lon: 136 ° 40.07 W

Lat: 49 ° 26.44 N
Lon: 136 ° 39.54 W

Extra comments:
TOC & Gels cast

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P19

Event #: 63

Ship: Tully

UTC Date (dd:mmm:yyyy): 18:09:18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ☒ Pressure	Nut-F	Sal	Chl	HPLC	Gases UBC	NH4 Uvic									
1			2000	☒	2005							x							
2		430	5	☒	6	x	x	xx	xx	xx									
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): MG

Bottom Depth:	3929	m
Transmisso Cleaned:	☒ Y	☐ N

Time	UTC	Local
Start	0215	1915
Bottom	0248	
End	0319	

Positional Information
Start
Lat: 49 ° 30.03 N
Lon: 137 ° 39.97 W

Bottom
Lat: 49 ° 30.06 N
Lon: 137 ° 40.08 W

End
Lat: 49 ° 30.06 N
Lon: 137 ° 40.17 W

Extra comments:
Plus loops for 1x Sal, 2x Chl

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P20 Event #: 67168 Ship: Tully UTC Date (dd mmm yyyy): 18 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments		
			Target Pressure	Confirmed Pressure	Size	13C	15	15N	Dark	32Si	Part	d Si	NH4	urea	nuts	phyto	ONAr			
				✓	CHL	15NO3	NH4	urea	Blank		Si								17O	
1		431	5	✓																
2		432	OXY MAX	✓ 40													xx	xx		
3																	xx	xx		
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17		433	0.1%	✓ 80	x	x	x	x		x	x	x	x	x	x	x				
18		434	1%	✓ 65	x	x	x	x		x	x	x	x	x	x					
19		435	15%	✓ 25	x	x	x			x	x	x	x	x	x	x				
20		436	30%	✓ 15	x	x	x	x		x	x	x	x	x	xxx					
21		437	55%	✓ 7	x						x						x			
22		438	55%	✓ 7		x	x	x		x		x	x	x	x					
23		439	100%	✓ 2	x				x		x									
24		440	100%	✓ 2		x	x	x		x		x	x	x	x					

Version: 25 Nov 2011

Transmembrane Probe Model 11-6

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): H. M. +

Bottom Depth: 3964 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1033	0333
Bottom	1036	
End	1047	

Positional Information
Start
Lat: 49 ° 34 . 03 N
Lon: 138 ° 39 . 97 W

Bottom
Lat: 49 ° 34 . 00 N
Lon: 138 ° 39 . 98 W

End
Lat: 49 ° 34 . 00 N
Lon: 138 ° 39 . 97 W

Extra comments:
Productivity cast
OUT-OF-ORDER
17, 18, 2, 19, 20, 21, 22, 1, 23, 24

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P20 Event #: 69 Ship: Tully UTC Date (dd mmm/yyyy): 18 09 2018

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments	
			Target	Confirmed	Pressure		Nut-F	Sal	TM F	TM UF	Ligs								
			Pressure	✓															
1	1	441	300		299		x	x	x	x									
2	2	442	200		199		x		x	x									
3	3	443	150		149		x		x x	x x									
4	4	444	100		99		x		x	x									
5	5	445	75		68		x		x	x									
6	6	446	50		49		x		x	x									
7	7	447	40		39		x x		x	x	x x x x								
8	8	448	25		24		x		x	x									
9	9	449	10		9		x		x	x									
10	10																		
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

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

Bottom Depth: 3964 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1213	0513
Bottom		
End	1230	

Positional Information

Lat:	49 ° 34.00	N
Lon:	138 ° 39.99	W

▼

Lat:	49 ° 33.93	N
Lon:	138 ° 40.01	W

▼

Lat:	49 ° 33.98	N
Lon:	138 ° 40.01	W

Extra comments:
TMR Shallow

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P20 Event #: 70 Ship: Tully UTC Date (dd mmm yyyy): 18 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials																	Comments
			Target Pressure	Confirmed Pressure	OXY	Sal	Nut-F	Nut-C	DIC	CW TOC		Gels	Gases	SAGs	DNA	EEA	Cr					
				✓																		
													</									

Profile type: ROS TRM X-Niskin other?

Watchkeeper(s): ifm +

Bottom Depth: 3964 m

Transmisso Cleaned: Y N

Time	UTC	Local
Start	1237	0537
Bottom	1345	
End	1513	

Positional Information

Lat: 49 ° 34.07 N

Lon: 138 ° 39.88 W

Lat: 49 ° 34.10 N

Lon: 138 ° 39.68 W

Lat: 49 ° 34.02 N

Lon: 138 ° 39.38 W

Extra comments:

Deep cast

Will also have loops for Oxy x2

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P20 Event #: 71 Ship: Tully UTC Date (dd mmm yyyy): 18 09 2018

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed ✓ Pressure	Nut-C	Nut-F	Sal	TM F	TM UF							
1	1	474	2000	2000	x	x	x	x	x							
2	2	475	1800	1799	x	x	x	x	x							
3	3	476	1600	1600	x	x	x	x	x							
4	4	477	1400	1398	x	x	x	x	x							
5	5	478	1200	1200	x	x	x	xx	xx							
6	6	479	1100	1100	xx	xx		x	x							
7	7	480	1000	998	x	x		x	x							
8	8	481	800	798	x	x		x	x							
9	9	482	600	600	x	x		x	x							
10	10	483	400	400	x	x		x	x							
11	11	484	250	250		x		x	x							
12	12	485	130	129		x		x	x							
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

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

Bottom Depth: 3964 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1554	0854
Bottom	1636	
End	1726	

Positional Information

Lat:	49° 33.99	N
Lon:	138° 39.95	W

Start

Bottom

Lat: 49° 33.98 N
Lon: 138° 39.98 W

End

Lat: 49° 33.96 N
Lon: 138° 39.83 W

Extra comments:
TMR Deep

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P20 Event #: 72 Ship: Tully UTC Date (dd mmm yyyy): 10 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	DMS	DMSP	DMSP	Nut-Fr	Chl	HPLC		Phyto	HAB	UVic		EEA		
						t		d										
1		486	500	✓	500										x			
2		487	300	✓		x			x									
3		488	250	✓					x					x				
4		489	200	✓		x	x	x	x									
5		490	150	✓		x	x	x	x x					x				
6		491	100	✓		x			x	x								
7		492	75	✓		x			x	x x								
8		493	60	✓	-				x	x	x x							Fluo 8.303e-01
9		494	50	✓	-	x			x	x	x x			x				Fluo 1.026
10		495	40	✓	-	x			x	x	x x							Fluo 1.202
11		496	30	✓	-	x	x	x	x	x	x x							Fluo 1.001
12		497	25	✓		x			x	x								
13		498	20	✓		x x	x x	x x	x	x				x				
14		499	15	✓	-	x			x	x	x x							Fluo 7.361
15		500	10	✓		x			x	x x				x				
16		501	5	✓		x	x	x	x					x				
17		502	5	✓	-					x	x x		x x	x				Fluo 4.00
18		503	0	✓		x	x	x	x	x								
19																		
20																		
21																		
22																		
23																		
24																		

