

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

Haro 59

Event #:

002

Ship:

Tully

UTC Date (dd mmm yyyy):

17 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	DIC	Oxy	Nut-fr	Sal	Nd						
1	x 1	1	Bot-10	✓ 209	x	x	x								EXTREME LO 22SM WIRE OUT
2	4	2	200	✓ 128	xx	x	x								LOTS OF CURRENT
3	5	3	475	✓ 200	x	x	x								
4	6	4	150	✓ 175	x	x	x								
5	7	5	125	✓ 150	x	xx	x								
6	8	6	100	✓ 100	x	x	x								
7	9	7	80	✓ 82	xx	x	xx								
8	10	8	60	✓ 61	x	x	x								
9	11	9	50	✓ 51	x	x	x								
10	12	10	40	✓ 40	x	x	x								
11	13	11	30	✓ 30	x	x	x								
12	14	12	20	✓ 20	x	x	x								
13	15	13	10	10.2	xx	x	x								
14	16	14	5	5.4	x	xx	x								
15	19	15	0	2	x	x	x								
16	x 2	16	Bot-10	✓ 209					x						
17	x 3	17	Bot-10	✓ 209					x						
18	17	18	5	5.4					x						
19	18	19	5	5.4					x						
20															
21															
22															
23															
24															

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

Bottom Depth: 232 m

Transmisso Cleaned: Y N

Time	UTC	Local
Start	2226	1526
Bottom	2236	
End	2308	

Positional Information

Start
Lat: 48 ° 36.85 N
Lon: 123 ° 17.79 W

Bottom
Lat: 48 ° 36.95 N
Lon: 123 ° 14.83 W

End
Lat: 48 ° 38.01 N
Lon: 123 ° 15.55 W

Extra comments:

OUT-OF-ORDER

1-16-17-2-3 ... 13-14-18-19-15

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

JF2

Event #:

6

Ship:

Tully

UTC Date (dd mmm yyyy):

18 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	DIC	Oxy	Nut-fr	Sal	Nd	Chl	HPLC	RT UBC						
					GC/54	MGH	GC/105			RI	RI	gases						
1	1	20	x Bot-10	✓ 178	x	x	x											
2	4	21	150	✓ 150	xx	x	x											
3	5	22	125	✓ 125	x	x	x											
4	6	23	100	✓ 100	x	x	x											
5	7	24	80	✓ 80	x	xx	x											
6	8	25	60	✓ 60	xx	x	x											
7	9	26	50	✓ 50	x	x	xx											
8	10	27	40	✓ 40	x	x	x											
9	11	28	30	✓ 31	x	x	x											
10	12	29	20	✓ 20	xx	x	x											
11	13	30	10	✓ 10	x	x	x											
12	14	31	5 x	✓ 5	x	x	x			xx	xx	xx						FLOR ~ 6.5
13	17	32	0 x	✓ 1.9	x	x	x											
14	2	33	x Bot-10	✓ 178					x									
15	3	34	x Bot-10	✓ 178					x									
16	15	35	5 x	✓ 5					x									
17	16	36	5 x	✓ 5					x									
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Profile type:

ROS TRM X-Niskin other?

Watchkeeper(s):

MG

Bottom Depth:

187

m

Transmisso Cleaned:

Y / N

Time

UTC

Local

Start

0439

2039

Bottom

0443

End

0501

Positional Information

Lat:

48 ° 17.95

N

Lon:

124 ° 00.04

W

Bottom

Lat:

48 ° 17.96

N

Lon:

124 ° 00.07

W

End

Lat:

48 ° 17.98

N

Lon:

124 ° 00.18

W

Extra comments:

OUT-OF-ORDER

(1-14-15)-2-3 ... 11-(12-16-17)-13

Also has loops for Sal x1, Nut x1,

Chl x2 (and gases x2)

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P1 Event #: 10 Ship: Tully UTC Date (dd mmm yyyy): 18 03 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target	Confirmed	Nut-F	Sal	Chl	HPLC	DIC	Oxy	pH	RF gases			
			Pressure	✓ Pressure	PN	PR	PN	SR	MLBS	SR	GL	UBC			
1	1	37	Bot-10	✓	112	x			xx	x	xxx				
2	2	38	30	✓	30	x			x	x	x				
3	3	39	5	✓	5	x	x		x	xx	x	xx			
4	4	40	5	✓	5	x		xx	xx						HPLC 295 ml
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 116 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1244	
Bottom	1247	
End	1253	

Positional Information

Lat:	48 ° 34.430	N
Lon:	125 ° 30.000	W

▼

Lat:	48 ° 34.47	N
Lon:	125 ° 29.96	W

▼

Lat:	48 ° 34.44	N
Lon:	125 ° 29.92	W

Extra comments:
Will also have loops for Chl x2
Sal x1, Nut x1, ~~OxyLab x2~~
and OxyT x2 Do Loops
NOT TAKEN

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P2

Event #:

12

Ship:

Tully

UTC Date (dd mmm yyyy):

18 Aug 2016

Cruise ID: 2016-08			Station: P2		Event: 1										Comments		
Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials						RT						
			Target Pressure	Confirmed Pressure	Oxy	Nut-F	Nut-C	Sal	DIC	pH	UBC	gases					
				✓	SR	RE 135		MR	MP 135	6C							
1	1	41	Bot-10	✓ 105	x	x			x	x							
2	2	42	100	✓ 100	xx	x			x	x							
3	3	43	75	✓ 74	x	x			xx	x							
4	4	44	75	✓ 75	x	x			x	x							
5	5	45	50	✓ 50	x	x			x	xxx							
6	6	46	25	✓ 25	x	xx			x	x							
7	7	47	10	✓ 10	x	x			x	x							
8	8	48	5	✓ 5	xx	x		x	x	x	xx						
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

http://www.pa

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

Bottom Depth: 115 m
 Transmisso Cleaned: (Y) / N

	UTC	Local
Start	1513	0813
Bottom	1517	
End	1526	

Positional Information
 Start
 Lat: 49 ° 35.97 N
 Lon: 125 ° 59.97 W

Bottom
 Lat: 49 ° 35.95 N
 Lon: 125 ° 59.95 W

End
 Lat: 49 ° 35.900 N
 Lon: 125 ° 59.90 W

Extra comments:
 Deep cast
 Will also have loops for Sal x1,
 Nut x1, OxyLab x2, OxyT x2
 and gases x2

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P2

Event #:

116

Ship:

Tully

UTC Date (dd mmm yyyy):

18 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	DMS	DMSP	DMSP	Nut-Fr	Chl	HPLC	UVic	Bugs			
1		49	100	✓ 101								x			
2		50	100	✓ 101	x	x	x	x	x		x				
3		51	75	✓ 74	x			x	x		x				
4		52	50	✓ 49	x			x	x		x				
5		53	50	✓ 49								x			
6		54	40	✓ 41	x			x	x						
7		55	30	✓ 30	x			x	xx	xx					Fluo 0.15
8		56	25	✓ 25	x			x	xx	xx					Fluo 0.17
9		57	20	✓ 20	xx	xx	xx	x	xx	xx	x				Fluo ~0.3
10		58	15	✓ 15	x			xx	xx	xx					Fluo ~2.0
11		59	10	✓ 10	x			x	xx	xx	x				Fluo 2.3
12		60	5	✓ 5	x	x	x	x	xx	xx	x				Fluo 6.2
13		61	5	✓ 5								x			
14		62	0	✓ 30	x	x	x	x	x						
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 11.4 m
 Transmisso Cleaned: ☒ Y / N