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): H. m +

Bottom Depth: 3965 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1736	1036
Bottom	1744	
End	1806	

Positional Information

Lat:	49 ° 33.97	N
Lon:	138 ° 39.95	W

Start

Bottom

Lat: 49 ° 33.98 N
Lon: 138 ° 39.84 W

End

Lat: 49 ° 33.97 N
Lon: 138 ° 39.69 W

Extra comments:
DMS & Uvic cast
Phyto: L&F

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P21 Event #: 73 Ship: Tully UTC Date (dd mmm yyyy): 18 09 18

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure		Nut-F	Sal	Chl	HPLC	Gases									
										UBC									
1		504	5	✓	5	x	x	x x	x x	x x									
2																			
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): MG

Bottom Depth: 3958 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	2248	1549
Bottom	2323	
End	2358	

Positional Information
Start
Lat: 49 ° 37.94 N
Lon: 139 ° 39.89 W

Bottom
Lat: 49 ° 37.76 N
Lon: 139 ° 39.89 W

End
Lat: 49 ° 37.75 N
Lon: 139 ° 39.91 W

Extra comments:
Plus loops for 1x Sal, 2x Chl

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P22 Event #: 74 Ship: Tully UTC Date (dd mmm yyyy): 19 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	CHL	HPLC	Nut	Sal	Oxy	Gels	Gases	TOC						
1		505	Bot-10	✓	3997				x	x		x					PAR OFF	
2		506	3500	✓	3500			x	x	x		x						
3		507	3000	✓	3000			xx	x	x		x						
4		508	2500	✓	2500			x	x	x		x						
5		509	2000	✓	2001			x	x	x		x						
6		510	1750	✓	1750			x	x	x		x						
7		511	1500	✓	1500				x	x		x						
8		512	1250	✓					x	x		x						
9		513	1000	✓					x	x		x						
10		514	800	✓					x	x		x						
11		515	600	✓					x	x		x						
12		516	400	✓					x	x		x						
13		517	300	✓					xx	x		x						
14		518	250	✓					x	x		x						
15		519	200	✓					x	x		x						
16		520	175	✓					x	x		x						
17		521	150	✓					xx	x		x						
18		522	125	✓					x	x		x						
19		523	100	✓					x	x		x						
20		524	75	✓					x	x		x						
21		525	50	✓					x	x		x						
22		526	25	✓					x	x		x						
23		527	10	✓					x	x		x						
24		528	5	✓		xx	xx	x	x	x	xx	x						

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

Bottom Depth: 3895 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0448	2148
Bottom	0556	
End	0724	

Positional Information

Lat:	49 ° 42.02	N
Lon:	140 ° 39.94	W

Start

Bottom

End

Lat: 49 ° 41.96 N
Lon: 140 ° 40.02 W

Lat: 49 ° 41.96 N
Lon: 140 ° 39.96 W

Extra comments:
TOC & Gels cast

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P23 Event #: 75 Ship: Tully UTC Date (dd:mmm:yyyy): 19 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Nut-F	Sal	Chl	HPLC		Phyto	HAB							
1		529	5	✓ 5	x	x	x x	x x		x x	x							
2																		
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): HM+

Bottom Depth: 4050 m
Transmisso Cleaned: Y N

Time	UTC	Local
Start	1157	0457
Bottom	1231	
End	1302	

Positional Information

Lat:	49 ° 46 00	N
Lon:	141 ° 39 92	W

▼

Lat:	49 ° 45.97	N
Lon:	141 ° 39.93	W

▼

Lat:	49 ° 45.96	N
Lon:	141 ° 39 95	W

Extra comments:
Phyto: L&F
Plus loops for 1x Sal, 2x Chl

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P24 Event #: 76 Ship: Tully UTC Date (dd:mmm:yyyy): 19 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	CHL	HPLC	Nut	Sal	Oxy	Gels	Gases	TOC						
					JW	JW	WB	YS/TV	MG/TV	CW/YS		D						
1		530	Bot-10	✓ 4047					x	x		x						
2		531	3500	✓ 3503				xx	x	x		x						
3		532	3000	✓ 3001				x	x	x		x						
4		533	2500	✓ 2501				x	x	x		x						
5		534	2000	✓ 2000				x	x	x		x						
6		535	1750	✓ 1750				x	x	x		x						
7		536	1500	✓ 1500					x	x		x						
8		537	1250	✓ 1250					x	x		x						
9		538	1000	✓ 1000					x	x		x						
10		539	800	✓ 801					x	x		x						
11		540	600	✓ 600					x	x		x						
12		541	400	✓ 401					x	x		x						
13		542	300	✓ 300					x	x		x						
14		543	250	✓ 250					x	x		x						
15		544	200	✓ 200					xx	x		x						
16		545	175	✓ 175					x	x		x						
17		546	150	✓ 150					x	x		x						
18		547	125	✓ 125					x	x		x						
19		548	100	✓ 100					xx	x		x						
20		549	75	✓ 75					x	x		x						
21		550	50	✓ 50					x	x		x						
22		551	25	✓ 25					x	x		x						
23		552	10	✓ 10					x	x		x						
24		553	5	✓ 5				xx	xx	x	x	xx	x					

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): H4 + M.G

Bottom Depth: 3986 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1716	1010
Bottom	1827	
End	2008	

Positional Information

Lat:	49 ° 50 . 25	N
Lon:	142 ° 40 . 12	W

Start

▼

Lat:	49 ° 49 . 98	N
Lon:	142 ° 39 . 64	W

Bottom

▼

Lat:	49 ° 49 . 80	N
Lon:	142 ° 39 . 40	W

End

Extra comments:
TOC & Gels cast

Sampling Log

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

Cruise ID: 2018-040 Station: P25

Event #: 77

Ship: Tuily

UTC Date (dd mmm/yyyy): 20 09 18

[illegible]

Profile type: ROS TRM X-Niskin other?

Watchkeeper(s): MG

Bottom Depth: 4143 m

Transmisso Cleaned: Y / N

<i>Time</i>	<i>UTC</i>	<i>Local</i>
Start	0034	1704
Bottom	0037	
End	0110	

Positional Information

Lat: 50 ° 00.03	N
Lon: 143 ° 36.40	W

Bottom	Lat:	50° 00.02	N
	Lon:	143° 36.45	W

End	Lat: 50 ° 0.01	N
	Lon: 143 ° 36.45	W

Extra comments:
Plus loops for 1x Sal, 2x Chl

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P35 Event #: 79 Ship: Tully UTC Date (dd:mmm:yyyy): 20 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Nut-F	Sal	Chl	HPLC							
1		555	5	✓ 5	x	x	x x	x x							
2															
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): MG

Bottom Depth: 4150 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0404	2104
Bottom	0438	
End	0513	

Positional Information
Start
Lat: 50 ° 00.03 N
Lon: 144 ° 18.27 W

Bottom
Lat: 50 ° 00.08 N
Lon: 144 ° 18.31 W

End
Lat: 50 ° 00.12 N
Lon: 144 ° 18.32 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040