Time	UTC	Local
Start	1607	0907
Bottom	1609	
End	1622	

Positional Information

Start	Lat: 48° 35.60	N
	Lon: 125° 59.57	W

Bottom

	Lat: 48° 35.58	N
	Lon: 125° 59.54	W

End

	Lat: 48° 35.52	N
	Lon: 125° 59.55	W

Extra comments:
 DMS cast
 Will also have loops for Chl x2

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P3 Event #: 17 Ship: Tully UTC Date (dd mmm yyyy): 18 AUG 2016

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	Nut-F	Sal	Chl	HPLC	Gases									
										UBC	Rob								
1		63	5	✓	5.3	x	x	xx	xx	xx									FLOR ~ 4.5 ↓
2																			~ 11 ↑
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: 810 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1849	1149
Bottom	1903	
End	1919	

Positional Information
Start
Lat: 48 ° 37.49 N
Lon: 126 ° 19.87 W

Bottom
Lat: 48 ° 34.48 N
Lon: 126 ° 19.86 W

End
Lat: 48 ° 37.49 N
Lon: 126 ° 19.80 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P4 Event #: 18 Ship: Tully UTC Date (dd mmm yyyy): 18 AUG 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed ✓ Pressure			Cs											
1		64	150	✓ 149			x											
2		65	150	✓ 149			x											
3		66	150	✓ 150			x											
4		67	150	✓ 150			x											
5		68	150	✓ 150			x											
6		69	150	✓ 150			x											
7		70	100	✓ 100			x											
8		71	100	✓ 100			x											
9		72	100	✓ 100			x											
10		73	100	✓ 101			x											
11		74	100	✓ 100			x											
12		75	100	✓ 101			x											
13		76	50	✓ 50			x											
14		77	50	✓ 50			x											
15		78	50	✓ 50			x											
16		79	50	✓ 50			x											
17		80	50	✓ 50			x											
18		81	50	✓ 50			x											
19		82	5	✓ 5			x											
20		83	5	✓ 5			x											
21		84	5	✓ 5			x											
22		85	5	✓ 5			x											
23		86	5	✓ 5			x											
24		87	5	✓ 5			x											

Version: 25 Nov 2014

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

Bottom Depth: 1310 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2114	1414
Bottom	2116	
End	2126	

Positional Information

Lat:	48 °	39.04	N
Lon:	126 °	39.88	W

Start

Bottom

End

Lat: 48 ° 39.05 N
Lon: 126 ° 39.87 W

Lat: 48 ° 39.03 N
Lon: 126 ° 39.89 W

Extra comments:
Cesium 150m cast
IN FILE AS 18CS
LOOP FOR RICK r

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P4 Event #: 20 Ship: Tully UTC Date (dd mmm yyyy): 18 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	DMS	DMSP	DMSP	Nut-Fr	Chl	HPLC	Phyto				
1		88	300	✓ 299	x			x							big leak. Valve not closed.
2		89	200	✓ 200	x	x	x	x							
3		90	175	✓ 175	x	x	x	x							
4		91	100	✓ 101	x	x	x	xx	x						
5		92	75	✓ 76	x			x	x						
6		93	60	✓ 60				x	xx	xx					Fluo 0.207 5001
7		94	50	✓ 50	x			x	xx	xx					Fluo 0.293 5001
8		95	40	✓ 40	x			x	xx	xx					Fluo 0.488 5001
9		96	30	✓ 30	x			x	xx	xx					Fluo 1.41
10		97	25	✓ 20	x			x	x						
11		98	20	✓ 25	xx	xx	xx	x	x						
12		99	15	✓ 15	x			x	xx	xx					Fluo 5.18
13		100	10	✓ 10	x			x	x						
14		101	5	✓ 5	x	x	x	x	xx	xx	xxx				Fluo 5.11
15		102	0		x	x	x	x	x						
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 1344 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2156	1456
Bottom	2200	
End	2225	

Positional Information

Lat:	48 °	39.09	N
Lon:	126 °	39.85	W

Start

Bottom

End

Lat:	48 °	39.06	N
Lon:	126 °	39.83	W

Lat:	48 °	39.03	N
Lon:	126 °	39.88	W

Extra comments:
DMS cast
Will also have loops for Chl x2

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08

Station: P4

Event #: 23

Ship: Tully

UTC Date (dd mmm yyyy): 19 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-F	Nut-C	Sal	DIC	pH		DNA	gases	SAGs				
					MO 155	SP	SH	11.6	4.4	8.0			AK 155					
1		103	Bot-10	✓	1301	x	x	x	x	x		x	xx	x				
2		104	1250	✓	1249	x	x	x	x	x		x	xx	x				
3		105	1250	✓	1250	xx	x	x	xx	xx	x							
4		106	1000	✓	998	x	x	x	xx	x	x	x	xx	x				
5		107	800	✓	800	x	x	x	x	x	x	x	xx	x				
6		108	600	✓	598	x	xx	xx		x	x	x	xx	x				
7		109	400	✓	400	x	x	x		x	x	x	xx	x			STANDBY AT 370 ~1 min	
8		110	300	✓	300	x	x			x	x	x	xx	x				
9		111	250	✓	250	x	x			x	xxx							
10		112	200	✓	201	x	x			x	x	x	xx	x				
11		113	175	✓	175	x	x			x	x							
12		114	150	✓	150	x	x			x	x	x	xx	x				
13		115	125	✓	125	x	xx			x	x							
14		116	100	✓	100	x	x			x	x	x	xx	x				
15		117	75	✓	75	xx	x			x	x							
16		118	50	✓	50	x	x			x	x	x	xx	x				
17		119	25	✓	25	x	x			x	x	x	xx	x				
18		120	10	✓	10	x	x			x	xxx	x		x				
19		121	5	✓	5	x	x		x	x	x		xx					
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 1313 m
Transmisso Cleaned: (Y) / N

	UTC	Local
Start	0259	1959
Bottom	0321	
End	0404	

Positional Information

Lat:	48 ° 39.09	N
Lon:	126 ° 39.87	W

Start

Bottom

Lat:	48 ° 39.13	N
Lon:	126 ° 38.84	W

End

Lat:	48 ° 38.98	N
Lon:	126 ° 39.93	W

Extra comments:
Deep cast
Will also have loops for Sal x1,
Nut x1, OxyLab x2, OxyT x2
and gases

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P4 Event #: 24 Ship: Tully UTC Date (dd mmm yyyy): 19 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed ✓ Pressure			Cs											
1	1	122	500	/	500			x										
2	2	123	500	/				x										
3	3	124	500	/				x										
4	↓	125	500	/				x										
5		126	500	/				x										
6		127	500	/				x										
7		128	400	/		400			x									
8		129	400	/					x									
9		130	400	/					x									
10		131	400	/					x									
11		132	400	/					x									
12		133	400	/					x									
13		134	300	/		300			x									
14		135	300	/					x									
15		136	300	/					x									
16	137	300	/					x										
17	138	300	/					x										
18	139	300	/					x										
19	140	200	/		200			x										
20	141	200	/					x										
21	142	200	/					x										
22	143	200	/					x										
23	144	200	/					x										
24	24	145	200	/				x										

Profile type:
ROS TRM X-Niskin other?

Watchkeeper(s):
SL

Bottom Depth: 1294 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0901	
Bottom	0911	
End	0925	

Positional Information

Start

Lat: 40° 39.45 N

Lon: 126° 40.11 W

Bottom

Lat: 40° 39.47 N

Lon: 126° 40.12 W

End

Lat: 40° 39.47 N

Lon: 126° 40.10 W

Extra comments:

Cesium 500m cast

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P4 Event #: 25 Ship: Tully UTC Date (dd mmm yyyy): 19 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	UBC												
1	1	146	Bot-10	/ 1303	x												1303m
2	2	147	Bot-10	/													
3		148	Bot-10	/													
4		149	Bot-10	/													
5		150	1000	/ 1000	x												
6		151	1000	/													
7		152	1000	/													
8		153	1000	/													
9		154	500	/ 500	x												
10		155	500	/													
11		156	500	/													
12		157	500	/													
13		158	10	/ 10	x												
14		159	10	/													
15		160	10	/													
16		161	10	/													
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 1296 m
Transmisso Cleaned: Y N

Time	UTC	Local
Start	1002	
Bottom	1026	
End	1054	

Positional Information

Lat:	48 ° 39.511	N
Lon:	126 ° 40.201	W

Start

Lat:	48 ° 39.509	N
Lon:	126 ° 40.310	W

Bottom

Lat:	48 ° 39.510	N
Lon:	126 ° 40.211	W

End

Extra comments:
Jade's cast

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P4 Event #: 26 Ship: Tully UTC Date (dd mmm yyyy): 19 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed Pressure	170	ONAr	Oxy	180 inc	NO3 inc	NH4 inc	CHL	Nut-Fr	NH4	Sal	C14	UVic		bugs
1		162	O2 max	/ 30	xx		xx							x				
2		163	5 m	/ 1	xx	xx	xx		x									
3																		
4		164	250	/ 250												x		
5		165	150	/ 150												x		
6		166	50	/ 50												x		
7		167	20	/ 20												x		
8		168	10	/ 10												x		
9		169	5	/ 5												x		
10																		
11		170	100	/ 100													x	
12		171	50	/ 50													x	
13		172	5	/ 5													x	
14																		
15																		
16																		
17		173	100%	/ 1			xx	xxx	xxxxx		x	x						
18		174	100%	/ 1						xxxxx			xx					
19		175	55%	/ 1		xx	xx	xxx	x	x	x	x	xx	x				
20		176	30%	/ 1			xx	xxx	x	x	x	x	xxxx	x				
21		177	15%	/ 4			xx	xxx	x	x	x	x	xx	x				
22		178	1%	/ 100			xx	xxx	x	x	x	x	xx	x				
23		179	55%	/ 1											x			
24																		

Profile type: ROS TRM X-Niskin other?
Watchkeeper(s):Bottom Depth: 1292 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1121	
Bottom	1130	
End	1150	

Positional Information		
Start	Lat: 48° 39.510	N
	Lon: 126° 40.110	W
	▼	
Bottom	Lat: 48° 39.510	N
	Lon: 126° 40.10	W
	▼	
End	Lat: 48° 39.540	N
	Lon: 126° 40.140	W

Extra comments:
Productivity cast
4, 5, 11, 6, 12, 1, 7, 22,
8, 9, 13, 21, 2, 17 → 20,
23

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P5

Event #: 27

Ship: Tully

UTC Date (dd mmm yyyy): 19 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Nut-F	Sal	Chl	HPLC	Gases	UBC	U				
1		180	2000	/ 2000		x									
2		181	1500	/ 1500		x									
3		182	1000	/ 1000		x									
4		183	500	/ 500							x				
5		184	400	/ 400							x				
6		185	300	/ 300							x				
7		186	200	/ 199							x				
8		187	150	/ 150							x				
9		188	100	/ 99							x				
10		189	50	/ 49							x				
11		190	5	/ 4							x				
12		191	5	/ 4	x	x	xx	xx	xx						HPLC ~ 4.5
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Profile type:

ROS TRM X-Niskin other?

Watchkeeper(s):

Bottom Depth: 2085 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1432	
Bottom	1509	
End	1554	

Positional Information

Lat:	48 ° 41.490	N
Lon:	127 ° 10.030	W

Lat:	48 ° 41.500	N
Lon:	127 ° 9.970	W

Lat:	48 ° 41.500	N
Lon:	127 ° 9.960	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P6 Event #: 28 Ship: Tully UTC Date (dd mmm yyyy): 19 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials														Comments
			Target Pressure	Confirmed ✓ Pressure	Nut-F	Sal	Chl	HPLC	Gases										
1		03	5	✓	5	x	x	x x	x x	x x									
2		192																	
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

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

Bottom Depth: 2545 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1846	1146
Bottom	1922	
End	1957	

Positional Information

Lat:	48 ° 44.61	N
Lon:	127 ° 39.96	W

▼

Lat:	48 ° 44.67	N
Lon:	127 ° 40.09	W

▼

Lat:	48 ° 44.70	N
Lon:	127 ° 40.180	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P7 Event #: 29 Ship: Tully UTC Date (dd mmm yyyy): 19 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	Nut-F	Sal	Chl	HPLC	Gases									
										UBC									
1	1	193	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): GC

Bottom Depth: 3207 m
Transmisso Cleaned: Y1 N

Time	UTC	Local
Start	22:19	1519
Bottom	22:51	
End	23:23	

Positional Information
Start
Lat: 48 ° 46.64 N
Lon: 128 ° 09.97 W

Bottom
Lat: 48 ° 46.69 N
Lon: 128 ° 09.98 W

End
Lat: 48 ° 46.82 N
Lon: 128 ° 10.25 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08