Station: P26

Event #: 80

Ship: Tully

UTC Date (dd/mm/yyyy): 20 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	UBC		EEA	FISH			Noble gases				
1		556	3000	✓ 3000			x								
2		557	2000	✓				x							
3		558	2000	✓		x									
4		559	2000	✓		x									
5		560	2000	✓		x									
6		561	2000	✓							x				
7		562	1000	✓		x									
8		563	1000	✓		x									
9		564	1000	✓		x									
10		565	1000	✓			x	x							
11		566	500	✓			x	x							
12		567	500	✓		x									
13		568	500	✓		x									
14		569	500	✓		x									
15		570	500	✓							x				
16		571	300	✓							x				
17		572	200	✓							x				
18		573	100	✓							x				
19		574	100	✓			x								
20		575	10	✓		x									
21		576	10	✓		x									
22		577	10	✓		x									
23		578	10	✓			x	x							
24															

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

Bottom Depth: 425 m
 Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0809	0108
Bottom	0901	
End	0958	

Positional Information

Lat:	50 ° 00 .09	N
Lon:	145 ° 00 .14	W

Start

Lat:	50 ° 00 26	N
Lon:	145 ° 00 31	W

Bottom

Lat:	50 ° 00 42	N
Lon:	145 ° 00 49	W

End

Extra comments:
 UBC, Sachia & Roberta cast

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P26 Event #: 83 Ship: Tully UTC Date (dd mmm yyyy): 20 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	YS										
1		579	25	✓ 25	x										
2		580	25	✓	x										
3		581	25	✓	x										
4		582	25	✓	x										
5		583	25	✓	x										
6		584	25	✓	x										
7		585	25	✓	x										
8		586	25	✓	x										
9		587	25	✓	x										
10		588	25	✓	x										
11		589	25	✓	x										
12		590	25	✓	x										
13		591	25	✓	x										
14		592	25	✓	x										
15		593	25	✓	x										
16		594	25	✓	x										
17		595	25	✓	x										
18		596	25	✓	x										
19		597	25	✓	x										
20		598	25	✓	x										
21		599	25	✓	x										
22		600	25	✓	x										
23		601	25	✓	x										
24		602	25	✓	x										

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): Hm4

Bottom Depth: 4251 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	1105	0405
Bottom	1108	
End	1113	

Positional Information

Lat:	50 ° 00 . 00	N
Lon:	145 ° 00 . 01	W

Start

Bottom

End

Lat: 50 ° 00 . 02 N
Lon: 144 ° 59 . 98 W

Lat: 50 ° 00 . 01 N
Lon: 145 ° 00 . 01 W

Extra comments:

1st cast for Yuanji

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P26 Event #: 84 Ship: Tully UTC Date (dd mmm yyyy): 20 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	YS										
1		603	25	✓ 25	x										
2		604	25	✓	x										
3		605	25	✓	x										
4		606	25	✓	x										
5		607	25	✓	x										
6		608	25	✓	x										
7		609	25	✓	x										
8		610	25	✓	x										
9		611	25	✓	x										
10		612	25	✓	x										
11		613	25	✓	x										
12		614	25	✓	x										
13		615	25	✓	x										
14		616	25	✓	x										
15		617	25	✓	x										
16		618	25	✓	x										
17		619	25	✓	x										
18		620	25	✓	x										
19		621	25	✓	x										
20		622	25	✓	x										
21		623	25	✓	x										
22		624	25	✓	x										
23		625	25	✓	x										
24		626	25	✓	x										

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

Bottom Depth: 4250 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1142	0442
Bottom	1145	
End	1150	

Positional Information
Start
Lat: 50 ° 00 . 17 N
Lon: 144 ° 59 . 70 W

Bottom
Lat: 50 ° 00 14 N
Lon: 144 ° 59 72 W

End
Lat: 50 ° 00 . 19 N
Lon: 144 ° 59 . 67 W

Extra comments:
2nd cast for Yuanji

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040

Station: P26

Event #: 85

Ship: Tully

UTC Date (dd:mmm:yyyy): 20 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed Pressure	OXY	Sal	Nut-F	Nut-C	DIC	TOC	Cr	Gels	Gases	SAGs					DNA
				✓		H.M.L.	ET AL	ET AL	ET AL	MR/JV	D	YS	CW	YS	SS	JS+			
1		627	Bot-10	✓	43.5	x		x	x	x	x	x		x	x				
2		628	4000	✓	1002	x	xx	x	x	xx	x	x	x		x	x			
3		629	3500	✓		xx	x	xx	xx	x	x	x	x						
4		630	3000	✓		x	xx	x	x	x	x	x	x		x	x			
5		631	2500	✓		x	x	x	x	x	x	x	x						
6		632	2000	✓		x	x	x	x	x	x	x	x		x	x			
7		633	1500	✓		x	x	x	x	x	x	x	x		x	x			
8		634	1250	✓		xx	x	x	x	x	x		x		x	x			
9		635	1000	✓		x	x	x	x	x	x	x	x		x	x			
10		636	800	✓		x		x	x	x	x	x	x		x	x			
11		637	600	✓		x		x	x	x	x	x	x		x	x			
12		638	400	✓		x		x	x	x	x	x	x		x	x			
13		639	300	✓		x		x		x	x	x	x		x	x			
14		640	250	✓		xx		x		x	x	x	x						
15		641	200	✓		x		x		x	x	x	x		x	x			
16		642	175	✓		x		x		x	x		x						
17		643	150	✓		x		x		x	x	x	x		x	x			
18		644	125	✓	125	x		xx		x	x		x						
19		645	100	✓		x		x		x	x	x	x		x	x			
20		646	75	✓		xx		x		x	x		x						
21		647	50	✓		x		x		x	x	x	x		x	x			
22		648	25	✓		x		x		x	x	x	x		x	x			
23		649	10	✓		x		x		x	x	x	x		x	x			
24		650	5	✓		x	x	x		x	x	x	x	xx					

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

Watchkeeper(s): H.M.L.

Bottom Depth: 4250 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1223	0523
Bottom	1336	
End	1510	

Positional Information

Lat: 50 ° 00 . 00 N

Lon: 145 ° 00 01 W

Lat: 50 ° 00 . 09 N

Lon: 145 ° 00 . 11 W

Lat: 49 ° 59 . 95 N

Lon: 145 ° 00 17 W

Extra comments:

Deep cast

Will also have loops for Oxy x2

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: P26 Event #: 88 Ship: Tully UTC Date (dd mmm yyyy): 20 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Nut-F	Sal	TM F	TM UF	Ligs						
1		651	300	300	x	x	x								
2		652	200	200	x		xx								
3		653	150	150	x		x								
4		654	100	100	x		x		xx						
5		655	75	75	x		x		xx						
6		656	50	50	x		x		xx						
7		657	40	40	x		x		xx						
8		658	25	25	xx		x		xx						
9		659	10	10	x		x		xx						
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 4251 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2052	1352
Bottom	2059	
End	2108	

Positional Information

Lat:	50 ° 00.07	N
Lon:	145 ° 00.00	W

Start

Lat:	°	N
Lon:	°	W

Bottom

Lat:	°	N
Lon:	°	W

End

Lat:	50 ° 00.11	N
Lon:	144 ° 59.96	W

Extra comments:
TMR Shallow

Water Properties Group

Sampling Log

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

Cruise ID:

2018-040

Station:

P26

Event #: 89

Ship: Tully

UTC Date (dd mmm yyyy): 20 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments
			Target Pressure	Confirmed Pressure	DMS	DMSP	DMSP	Nut-Fr	Chl	HPLC	Phyto	UVic	DA	bugs	HAB	ONAr	Rit DO	
				✓	MR	MA	MA	MR	MR	MR	MR	TV	MR	TV	MR	Rit	UVic	
1		663	300	✓	300	x			x									
2		664	250	✓	250				x			x						
3		665	200	✓	200	x	x	x	x									
4		666	150	✓	150	x	x	x	x			x						
5		667	100	✓	101	x			x	x								
6		668	100	✓	100									x				
7		669	75	✓	75	x			x	x								Fluo 0.793
8		670	60	✓	60				x	x	xx							
9		671	50	✓	50									x				
10		672	50	✓	50	x			x	x	xx	x						Fluo 1.087
11		673	40	✓	40	x			x	xx	xx							Fluo 1.038
12		674	30	✓	30	x	x	x	x	x	xx							Fluo 1.441
13		675	25	✓	25	x			x	xx								
14		676	20	✓	20	xx	xx	xx	x	x		x						Fluo 0.891
15		677	15	✓	15	x			xx	x	xx							
16		678	10		10	x			x	x		x						
17		679	5	✓	5				x	x	xx	xxx	x		x			Fluo 0.464
18		680	5	✓	5									x				
19		681	5	✓	5	x	x	x				x						
20		682	5	✓	5											xx	xx	
21		683	0		2	x	x	x	x	x								
22		684	Oxy MAX	✓	50											xx	xx	
23																		
24																		

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

Watchkeeper(s): MG

Bottom Depth: 4251 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	2122	1422
Bottom	2128	
End	2151	

Positional Information

Start

Lat: 50 ° 00.04 N

Lon: 144 ° 59.97 W

Bottom

Lat: 50 ° 00.05 N

Lon: 144 ° 59.98 W

End

Lat: 50 ° 00.07 N

Lon: 144 ° 59.97 W

Extra comments:

DMS cast

OUT-OF-ORDER!

Phyto: L&F&G

OXY SAMPLES FROM LOOP-DVC

GWT 679

Phyto

P26

5 m

2018-040

Bot 17

<http://www.pac.dfo-mpo.gc.ca/sci/osap/projects/waterproperties/>

NOT SAMPLED

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: EX-F1 Event #: 90 Ship: Tully UTC Date (dd-mm-yyyy): 21-09-18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed Pressure			Chl	HPLC	²³⁴ Th					ONAr	DO Uvic			
1		697	335	✓	335					x								4351 IN FILE HEADER
2		698	200	✓	200					x								
3		699	150	✓	150					x								
4		700	125	✓	126					x								
5		701	100	✓	100					x								
6		702	75	✓	75					x								
7		703	75	✓	75			xx	NN									
8		704	50	✓	50					x								
9		705	50	✓	50			x	NN									
10		706	20	✓	20					x								
11		707	20	✓	20			x	NNn									
12		708	5	✓	5			x	xx									1.148
13		709	5	✓	5								xx	xx				
14		710	⁴⁵ Oxy Max	✓	45								xx	xx				
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Version: 25 May 2011

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

Bottom Depth: 4188 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0039	1739
Bottom	0046	
End	0104	

Positional Information
Start
Lat: 49 ° 57.65 N
Lon: 144 ° 42.25 W

Bottom
Lat: 49 ° 57.65 N
Lon: 144 ° 42.22 W

End
Lat: 49 ° 57.66 N
Lon: 144 ° 42.22 W

Extra comments:
EXPORTS - corner with Float
Thorium+ cast, OUT OF ORDER
n = 25 mm filter
N = NASA HPLC on 47mm filter

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: EX-F1 Event #: 92 Ship: Tully UTC Date (dd:mmm/yyyy): 21 SEP 2018

Cruise ID: 2018-040			Station: EX-1		C-10													Comments		
Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments		
			Target Pressure	Confirmed Pressure	OXY	Sal	Nut-F	Nut-C	DIC	TOC	TOC	Gels	DOC	CDOM	Gases	pH	PIC		POC	
				✓		MR/AMJ	MG	RM/MS		TV	D	S	D	S	S	MBJ	S	S	S	
1		711	2000	✓	2000	x	xx	x N	x N	x		x		x	x		x	x	x	
2		712	1500	✓	1500	xx	x	x N	x N	xx		x		xx	x		x	x	x	
3		713	1000	✓	1000	x	x	x N	x N	x		x		x	x		x	x	xx	
4		714	800	✓	799	x	x	xxNN	xxNN	x		xx		x	x		x	x	x	
5		715	400	✓	400	x		x N	x N	x		x		x	x		x	xx	x	
6		716	300	✓	300	xx		x N			x	x	x	x	x					
7		717	250	✓	250	x		xxNN		x	x	x	x	x	x		x	x	x	
8		718	200	✓	250	x		x N			x	x	x	x	x	xx				oops Bot 19 is 8
9		719	175	✓	175	x		x N			x	x	x	x	x	xx				
10		720	150	✓	150	xx		x N			x	x	x	x	xx	xx				
11		721	125	✓	125	x		x N			x	x	x	x	x	xx				
12		722	100	✓	100	x		x N		x	x	x	x	x	x	xx	x	x	x	
13		723	75	✓	75	x		x N			x	x	x	x	x	xx				
14		724	50	✓	50	x		x N		x	x	x	x	x	x	xx	x	x	x	
15		725	25	✓	25	x		x N		x	x	x	x	x	x	xx	x	x	x	
16		726	10	✓	10	x		x N		x	x	x	x	x	x	xx	x	x	x	
17		727	5	✓	5	xx	x	x N			x	x	x	x	x	xx				
18		728	0	✓	2.2							x		x	x					B 713 POC
19		718	200	✓	200															EX-F1
20																				1000 m
21																				2018-040
22																				Bot 3
23																				
24																				

Profile type: ROS TRM X-Niskin other?
Watchkeeper(s): MR/MGBottom Depth: 4186 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	0140	1840
Bottom	0215	
End	0309	

Positional Information
Start
Lat: 49° 57.66 N
Lon: 144° 42.18 WBottom
Lat: 49° 57.70 N
Lon: 144° 42.34 WEnd
Lat: 49° 57.69 N
Lon: 144° 42.54 WExtra comments:
EXPORTS BioFloat Corner
Chemistry cast
D = Dennis, S = Sophie
N = NASA nutrients

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: PA-012 Event #: 93 Ship: Tully UTC Date (dd mmm yyyy): 21 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ☒ Pressure		ONAr UW	Oxy UW										
1		729	10	☒	11	x x	x x										
2		730	5	☒	5	x x	x x										
3		731	0	☒	2.8	x x	x x										
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): MG

Bottom Depth: 4228 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0510	2210
Bottom	0519	
End	0531	