Station: P8

Event #: 30

Ship: Tully

UTC Date (dd mmm yyyy): 20 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut Fr	Nut C	Chl	HPLC								
				✓		MG	1							UBC gases	UVic			
1		194	2000	✓	2000	x	x x	x	x					x x				
2		195	1500	✓	1500	x	x	x	x					x x				
3		196	1250	✓	1250	x	x	x x	x x					x x				
4		197	1000	✓	1000	x	x x	x	x					x x				
5		198	800	✓	800	x	x	x	x					x x				
6		199	600	✓	600	x x		x	x					x x				
7		200	400	✓	400	x		x	x					x x				
8		201	300	✓	301	x		x						x x				
9		202	250	✓	250	x		x							x			
10		203	200	✓	200	x		x						x x				
11		204	175	✓	175	x		x										
12		205	150	✓	151	x		x x						x x	x			
13		206	125	✓	125	x x		x										
14		207	100	✓	100	x		x		x				x x				
15		208	75	✓	74	x		x		x								
16		209	60	✓	60	x		x		x x	x x							
17		210	50	✓	50	x		x		x x	x x			x x	x			
18		211	40	✓	40	x		x		x x	x x							
19		212	30	✓	30	x		x		x x	x x							
20		213	25	✓	24.5	x		x		x				x x				
21		214	20	✓	20	x x		x		x					x			
22		215	15	✓	15	x		x		x x	x x							
23		216	10	✓	10	x		x		x					x			
24		217	5	✓		x	x	x		x x	x x			x x	x			

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

Bottom Depth: 3263 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	01:48	18:48
Bottom	02:24	
End	03:18	

Positional Information

Lat:	48 ° 48.94	N
Lon:	128 ° 39.96	W

Start

Lat:	48 ° 49.03	N
Lon:	128 ° 40.07	W

Bottom

Lat:	48 ° 49.06	N
Lon:	128 ° 40.16	W

End

Extra comments:
Will also have loops for Sal x1,
Nut x1, Chl x2, OxyLab x2,
OxyT x2 and gases

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P9

Event #:

31

Ship:

Tully

UTC Date (dd mmm yyyy):

20 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed Pressure	Nut-F	Sal	Chl	HPLC		U							
1		218	2005	/ 2005		x											
2		219	1500	/ 1499		x											
3		220	1000	/ 1000		x											
4		221	500	/ 500						x							
5		222	400	/ 400						x							
6		223	300	/ 300						x							
7		224	200	/ 200						x							
8		225	150	/ 150						x							
9		226	100	/ 100						x							
10		227	50	/ 50						x							
11		228	5	/ 5						x							
12		229	5	/ 5	x	x	xx	xx									
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Profile type:
ROS TRM X-Niskin other?

Watchkeeper(s): SM

Bottom Depth: 3412 m

Transmisso Cleaned: (Y) / N

	UTC	Local
Start	0654	2354
Bottom	0731	
End	0815	

Positional Information

Lat: 48 ° 51.250 N

Lon: 129 ° 9.930 W

Lat: 48 ° 51.312 N

Lon: 129 ° 10.315 W

Lat: 48 ° 51.450 N

Lon: 129 ° 10.480 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P10 Event #: 33 Ship: Tully UTC Date (dd mmm yyyy): 20 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure			Cs								
1		230	200	/ 200			x								
2		231	200	/			x								
3		232	200	/			x								
4		233	200	/			x								
5		234	200	/			x								
6		235	200	/			x								
7		236	150	/ 150			x								
8		237	150	/			x								
9		238	150	/			x								
10		239	150	/			x								
11		240	150	/			x								
12		241	150	/			x								
13		242	100	/ 103			x								
14		243	100	/			x								
15		244	100	/			x								
16		245	100	/			x								
17		246	100	/			x								
18		247	100	/			x								
19		248	50	/ 50			x								
20		249	50	/			x								
21		250	50	/			x								
22		251	50	/			x								
23		252	50	/			x								
24		253	50	/			x								

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

Bottom Depth: 3352 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1110	0410
Bottom	1115	
End	1123	

Positional Information

Lat:	48 ° 53.590	N
Lon:	129 ° 39.810	W

Start

Lat:	48 ° 53.600	N
Lon:	129 ° 39.870	W

Bottom

Lat:	48 ° 53.640	N
Lon:	129 ° 39.960	W

End

Extra comments:
Cesium 200m cast

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P10 Event #: 34 Ship: Tully UTC Date (dd mmm yyyy): 20 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target	Confirmed	Nut-F	Sal	Chl	HPLC	Gases	Cs					
			Pressure	✓ Pressure					UBC						
1		254	500	✓	500					x					
2		255	500	✓						x					
3		256	500	✓						x					
4		257	500	✓						x					
5		258	500	✓						x					
6		259	500	✓						x					
7		260	400	✓	399					x					
8		261	400	✓						x					
9		262	400	✓						x					
10		263	400	✓						x					
11		264	400	✓						x					
12		265	400	✓						x					
13		266	300	✓	300					x					
14		267	300	✓						x					
15		268	300	✓						x					
16		269	300	✓						x					
17		270	300	✓						x					
18		271	300	✓						x					
19		272	5	✓	5					x					
20		273	5	✓						x					
21		274	5	✓						x					
22		275	5	✓						x					
23		276	5	✓						x					
24		277	5	✓		x	x	xx	xx	xx	x				

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

Bottom Depth: 3352 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1149	0449
Bottom	1226	
End	1307	

Positional Information

Lat:	48 ° 53.740	N
Lon:	129 ° 40.090	W

Start

Lat:	48 ° 53.740	N
Lon:	129 ° 40.090	W

Bottom

Lat:	48 ° 53.740	N
Lon:	129 ° 40.090	W

End

Lat:	48 ° 53.740	N
Lon:	129 ° 40.090	W

Extra comments:
Cesium + IOS cast

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P11

Event #: 35/36

Ship: Tully

UTC Date (dd mmm yyyy): 20 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Nut-F	Sal	Chl	HPLC		U					
1		278	2005	/ 2005		x									event 35 ↓ 36 ↓
2		279	1500	/ 1500		x									
3		280	1000	/ 1000		x									
4		281	500	/ 500						x					
5		282	400	/ 400						x					
6		283	300	/ 300						x					
7		284	200	/ 200						x					
8		285	150	/ 150						x					
9		286	100	/ 100						x					
10		287	50	/ 50						x					
11		288	5	/ 5						x					
12		289	5	/ 5	x	x	xx	xx							
13															Fluoro ~4.6 @ 50m
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 2750 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1557	0857
Bottom	1633	
End	1724	

Positional Information

Lat:	48° 55.908	N
Lon:	130° 9.914	W

Start

Lat: 48° 56.059 N
Lon: 130° 9.976 W

Bottom

Lat: 48° 56.020 N
Lon: 130° 9.990 W

End

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P12

Event #: 37

Ship: Tully

UTC Date (dd mmm yyyy): 20 08 16

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed Pressure	DMS	DMSP	DMSP	Nut-Fr	Chl	HPLC	Phyto						
1		290	300	✓ 300	x			x									
2		291	200	✓ 200	x	x	x	x									
3		292	175	✓ 175	x	x	x	x									
4		293	100	✓ 100	x	x	x	xx	x								
5		294	75	✓ 75	x			x	x								
6		295	60	✓ 60				x	xx	xx							Fluo 1.73
7		296	50	✓ 50	x			x	xx	xx							Fluo 2.42
8		297	40	✓ 40	x			x	xx	xx							Fluo 0.43
9		298	30	✓ 30	x			x	xx	xx							Fluo 0.34
10		299	25	✓ 25	x			x	x								
11		300	20	✓ 20	xx	xx	xx	x	x								Fluo 0.28
12		301	15	✓ 15	x			x	xx	xx							
13		302	10	✓ 11	x			x	x								Fluo 0.24
14		303	5	✓ 5	x	x	x	x	xx	xx							
15		304	0	✓ 2.1	x	x	x	x	x								
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Watchkeeper(s): MG