Positional Information
Start
Lat: 50 ° 01.76 N
Lon: 144 ° 52.79 W

Bottom
Lat: 50 ° 01.76 N
Lon: 144 ° 52.86 W

End
Lat: 50 ° 01.75 N
Lon: 144 ° 52.91 W

Extra comments:
Mooring calibration cast
CTD to 500 m

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: EX-C Event #: 94 Ship: Tully UTC Date (dd mmm yyyy): 21 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments
			Target	Confirmed	Size	13C	15	15N	Dark	32Si	Part	d Si	NH4	urea	nuts	phyto	ONAr	
			Pressure	✓ Pressure	CHL	15NO3	NH4	urea	Blank		Si							
1		732	5	✓ 5													xx	xx
2		733	OXY MAX	✓ 47													xx	xx
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11		734	0.1%	✓ 80	x						x							
12		735	1%	✓ 50	x						x							
13		736	15%	✓ 25	x						x							
14		737	30%	✓ 15	x						x							
15		738	55%	✓ 5	x						x							
16		739	100%	✓ 2	x						x							
17		740	0.1%	✓ 80		x	x	x		x		x	x	x	x	x	x	
18		741	1%	✓ 50		x	x	x		x		x	x	x	x	x	x	
19		742	15%	✓ 25		x	x	x		x		x	x	x	x	x	x	
20		743	30%	✓ 15		x	x	x		x		x	x	x	x	x	x	
21		744	55%	✓ 5												x	x	x
22		745	55%	✓ 5		x	x	x		x		x	x	x	x			
23		746	100%	✓ 2					x								x	x
24		747	100%	✓ 2		x	x	x		x		x	x	x	xxx			

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

Bottom Depth: 4123 m
 Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1207	0507
Bottom	1210	
End	1221	

Positional Information

Lat:	50 ° 17 38	N
Lon:	144 ° 21 94	W

Bottom

Lat:	50 ° 17 36	N
Lon:	144 ° 21 97	W

End

Lat:	50 ° 17 35	N
Lon:	144 ° 22 05	W

Extra comments:
 Productivity cast
 OUT-OF-ORDER
 EXPORTS CENTRE

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: EX-C Event #: 95 Ship: Tully UTC Date (dd:mmm/yyyy): 21 SEP 2018

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed	Pressure	Nut-F	Sal	TM F								
1		748	300		300	x	x	xx								
2		749	250		250	x	x	xx								
3		750	200		200	x	x	xx								
4		751	200		100	x		xx								
5		752	200		80	x		xxxx								
6		753	150		60	x		xx								
7		754	150		50	x		xx								
8		755	150		40	x		xx								
9		756	150		30	x		xx								
10		757	150		20	xx		xx								
11		758	20		310	x		xx								
12		759	10		310	x		xx								
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

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

Bottom Depth: 4128 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	14:05	7:05
Bottom	14:12	
End	14:22	

Positional Information

Lat:	50	°	18.45	N
Lon:	144	°	22.26	W

Bottom

Lat:	50	°	18.47	N
Lon:	144	°	22.22	W

End

Lat:	50	°	18.52	N
Lon:	144	°	22.22	W

Extra comments:
TMR Shallow

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: EX-C Event #: 96 Ship: Tully UTC Date (dd mmm yyyy): 21 Sep 2018

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ✓ Pressure	OXY		Nut-F	DIC	pH	Gases		TOC DH	TOC SJ	DOC SJ					CDOM SJ
1		760	300	✓	300	x		x	x	x			x	x	x	x	x	x	
2		761	250	✓									x	xx	x	x	x	x	
3		762	250	✓		x		x	xx	x									
4		763	200	✓									x	x	x	x	x	x	
5		764	200	✓		xx		x	x	x	xx								
6		765	175	✓									x	x	xx	x	x	x	
7		766	175	✓		x		xx	x	xx	xx								
8		767	150	✓									x	x	x	x	x	x	
9		768	150	✓		x		x	x	x	xx								
10		769	125	✓									x	x	x	x	x	x	
11		770	125	✓		x		x	x	x	xx								
12		771	100	✓									x	x	x	x	x	x	
13		772	100	✓		x		x	x	x	xx								
14		773	75	✓									x	x	x	x	x	x	
15		774	75	✓		xx		x	x	x	xx								
16		775	50	✓									x	x	x	x	x	x	
17		776	50	✓		x		x	x	x	xx								
18		777	25	✓									x	x	x	xx	x	x	x
19		778	25	✓		x		x	x	x	xx								
20		779	10	✓									x	x	x	x	x	x	
21		780	10	✓		x		x	x	x	xx								
22		781	5	✓									x	x	x	x	x	x	
23		782	5	✓		x		x	x	x	xx								
24		783	0	✓										x	x	x			

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

Bottom Depth: 4127 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1552	0852
Bottom	1557	
End	1614	

Positional Information

Lat:	50 ° 18.49 N
Lon:	144 ° 22.46 W

Start

Bottom

End

Lat: 50 ° 19.47 N
 Lon: 144 ° 22.51 W

Lat: 50 ° 18.41 N
 Lon: 144 ° 22.67 W

Extra comments:
 EXPORTS central station
 Chemistry cast
 DH = Dennis,
 SJ = Sophie&Andrea

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: EX-C Event #: 99 Ship: Tully UTC Date (dd|mmm|yyyy): 21 | 09 | 2018

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials													Comments
			Target Pressure	Confirmed √ Pressure		²³⁴ Th													
1		784	500				x												
2		785	330				x												
3		786	205				x												
4		787	155				x												
5		788	105				x												
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): (HM) YS

Bottom Depth: 4143 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	17:14	10:14
Bottom	17:37	10:37
End	21:12	14:12

Positional Information
Start Lat: 50 ° 17.91 N
Lon: 144 ° 25.62 W

Bottom Lat: 50 ° 17.96 N
Lon: 144 ° 25.69 W

End Lat: 50 ° 18.42 N
Lon: 144 ° 25.71 W

Extra comments:
Large Volume Pumps (x 5)

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: EX-C Event #: 100 Ship: Tully UTC Date (dd mmm yyyy): 21 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed ✓ Pressure	DMS	DMSD	DMSF	Nut-Fr	Chl	HPLC	HPLC	UVic				
						t	d			IOS	NASA					
1		789	300	✓ 300	x			x								
2		790	200	✓ 201	x	x	x	x								796
3		791	150	✓ 151	x	x	x	x								NUT-F
4		792	100	✓ 100	x			x	x	XX	NN					EX-C
5		793	75	✓ 75	x			x	x							50 m
6		794	70	✓ 70				x	x	XX						2018-040
7		795	50	✓ 50	x			x			ND					Bot 8
8		796	50	✓ 50				x	xx	XX	NA					no water
9		797	40	✓ 40	x			x	x							left to
10		798	35	✓ 35				x	x	XX						Sample this
11		799	30	✓ 30	x	x	x	x	x							
12		800	25	✓ 25	x			xx	x	XX	NN					
13		801	20	✓ 20	xx	xx	xx	x	x							
14		802	15	✓ 15	x			x	x	XX	N					
15		803	15	✓ 15				x	xx	xx	n					
16		804	10	✓ 10	x			x	x	XX						
17		805	5	✓ 5	x	x	x	x								
18		806	5	✓ 5					x	XX	n					
19		807	0	✓ 27	x	x	x	x	x							
20																
21																
22																
23																
24																

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): MGBottom Depth: 4142 m
Transmissio Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2155	1455
Bottom	2201	
End	2222	

Positional Information
Start
Lat: 50 ° 18.35 N
Lon: 144 ° 24.95 WBottom
Lat: 50 ° 18.33 N
Lon: 144 ° 24.94 WEnd
Lat: 50 ° 18.28 N
Lon: 144 ° 24.85 WExtra comments:
DMS & Uvic & HPLC cast
x = 25 mm filters
n = nasa 25 mm filters

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: EX-C Event #: 102 Ship: Tully UTC Date (dd mmm yyyy): 21 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure		EDNA	ERNA	ESAG		²³⁴ Th					
1		808	500	✓ 500		x	x	x							
2		809	500	✓ 500		x	x	x							
3		810	335	✓ 336						x					
4		811	300	✓ 300		x	x	x							
5		812	300	✓ 300		x	x	x							
6		813	200	✓ 200						x					
7		814	150	✓ 150						x					
8		815	125	✓ 125						x					
9		816	100	✓ 100		x	x	x							
10		817	100	✓ 100		x	x	x							
11		818	100	✓ 100						x					
12		819	75	✓ 75						x					
13		820	50	✓ 50						x					
14		821	20	✓ 20						x					
15		822	5	✓ 5		x	x	x							
16		823	5	✓ 5		x	x	x							
17															
18															
19															
20															
21															
22															
23															
24															

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

Watchkeeper(s): MG

Bottom Depth: 4140 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	2321	1621
Bottom	2330	
End	2351	

Positional Information

Start Lat: 50 ° 18.19 N
Lon: 144 ° 24.69 W

Start

Bottom

End

Lat: 50 ° 18.17 N
Lon: 144 ° 24.69 W

Lat: 50 ° 18.15 N
Lon: 144 ° 24.66 W

Extra comments:

EXPORTS - centre

Thorium & Sachia's cast

Water Properties Group

Sampling Log

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

Cruise ID:

2018-040

Station:

EX-C

Event #:

104

Ship:

Tully

UTC Date (dd mmm yyyy):

22

SEP

2018

Event #		Ship		Tully		UTC Date (dd												
Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed Pressure	Nut-C	Nut-F	Sal	TM F	TM UF									
1		824	4000	4000	x	x	x	xx										
2		825	3000	3000	x	x	x	xx										
3		826	2000	2000	x	x	x	xx										
4		827	1800	1800	xx	xx	x	xx										
5		828	1600	1600	x	x	x	xx										
6		829	1400	1400	x	x	x	xx										
7		830	1200	1200	x	x		xx										
8		831	1100	1100	x	x		xx										
9		832	1000	1000	x	x		xx										
10		833	800	800	x	x		xx										
11		834	600	600	x	x		xx										
12		835	400	400	x	x		xx										
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Version: 25 Nov 2011

Transmissometer to be cleaned before each use

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

Bottom Depth: 4132 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0145	1845
Bottom	0253	
End	0447	

Positional Information

Lat:	50° 17.89	N
Lon:	144° 23.78	W

▼

Lat:	50° 17.99	N
Lon:	144° 23.95	W

▼

Lat:	50° 18.43	N
Lon:	144° 24.47	W

Extra comments:
TMR Deep

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040

Station: EX-W

Event #: 105

Ship: Tully

UTC Date (dd mmm/yyyy): 22 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	²³⁴ Th		HPLC	HPLC	CHL	Nut-F	ONAr	Oxy UVic			
1		836	335	✓ 335	x										
2		837	200	✓	x										
3		838	150	✓	x										
4		839	125	✓	x										
5		840	100	✓	x										
6		841	75	✓	x										
7		842	75	✓				nn	x	x					
8		843	50	✓	x										
9		844	50	✓				nn	x	x					
10		845	20	✓	x										
11		846	20	✓				nn	x	x					
12		847	5	✓			XX	NN	x	x					
13		848	5	✓							xx	xx			
14		849	Oxy Max	✓ 45							xx	xx			
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 4211 m
Transmissio Cleaned: ☒ Y / ☐ N

	UTC	Local
Start	13 38	06 38
Bottom	13 40	
End	13 54	

Positional Information
Start
Lat: 50 ° 22 .84 N
Lon: 144 ° 38 59 W

Bottom
Lat: 50 ° 22 86 N
Lon: 144 ° 38 58 W

End
Lat: 50 ° 22 .87 N
Lon: 144 ° 38 .57 W

Extra comments:
EX-West corner
Thorium, HPLC, ONAr
OUT-OF-ORDER
1,2,3,4,5,6,7,8,9,14,10,11,12,13

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: EX-W Event #: 106 Ship: Tully UTC Date (dd mmm yyyy): 22 Sep 2018

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure		Nut-F	Sal	TM F	TM UF	Ligs					
1		850	300	300		x	x	x							
2		851	250	249		x	x	x							
3		852	200	200		x	x	x							
4		853	150	149		x		x							
5		854	100	100		x		x x							
6		855	80	80		x		x							
7		856	60	60		x		x							
8		857	50	50		x x		x							
9		858	40	40		x		x							
10		859	30	30		x		x							
11		860	20	20		x		x							
12		861	10	10		x		x							
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): JC/AT

Bottom Depth: 4211 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1407	
Bottom	1415	
End	1424	

Positional Information
Start
Lat: 50° 22.87 N
Lon: 144° 38.59 W

Bottom
Lat: 50° 22.88 N
Lon: 144° 38.59 W

End
Lat: 50° 22.88 N
Lon: 144° 38.62 W

Extra comments:
TMR Shallow

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: EX-W Event #: 108 Ship: Tully UTC Date (dd mmm/yyyy): 22 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ✓ Pressure	OXY		Nut-F		pH	Gases		TOC DH	TOC SJ	DOC SJ	CDOM SJ	PIC SJ	POC SJ	Gels	
1		862	300	✓ 300	x		x		x			x	x	x	x	x	x		
2		863	250	✓								x	x	x	x	x	x		
3		864	250	✓		x x		x		x									
4		865	200	✓								x	x	x	x	x	x		
5		866	200	✓		x		x		x	x x								
6		867	175	✓								x	x	x	x	x	x		
7		868	175	✓		x		x		x	x x								
8		869	150	✓								x	x	x	x	x	x		
9		870	150	✓		x		x		x	x x								
10		871	125	✓								x	x	x	x x	x	x	x	
11		872	125	✓		x		x		x	x x								
12		873	100	✓								x	x x	x	x	x	x		
13		874	100	✓		x		x		x	x x								
14		875	75	✓								x	x	x	x	x	x		
15		876	75	✓		x		x x		x	x x								
16		877	50	✓								x	x	x	x	x	x		
17		878	50	✓		x		x		x x	x x								
18		879	25	✓								x	x	x x	x	x	x	x	
19		880	25	✓		x		x		x	x x								
20		881	10	✓								x	x	x	x	x	x		
21		882	10	✓		x x		x		x	x x								
22		883	5	✓								x	x	x	x	x	x		
23		884	5	✓		x		x		x	x x								
24		885	0										x	x	x				