Bottom Depth: 3223 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1956	
Bottom	2001	
End	2026	

Positional Information

Lat: 48 ° 58.28 N

Lon: 130 ° 39.86 W

Lat: 48 ° 58.29 N

Lon: 130 ° 39.88 W

Lat: 48 ° 58.32 N

Lon: 130 ° 40.01 W

Extra comments:

DMS cast

Will also have loops for Chl x2

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P12 Event #: 39 Ship: Tully UTC Date (dd mmm yyyy): 2020 AUG 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials							SS					Comments
			Target Pressure	Confirmed ✓ Pressure	OXY	Sal	Nut-F	Nut-C	DIC	pH		SAGs	DNA	PT/RT Gases			
					20/35	M6	52	52	20/10	60		UBC	UBC	UBC			
1		305	Bot-10	✓	3278	x		x	x	x		x	x	x x			
2		306	3000	✓	3000	x	x x	x	x	x x	x						
3		307	3000	✓	3000	x	x	x	x	x	x	x	x	x x			
4		308	2500	✓	2500	x x	x x	x	x	x	x x x						
5		309	2000	✓	2000	x	x	x	x	x	x	x	x	x x			
6		310	1500	✓	1500	x	x x	x	x	x	x	x	x	x x			
7		311	1250	✓	1250	x	x	x	x	x	x	x	x	x x			
8		312	1000	✓	1002	x	x x	x	x	x	x	x	x	x x			
9		313	800	✓	801	x x		x x	x x	x	x	x	x	x x			
10		314	600	✓	601	x		x	x	x	x	x	x	x x			
11		315	400	✓	400	x		x	x	x	x	x	x	x x			
12		316	300	✓	300	x		x		x	x	x	x	x x			
13		317	250	✓	250	x		x		x	x						
14		318	200	✓	201	x		x		x	x	x	x	x x			
15		319	175	✓	175	x x		x		x	x						
16		320	150	✓	150	x		x		x	x	x	x	x x			
17		321	125	✓	125	x		x		x	x x x						
18		322	100	✓	100	x		x		x	x	x	x	x x			
19		323	75	✓	75	x		x x		x	x						
20		324	50	✓	50	x		x		x	x	x	x	x x			
21		325	25	✓	25	x		x		x	x	x	x	x x			
22		326	10	✓	10	x		x		x	x	x	x				
23		327	5	✓	5	x x	x	x		x	x			x x			
24																	

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

Bottom Depth: 3236 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2105	1405
Bottom	2202	
End	2322	

Positional Information

Lat:	48 ° 58.49	N
Lon:	130 ° 39.83	W

Start

Bottom

End

Lat: 48 ° 58.89 N
Lon: 130 ° 40.21 W

Lat: 48 ° 58.57 N
Lon: 130 ° 40.11 W

Extra comments:
Deep cast
Will also have loops for Sal x1,
Nut x1, OxyLab x2, OxyT x2,
and gases

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P12 Event #: 41 Ship: Tully UTC Date (dd mmm yyyy): 21 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed Pressure	UBC												
1		328	2000	✓ 2000	x												
2		329	2000	✓ "													
3		330	2000	✓ "													
4		331	2000	✓ "													
5		332	1000	✓ 1000	x												
6		333	1000	✓ 999													
7		334	1000	✓ 999													
8		335	1000	✓ 1000													
9		336	500	✓ 501	x												Paused @ 680
10		337	500	✓ 501													
11		338	500	✓ 500													
12		339	500	✓ 501													
13		340	10	✓ 10	x												
14		341	10	✓ 10													
15		342	10	✓ 10													
16		343	10	✓ 10													
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 3234 m
Transmisso Cleaned: ☒ N

Time	UTC	Local
Start	0514	2214
Bottom	0548	
End	0629	

Positional Information

Lat:	48 ° 05.13	N
Lon:	130 ° 39.89	W

Start

Lat: 48 ° 58.21 N
Lon: 130 ° 39.97 W

Bottom

Lat: 48 ° 58.25 N
Lon: 130 ° 40.02 W

End

Extra comments:
Jade's cast

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08

Station: P12

Event #: 42

Ship: Tully

UTC Date (dd mmm yyyy): 21 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments		
			Target Pressure	Confirmed ✓ Pressure	17O	ONAr	Oxy	18O ind	NO3 ind	NH4 ind	CHL	Nut-Fr	NH4	Sal	C14		UVic	Phyto
1		344	O2 max	/ 57	xx		xx							x				
2		345	5 m	/ 4	xx	xx	xx		x								x x x	
3																		
4		346	250	/ 250												x		
5		347	150	/ 150												x		
6		348	50	/ 50												x		
7		349	20	/ 20												x		
8		350	10	/ 10												x		
9		351	5	/ 5												x		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17		352	100%	/ 2			xx	xxx	xxxxx		x	x						
18		353	100%	/ 2						xxxxx			xx					
19		354	55%	/ 4		xx	xx	xxx	x	x	x	x	xx	x				
20		355	30%	/ 10			xx	xxx	x	x	x	x	xxxx	x				
21		356	15%	/ 10			xx	xxx	x	x	x	x	xx	x				
22		357	1%	/ 56			xx	xxx	x	x	x	x	xx	x				
23		358	55%	/ 4											x			
24																		

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): <u>SA</u>

Bottom Depth:	<u>3235</u>	m
Transmisso Cleaned:	<u>(Y)</u>	N

Time	UTC	Local
Start	<u>0805</u>	
Bottom	<u>0810</u>	
End	<u>0832</u>	

Positional Information		
Lat:	<u>48 ° 58.270</u>	N
Lon:	<u>130 ° 39.870</u>	W

Start

Bottom

End

Lat:	<u>48 ° 58.260</u>	N
Lon:	<u>130 ° 39.970</u>	W

Lat:	<u>48 ° 58.330</u>	N
Lon:	<u>130 ° 39.990</u>	W

Extra comments:
Productivity cast
<u>4, 5, 1, 22, 6, 7, 21, 8/20,</u>
<u>9, 2/19/23, 17/18</u>

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P13

Event #:

44

Ship:

Tully

UTC Date (dd mmm yyyy):

20 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Nut-F	Sal	Chl	HPLC	Gases	U					
1		359	2005	/	2005		x								
2		360	1500	/	1500		x								
3		361	1000	/	1000		x								
4		362	500	/	500					x					
5		363	400	/	399					x					
6		364	300	/	300					x					
7		365	200	/	201					x					
8		366	150	/	150					x					
9		367	100	/	100					x					
10		368	50	/	50					x					
11		369	5	/	5					x					
12		370	5	/	7	x	x	xx	xx	xx					+ Samples for Robert HPLC ~ 0.5.
13		371	5												
14		372	5												
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Profile type:
ROS TRM X-Niskin other?