Profile type: ROS TRM X-Niskin other?
Watchkeeper(s): 11M+

Bottom Depth: 4202 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	15 11	08 11
Bottom	15 17	
End	15 33	

Positional Information
Lat: 50 ° 22 . 88 N
Lon: 144 ° 38 . 61 W

Lat: 50 ° 22 . 86 N
Lon: 144 ° 38 . 60 W

Lat: 50 ° 22 . 78 N
Lon: 144 ° 38 . 59 W

Extra comments:
EXPORTS West corner
Chemistry cast
DH = Dennis,
SJ = Sophie&Andrea

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040

Station: EX-N

Event #: 109

Ship: Tully

UTC Date (dd mmm yyyy): 22 09 18

Niskin #		Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Ship: Tully		UTC Date (dd m	
				Target Pressure	Confirmed ✓ Pressure	²³⁴ Th		HPLC IOS	HPLC NASA	CHL	Nut-F	ONAr	Oxy UVic					Comments	
1			886	335	✓ 336	x													
2			887	200	✓ 200	x													
3			888	150	✓ 150	x													
4			889	125	✓ 125	x													
5			890	100	✓ 100	x													
6			891	75	✓ 75	x													
7			892	75	✓ 75														
8			893	50	✓ 50	x			nn	x	x								
9			894	50	✓ 50														
10			895	20	✓ 20	x			nn	x	x								
11			896	20	✓ 20														
12			897	5	✓ 5				nn	x	x								
13			898	5	✓ 5			XX	NN	x	x								
14			899	Oxy Max	✓ 40							xx	xx						
15												xx	xx						
16																		loop oxy's - UVic	
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Version: 25 Nov 2011

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

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

Bottom Depth: 4054 m
 Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1947	1247
Bottom	1953	
End	2011	

Positional Information

Lat:	50° 36.80	N
Lon:	144° 03.89	W

Start

Lat:	50° 36.86	N
Lon:	144° 03.87	W

Bottom

Lat:	50° 36.81	N
Lon:	144° 03.88	W

End

Extra comments:
 EX-North corner
 Thorium, HPLC, ONAr
 OUT-OF-ORDER

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: EX-N Event #: 111 Ship: Tully UTC Date (dd mmm yyyy): 22 SEP 2018

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ☒ Pressure		Nut-F	Sal	TM F	TM UF	Ligs					
1		900	300	300		x	x	x							
2		901	250	249		x	x	x							
3		902	200	200		x	x	x							
4		903	150	150		x		x							
5		904	100	100		x		x x							
6		905	80	80		x x		x							
7		906	60	60		x		x							
8		907	50	50		x		x							
9		908	40	40		x		x							
10		909	30	30		x		x							
11		910	20	20		x		x							
12		911	10	10		x		x							
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 4054 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2044	
Bottom	2050	
End	2058	

Positional Information

Lat:	50	°	36.78	N
Lon:	144	°	04.01	W

▼

Lat:	50	°	36.79	N
Lon:	144	°	04.03	W

▼

Lat:	50	°	36.76	N
Lon:	144	°	04.08	W

Extra comments:
TMR Shallow

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: EX-N Event #: 112 Ship: Tully UTC Date (dd mmm yyyy): 22 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed Pressure	OXY		Nut-F		pH	Gases		TOC DH	TOC SJ	DOC SJ	CDOM SJ	PIC SJ	POC SJ	Gels	
1		912	300	✓ 300	x		x		x			x	x	x	x	x	x	x	
2		913	250	✓ 250								x	x	x	x	x	x	x	
3		914	250	✓ 250	xx		x		x										
4		915	200	✓ 200								x	x	x	x	x	x	x	
5		916	200	✓ 200	x		x		x	xx									
6		917	175	✓ 175								x	x	x	x	x	x	x	
7		918	175	✓ 175	x		x		x	xx									
8		919	150	✓ 150								x	x	x	x	x	x	x	
9		920	150	✓ 150	x		x		x	xx									
10		921	125	✓ 125								x	x	x	xx	x	x	x	
11		922	125	✓ 125	x		x		x	xx									
12		923	100	✓ 100								x	xx	x	x	x	x	x	
13		924	100	✓ 100	x		x		x	xx									
14		925	75	✓ 75								x	x	x	x	x	x	x	
15		926	75	✓ 75	x		xx		x	xx									
16		927	50	✓ 50								x	x	x	x	x	x	x	
17		928	50	✓ 50	x		x		xx	xx									
18		929	25	✓ 25								x	x	xx	x	x	x	x	
19		930	25	✓ 24	x		x		x	xx									
20		931	10	✓ 10								x	x	x	x	x	x	x	
21		932	10	✓ 10	xx		x		x	xx									
22		933	5	✓ 5								x	x	x	x	x	x	x	
23		934	5	✓ 5	x		x		x	xx									
24		935	0	✓ 1.9									x	x	x				

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

Bottom Depth: 4055 m
Transmisso Cleaned: Y N

Time	UTC	Local
Start	2124	1424
Bottom	2130	
End	2149	

Positional Information

Lat:	50 ° 36.78	N
Lon:	144 ° 03.98	W

Bottom

Lat:	50 ° 36.79	N
Lon:	144 ° 03.98	W

End

Lat:	50 ° 36.83	N
Lon:	144 ° 03.94	W

Extra comments:
EXPORTS North corner
Chemistry cast
DH = Dennis,
SJ = Sophie&Andrea

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: EX-E Event #: 114 Ship: Tully UTC Date (dd mmm yyyy): 23 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments		
			Target	Confirmed	²³⁴ Th		HPLC	HPLC	CHL	Nut-F	ONAr	Oxy							
			Pressure	✓ Pressure								UVic							
1		936	335	✓	335	x													
2		937	200	✓	200	x													
3		938	150	✓	150	x													
4		939	125	✓	125	x													
5		940	100	✓	100	x													
6		941	75	✓	75	x													
7		942	75	✓	75				nn	x	x								
8		943	50	✓	50	x													
9		944	50	✓	50				nn	x	x								
10		945	20	✓	20	x													
11		946	20	✓	20				nn	x	x								
12		947	5	✓	5			XX	NN	x	x								
13		948	5	✓	5							xx	xx						
14		949	⁴⁶ Oxy Max	✓	46							xx	xx					Loop Oxy Uvic	
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Profile type:
ROS TRM X-Niskin other?