Watchkeeper(s): *SW*

Bottom Depth: *3032* m

Transmisso Cleaned: *(Y)* / N

	UTC	Local
Start	13:51	06:51
Bottom	1425	
End	1509	

Positional Information

Start Lat: *49* ° *2.530* N

Start Lon: *131* ° *40.020* W

Bottom Lat: *49* ° *2.680* N

Bottom Lon: *131* ° *40.080* W

End Lat: *49* ° *2.780* N

End Lon: *131* ° *39.960* W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P14 Event #: 45 Ship: Tully UTC Date (dd mmm yyyy): 21 AUG 2016

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials								Comments					
			Target Pressure	Confirmed	Pressure	Nut-F	Sal	Chl	HPLC	Gases	oxy								
				✓							UBC								
1		371	5	✓	5	x	x	xx	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: 3316 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2027	1327
Bottom	2102	
End	2134	

Positional Information
Start
Lat: 49 ° 07.45 N
Lon: 132 ° 39.87 W

Bottom
Lat: 49 ° 07.48 N
Lon: 132 ° 40.06 W

End
Lat: 49 ° 07.54 N
Lon: 132 ° 40.22 W

Extra comments:
HOOPS
SAL NUT 2CHL 20X4TR
20XLL

Cruise ID: 2016-08 Station: P15 Event #: 48 Ship: Tully UTC Date (dd mmm yyyy): 22 08 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials							Comments						
			Target Pressure	Confirmed ✓ Pressure	Nut-F	Sal	Chl	HPLC	Gases	UBC								
1		372	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: 3408 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0257	1957
Bottom	0330	
End	0407	

Positional Information

Start

Lat: 49 ° 11.99 N

Lon: 133 ° 40.01 W

Bottom

Lat: 49 ° 11.98 N

Lon: 133 ° 46.15 W

End

Lat: 49 ° 12.03 N

Lon: 133 ° 40.15 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P16 Event #: 50 Ship: Tully UTC Date (dd mmm yyyy): 22 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure			Cs								
1		373	500	✓ 500			x								← open spigot on recovery
2		374	500	✓			x								
3		375	500	✓			x								
4		376	500	✓			x								
5		377	500	✓			x								
6		378	500	✓			x								
7		379	400	✓ 400			x								
8		380	400	✓			x								
9		381	400	✓			x								
10		382	400	✓			x								
11		383	400	✓			x								
12		384	400	✓			x								
13		385	300	✓ 300			x								
14		386	300	✓			x								
15		387	300	✓			x								
16		388	300	✓			x								
17		389	300	✓			x								
18		390	300	✓			x								
19		391	200	✓ 200			x								
20		392	200	✓			x								
21		393	200	✓			x								
22		394	200	✓			x								
23		395	200	✓			x								
24		396	200	✓			x								

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

Bottom Depth: 3332 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>1009</u>	<u>0309</u>
Bottom	<u>1020</u>	
End	<u>1034</u>	

Positional Information
Start
Lat: 49 ° 16.950 N
Lon: 134 ° 39.970 W

Bottom
Lat: 49 ° 16.980 N
Lon: 134 ° 39.970 W

End
Lat: 49 ° 17.000 N
Lon: 134 ° 39.970 W

Extra comments:
Cesium 500m cast

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08

Station: P16

Event #: 51

Ship: Tully

UTC Date (dd mmm yyyy): 22 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments		
			Target Pressure	Confirmed ✓ Pressure	170	ONAr	Oxy	18O ind	NO3 ind	NH4 ind	CHL	Nut-Fr	NH4	Sal	Phyto		UVic	C14
1		397	O2 max	/ 41	xx		xx							x				
2		398	5 m	/ 5	xx	xx	xx		x						x x x			
3																		
4		399	250	/ 250												x		
5		400	150	/ 150												x		408
6		401	50	/ 50												x		Sal
7		402	20	/ 20												x		P16
8		403	10	/ 10												x		30%
9		404	5	/ 5												x		2016-08
10																		Bot 20
11																		408
12																		CHL
13																		P16
14																		30%
15																		2016-08
16																		Bot 20
17		405	100%	/ 1			xx	xxx	xxxxx		x	x						405
18		406	100%	/ 1						xxxxx			xx					CHL
19		407	55%	/ 5		xx	xx	xxx	x	x	x	x	xx	x				P16
20		408	30%	/ 11			xx	xxx	x	x	x	x	xxxx	x				100%
21		409	15%	/ 22			xx	xxx	x	x	x	x	xx	x				2016-08
22		410	1%	/ 50			xx	xxx	x	x	x	x	xx	x				Bot 17
23		411	55%	/ 5													x	
24				/ 56														

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

Bottom Depth: 3279 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1100	0400
Bottom	1105	
End	1128	

Positional Information

Lat:	49 ° 16.999	N
Lon:	134 ° 39.965	W

Start

Positional Information

Lat:	49 ° 17.010	N
Lon:	134 ° 39.960	W

Bottom

Positional Information

Lat:	49 ° 16.980	N
Lon:	134 ° 40.004	W

End

Extra comments: out-of-order!
Amanda, Theresa, Robert
4, 5, 6, 22, 1, 21, 7, 20, 8,
2/9/19/23, 17/18

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P16 Event #: 54 Ship: Tully UTC Date (dd mmm yyyy): 22 AUG 2016

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Gases	SAGs	DNA				Comments
			Target	Confirmed		OXY	Sal	Nut-F	Nut-C	DIC	pH											
			Pressure	✓	Pressure	58/55	RN	RN	RN	PP/MV	GC											
1		412	Bot-10	/	3685	x		x	x	x	x			xx	x	x						
2		413	3500	]	/	3500	x	xx	xx	xx	xx	x										
3		414	3500		/	3500	xx	x	x	x	x	x										
4		415	3000		/	2999	x	xx	x	x	x	x		xx	x	x						
5		416	2500	/	2499	x	x	x	x	x	xxx											
6		417	2000	/	1999	x	xx	x	x	x	x		xx	x	x							
7		418	1500	/	1500	x	x	x	x	x	x		xx	x	x							
8		419	1250	/	1250	x	xx	x	x	x	x		xx	x	x							
9		420	1000	/	1000	x	xx	x	x	x	x		xx	x	x							
10		421	800	/	800	xx		x	x	x	x		xx	x	x							
11		422	600	/	600	x		x	x	x	x		xx	x	x							
12		423	400	/	400	x		x	x	x	x		xx	x	x							
13		424	300	/	300	x		x		x	x		xx	x	x							
14		425	250	/	250	x		x		x	x											
15		426	200	/	201	x		x		x	x		xx	x	x							
16		427	175	/	174	x		x		x	xxx											
17		428	150	/	150	x		x		x	x		xx	x	x							
18		429	125	/	125	xx		xx		x	x											
19		430	100	/	100	x		x		x	x		xx	x	x							
20		431	75	/	75	x		x		x	x											
21		432	50	/	50	x		x		x	x		xx	x	x							
22		433	25	/	25	x		x		x	x		xx	x	x							
23		434	10	/	10	x		x		x	x			x	x							
24		435	5	/	5	xx	x	x		x	x		xx									

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

Watchkeeper(s): HA/SR

Bottom Depth: 3634 m

Transmissio Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1333	0633
Bottom	1441	
End	1608	

Positional Information

Lat: 49° 17.03 N

Lon: 134° 39.97 W

Lat: 49° 17.01 N

Lon: 134° 39.97 W

Lat: 49° 17.04 N

Lon: 134° 39.87 W

Extra comments:

Deep cast

Will also have loops for Sal x1, OxyLab x2, OxyT x2, Nut x1 and gases

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P16 Event #: 55 Ship: Tully UTC Date (dd mmm yyyy): 22 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure			Cs								
1		436	150	/	150			x							
2		437	150	/				x							
3		438	150	/				x							
4		439	150	/				x							
5		440	150	/				x							
6		441	150	/				x							
7		442	100	/	100			x							
8		443	100	/				x							
9		444	100	/				x							
10		445	100	/				x							
11		446	100	/				x							
12		447	100	/				x							
13		448	50	/	50			x							
14		449	50	/				x							
15		450	50	/				x							
16		451	50	/				x							
17		452	50	/				x							
18		453	50	/				x							
19		454	5	/	5			x							
20		455	5	/				x							
21		456	5	/				x							
22		457	5	/				x							
23		458	5	/				x							
24		459	5	/				x							

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

Bottom Depth: 3631 m
 Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	1711	
Bottom	1715	
End	1722	

Positional Information

Start	Lat: 49 ° 16.980 N
	Lon: 134 ° 39.560 W

Start

Bottom

Bottom	Lat: 49 ° 16.970 N
	Lon: 134 ° 39.540 W

End

End	Lat: 49 ° 16.960 N
	Lon: 134 ° 39.740 W

Extra comments:
 Cesium 150m cast

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P16 Event #: 56 Ship: Tully UTC Date (dd mmm yyyy): 22 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials							Comments									
			Target Pressure	Confirmed ✓ Pressure	DMS	DMSP t	DMSP d	Nut-Fr	Chl	HPLC											
1		460	300	300	x			x				Spigot open									
2		461	200	200	x	x	x	x													
3		462	175	175	x	x	x	x													
4		463	100	100	x	x	x	x	x												
5		464	75	75	x			x	x												
6		465	60	60				xx	xx	xx		Fluo ~1									
7		466	50	50	x			x	xx	xx		Fluo ~3 → 1L bottle									
8		467	40	40	x			x	xx	xx		Fluo ~.6									
9		468	30	30	x			x	xx	xx		Fluo ~.5									
10		469	25	25	x			x	x												
11		470	20	20	xx	xx	xx	x	x												
12		471	15	15	x			x	xx	xx		Fluo ~.4									
13		472	10	10	x			x	x			Fluo ~.4 } spigot open									
14		473	5	5	x	x	x	x	xx	xx											
15		474	0	2	x	x	x	x	x												
16																					
17																					
18																					
19																					
20																					
21																					
22																					
23																					
24																					

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

Bottom Depth: 3632 m
Transmisso Cleaned: (Y) 1 N

Time	UTC	Local
Start	1746	1046
Bottom	1752	
End		

Positional Information

Lat:	49 ° 16.950	N
Lon:	134 ° 40.050	W

Start

Lat: 49 ° 16.950 N
Lon: 134 ° 40.100 W

Bottom

Lat: 49 ° 17.000 N
Lon: 134 ° 40.130 W

End

Extra comments:
DMS cast
Will also have loops for Chl x2

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08

Station: P17

Event #: 58

Ship: Tully

UTC Date (dd mmm yyyy): 22 08 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Nut-F	Sal	Chl	HPLC	Gases	U		DIC	pH	Oxy				
					MR	MR	TV	RF	RF	SZ		MRHV	GC	MR/AT				
1		475	2005	✓	2003		x											
2		476	1500	✓	1501		x											
3		477	1000 x	✓	1000		x					xx	xxx	xx				
4		478	500	✓	501					x								
5		479	400	✓	400					x								
6		480	300	✓	300					x								
7		481	200	✓	200					x								
8		482	150	✓	151					x								
9		483	100	✓	100					x		xx	xxx	xx				
10		484	50		50					x								
11		485	5	✓	5					x								
12		486	5	✓	5	x	x	xx	xx	xx								
13		487	1000 x	✓	1000							xx	xxx	xx				
14		488	100		100							xx	xxx	xx				
15																		
16																		
17																		
18																		
19		489	1000 x	✓	1001							xx	xxx	xx				
20		490	1000 x	✓	1001							xx	xxx	xx				
21		491	100	✓	100							xx	xxx	xx				
22		492	100	✓	100							xx	xxx	xx				
23																		
24																		

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

Bottom Depth: 3664 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	22 26	15 26
Bottom	22 59	
End	23 46	

Positional Information

Lat:	49 ° 21.05	N
Lon:	135 ° 39.96	W

Start

Bottom

End

Lat: 49 ° 21.04 N
Lon: 135 ° 39.98 W

Lat: 49 ° 21.00 N
Lon: 135 ° 40.07 W

Extra comments:
OUT-OF-ORDER
1; 2; 3; 13; 19; 20; 4; 5; 6; 7; 8;
9; 14; 21; 22; 10; 11; 12
Niskins comp: spring VS tubes

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P18 Event #: 59 Ship: Tully UTC Date (dd mmm yyyy): 23 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	Nut-F	Sal	Chl	HPLC	Gases	UBC								
1		493	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: 3834 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0449	2149
Bottom	0521	
End	0554	

Positional Information

Start	Lat: 49 ° 26.00 N
	Lon: 136 ° 39.79 W
Bottom	Lat: 49 ° 25.98 N
	Lon: 136 ° 39.83 W
End	Lat: 49 ° 25.97 N
	Lon: 136 ° 39.88 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P19 Event #: 60 Ship: Tully UTC Date (dd mmm yyyy): 23 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Nut-F	Sal	Chl	HPLC	Gases	U					
1		494	2005	✓ 2005		x									
2		495	1500	✓ 1500		x									
3		496	1000	✓ 1000		x									
4		497	500	✓ 500						x					
5		498	400	✓ 400						x					
6		499	300	✓ 300						x					
7		500	200	✓ 200						x					
8		501	150	✓ 150						x					
9		502	100	✓ 100						x					
10		503	50	✓ 50						x					
11		504	5	✓ 4						x					
12		505	5	✓ 4	x	x	xx	xx	xx						
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 3928 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1042	0342
Bottom	1122	
End	1205	