Watchkeeper(s): MG

Bottom Depth: 4100 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0109	1809
Bottom	0115	
End	0134	

Positional Information

Lat: 50 ° 10.82 N

Lon: 144 ° 08.78 W

Lat: 50 ° 10.81 N

Lon: 144 ° 08.74 W

Lat: 50 ° 10.75 N

Lon: 144 ° 08.66 W

Extra comments:

EX-East corner

Thorium, HPLC, ONAr

OUT-OF-ORDER

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040

Station: EX-E

Event #: 116

Ship: Tully

UTC Date (dd mmm yyyy): 23 09 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments	
			Target Pressure	Confirmed Pressure	OXY		Nut-F		pH	Gases		TOC DH	TOC SJ	DOC SJ	CDOM SJ	PIC SJ	POC SJ		Gels
1		950	300	✓	300	x		x		x			x	x	x	x	x	x	
2		951	250	✓	250								x	x	x	x	x	x	
3		952	250	✓	251	xx		x		x								x	
4		953	200	✓	200								x	x	x	x	x	x	
5		954	200	✓	200	x		x		x	xx							x	
6		955	175	✓	175								x	x	x	x	x	x	
7		956	175	✓	175	x		x		x	xx							x	
8		957	150	✓	150								x	x	x	x	x	x	
9		958	150	✓	150	x		x		x	xx								
10		959	125	✓	125								x	x	x	xx	x	x	
11		960	125	✓	125	x		x		x	xx								
12		961	100	✓	100								x	xx	x	x	x	x	
13		962	100	✓	100	x		x		x	xx								
14		963	75	✓	75								x	x	x	x	x	x	
15		964	75	✓	75	x		xx		x	xx								
16		965	50	✓	51								x	x	x	x	x	x	
17		966	50	✓	51	x		x		xx	xx								
18		967	25	✓	25								x	x	xx	x	x	x	
19		968	25	✓	25	x		x		x	xx								
20		969	10	✓	10								x	x	x	x	x	x	
21		970	10	✓	11	xx		x		x	xx								
22		971	5	✓	5								x	x	x	x	x	x	
23		972	5	✓	5	x		x		x	xx								
24		973	0	✓	3.6									x	x	x			

Version: 25 Nov 2011

Transmissometer to be cleaned before each use.

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

Bottom Depth: 4163 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0214	1914
Bottom	0220	
End	0239	

Positional Information

Lat:	50 ° 10.73	N
Lon:	144 ° 08.50	W

Bottom

Lat:	50 ° 10.69	N
Lon:	144 ° 08.48	W

End

Lat:	50 ° 10.58	N
Lon:	144 ° 08.34	W

Extra comments:
EXPORTS East corner
Chemistry cast
DH = Dennis,
SJ = Sophie&Andrea

Water Properties Group

Sampling Log

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

Cruise ID:

2018-040

Station:

P4

Event #:

122

Ship:

Tully

UTC Date (dd mmm yyyy):

26 9 18

Cruise ID: 2018-040			Station: F4		Event: 1												Comments					
Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										gases							
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-F	Nut-C	Sal	CHL	HPLC												
1	1	974	Bot-10	✓	1323	x	x	x														
2	2	975	1250	✓		x	x	x	x													
3	3	976	1250	✓		xx	x	x	xx													
4	4	977	1000	✓		x	x	x	xx													
5	5	978	800	✓		x	x	x	x													
6	6	979	600	✓		x	xx	xx														
7	7	980	400	✓		x	x	x														
8	8	981	300	✓		x	x															
9	9	982	250	✓		x	x															
10	10	983	200	✓		x	x															
11	11	984	175	✓		xx	x															
12	12	985	150	✓		x	x															
13	13	986	125	✓		x	xx															
14	14	987	100	✓		x	x			x												
15	15	988	75	✓		x	x			x												
16	16	989	50	✓		x	x			xx												
17	17	990	25	✓		x	x			x												
18	18	991	10	✓		x	x			x												
19	19	992	5			xx	x		x				xx									
20	20	993	5							xx	xx									FLUO -		
21	21	994	B-10	✓	1323															seawater for Cnd		
22																				21 didn't fire		
23																						
24																						

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

Bottom Depth: 1312 mTransmisso Cleaned: ☒ Y ☐ N

	UTC	Local
Start	1401	0701
Bottom	1425	
End	1505	

Positional Information

Lat:	48 ° 30.93	N
Lon:	126 ° 39.89	W

Start

Lat:	48 ° 30.92	N
Lon:	126 ° 39.97	W

Bottom

Lat:	48 ° 30.83	N
Lon:	126 ° 39.80	W

End

Extra comments:
P4 return
OUT OF ORDER
1, 21, 2, 3, 4 → 20

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040

Station: JF2

Event #: 124

Ship: Tully

UTC Date (dd mmm yyyy): 27 9 18

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	YS										
1		995	20	✓ 20	x										
2		996	20	✓	x										
3		997	20	✓	x										
4		998	20	✓	x										
5		999	20	✓	x										
6		1000	20	✓	x										
7		1001	20	✓	x										
8		1002	20	✓	x										
9		1003	20	✓	x										
10		1004	20	✓	x										
11		1005	20	✓	x										
12		1006	20	✓	x										
13		1007	20	✓	x										
14		1008	20	✓	x										
15		1009	20	✓	x										
16		1010	20	✓	x										
17		1011	20	✓	x										
18		1012	20	✓	x										
19		1013	20	✓	x										
20		1014	20	✓	x										
21		1015	20	✓	x										NO TRIP
22		1016	20	✓	x										
23		1017	20	✓	x										
24		1018	20	✓	x										

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

Watchkeeper(s): HMF

Bottom Depth: 105 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	06 34	23
Bottom	06 37	
End	06 42	

Positional Information

Start

Lat: 49 ° 18 - 06 N

Lon: 124 ° 00 . 04 W

Bottom

Lat: 48 ° 18 06 N

Lon: 124 ° 00 08 W

End

Lat: 48 ° 18 08 N

Lon: 124 ° 00 18 W

Extra comments:

Water for Yuanji Sun

#21 NO TRIP

Water Properties Group

Sampling Log

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

Cruise ID: 2018-040 Station: JF2 Event #: 126 Ship: Tully UTC Date (dd mmm yyyy): 27 9 17

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	YS										
1		1019	160	✓	160	x									
2		1020	160	✓		x									
3		1021	160	✓		x									
4		1022	160	✓		x									
5		1023	160	✓		x									
6		1024	160	✓		x									
7		1025	160	✓		x									
8		1026	160	✓		x									
9		1027	160	✓		x									
10		1028	160	✓		x									
11		1029	160	✓		x									
12		1030	160	✓		x									
13		1031	160	✓		x									
14		1032	160	✓		x									
15		1033	160	✓		x									
16		1034	160	✓		x									
17		1035	160	✓		x									
18		1036	160	✓		x									
19		1037	160	✓		x									
20		1038	160	✓		x									
21		1039	160	✓		x									NO TRIP
22		1040	160	✓		x									
23		1041	160	✓		x									
24		1042	160	✓		x									

Profile type:
ROS TRM X-Niskin other?

Watchkeeper(s): Hm +

Bottom Depth: 185 m

Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	0716	0016
Bottom	0719	
End	0727	

Positional Information

Start

Lat: 48 ° 18 - 14 N

Lon: 124 ° 00 - 42 W

Bottom

Lat: 48 ° 18 - 15 N

Lon: 124 ° 00 - 44 W

End

Lat: 48 ° 18 - N

Lon: 124 ° 00 - W

Extra comments:

Water for Yuanji Sun

FIXED # 21 BUT

STILL NO TRIP