Positional Information
Start
Lat: 49 ° 29.950 N
Lon: 137 ° 39.970 W

Bottom
Lat: 49 ° 29.980 N
Lon: 137 ° 39.960 W

End
Lat: 49 ° 30.000 N
Lon: 137 ° 39.980 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P20 Event #: 63 Ship: Tully UTC Date (dd mmm yyyy): 23 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials								Comments				
			Target Pressure	Confirmed Pressure	DMS	DMSP	DMSP	Nut-Fr	Chl	HPLC							
1		506	300	✓ 300	x			x									
2		507	200	✓ 200	x	x	x	x									
3		508	175	✓ 175	x	x	x	x									
4		509	100	✓ 100	x	x	x	x	x								
5		510	75	✓ 75	x			x	x								
6		511	60	✓ 60				x	xx	xx			Fluo 1.80				
7		512	50	✓ 49	x			x	xx	xx			Fluo 1.65				
8		513	40	✓ 40	x			x	xx	xx			Fluo 1.00				
9		514	30	✓ 30	x			x	xx	xx			Fluo 0.35				
10		515	25	✓ 25	x			x	x								
11		516	20	✓ 20	xx	xx	xx	x	x								
12		517	15	✓ 14	x			x	xx	xx			Fluo 0.30				
13		518	10	✓ 10	x			xx	x								
14		519	5	✓ 4	x	x	x	x	xx	xx			Fluo 0.25				
15		520	0	✓ 2	x	x	x	x	x								
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 3964 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1759	1059
Bottom	1806	
End	1826	

Positional Information

Lat:	49 ° 34.040	N
Lon:	138 ° 39.990	W

Start

Bottom

Lat: 49 ° 34.010 N
Lon: 138 ° 39.980 W

End

Lat: 49 ° 34.020 N
Lon: 138 ° 39.990 W

Extra comments:
DMS cast
Will also have loops for Chl x2

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P20 Event #: 65 Ship: Tully UTC Date (dd mmm yyyy): 23 08 16

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	OXY	Sal	Nut-F	Nut-C	DIC	pH				Gases	SAGs	DNA		
1		521	Bot-10	✓ 4023	x		x	x	x	x				xx	x	x		
2		522	3500	✓ 3500	x	xx	x	x	xx	x								
3		523	3500	✓ 3500	x	x	x	x	x	xxx								
4		524	3000	✓ 3000	x	xx	x	x	x	x				xx	x	x		
5		525	2500	✓ 2500	xx	x	x	x	x	x								
6		526	2000	✓ 2000	x	xx	x	x	x	x				xx	x	x		
7		527	1500	✓ 1500	x	x	x	x	x	x				xx	x	x		
8		528	1250	✓ 1250	x	xx	xx	xx	x	x				xx	x	x		
9		529	1000	✓ 1000	x	xx	x	x	x	x				xx	x	x		
10		530	800	✓ 800	x	x	x	x	x	x				xx	x	x		
11		531	600	✓ 599	x	x	x	x	x	x				xx	x	x		
12		532	400	✓ 400	xx	x	x	x	x	x				xx	x	x		
13		533	300	✓ 300	x	x	x		x	x				xx	x	x		
14		534	250	✓ 250	x	x	xx		x	x								
15		535	200	✓ 200	x	x	x		x	x				xx	x	x		
16		536	175	✓ 175	x	x	x		x	x								
17		537	150	✓ 150	x	x	x		x	x				xx	x	x		
18		538	125	✓ 125	xx	x	x		x	x								
19		539	100	✓ 101	x	x	x		x	x				xx	x	x		
20		540	75	✓ 75	x	x	x		x	xxx								
21		541	50	✓ 51	x	x	x		x	x				xx	x	x		
22		542	25	✓ 25	x	x	x		x	x				xx	x	x		
23		543	10	✓ 10	x	x	x		x	x					x	x		
24		544	5	✓ 5	xx	x	x		x	x				xx				

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

Bottom Depth: 3965 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1949	1247
Bottom	2059	
End	2231	

Positional Information
Start
Lat: 49 ° 34.10 N
Lon: 138 ° 39.94 W

Bottom
Lat: 49 ° 34.06 N
Lon: 138 ° 39.93 W

End
Lat: 49 ° 33.96 N
Lon: 138 ° 39.87 W

Extra comments:
Deep cast
Will also have loops for Sal x1,
OxyLab x2, OxyT x2, Nut x1
and gases DONE ON DMS

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P20 Event #: 207112 Ship: Tully UTC Date (dd mmm yyyy): 24 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed ✓ Pressure	17O	ONAr	Oxy	18O inc	NO3 inc	NH4 inc	CHL	Nut-Fr	NH4	Sal	Phyto	UVic		C14
1		545	O2 max	/ 34	xx		xx							x				
2		546	5 m	/ 4	xx	xx	xx		x						x x x			
3																		
4		547	250	/ 250												x		
5		548	150	/ 150												x		
6		549	50	/ 50												x		
7		550	20	/ 20												x		
8		551	10	/ 10												x		
9		552	5	/ 5												x		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17		553	100%	/ 1			xx	xxx	xxxxx		no	x						no water left
18		554	100%	/ 1						xxxxx			xx					
19		555	55%	/ 4		xx	xx	xxx	x	x	x	x	xx	x				
20		556	30%	/ 10			xx	xxx	x	x	x	x	xxxx	x				
21		557	15%	/ 10			xx	xxx	x	x	x	x	xx	x				
22		558	1%	/ 54			xx	xxx	x	x	x	x	xx	x				
23		559	55%	/ 4													x	
24																		

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

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

Time	UTC	Local
Start	0851	0151
Bottom	0857	
End	0914	

Positional Information

Lat:	49 ° 34.010	N
Lon:	138 ° 39.690	W

Start

Bottom

Lat:	49 ° 34.024	N
Lon:	138 ° 39.674	W

Bottom

End

Lat:	49 ° 34.040	N
Lon:	138 ° 39.690	W

End

Extra comments: out-of-order!
Amanda, Theresa, Robert
4, 5, 22, 6, 1, 7, 21, 8/20,
9, 2/19/23, 17/18

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P21

Event #:

74

Ship:

Tully

UTC Date (dd mmm yyyy):

24 Aug 2016

Cruise ID:			2016-08		Station:		P21		Event #:		Camp:		Comments					
Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													
			Target Pressure	Confirmed Pressure														
				✓				Cs										
1		560	200	/	200			x										
2		561	200	/				x										
3		562	200	/				x										
4		563	200	/				x										
5		564	200	/				x										
6		565	200	/				x										
7		566	150	/	150			x										
8		567	150	/				x										
9		568	150	/				x										
10		569	150	/				x										
11		570	150	/				x										
12		571	150	/				x										
13		572	100	/	100			x										
14		573	100	/				x										
15		574	100	/				x										
16		575	100	/				x										
17		576	100	/				x										
18		577	100	/				x										
19		578	50	/	50			x										
20		579	50	/				x										
21		580	50	/				x										
22		581	50	/				x										
23		582	50	/				x										
24		583	50	/				x										

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

Bottom Depth: 3955 m
 Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1345	0645
Bottom	1345	
End	1359	

Positional Information

Start
 Lat: 49 ° 38.030 N
 Lon: 135 ° 40.060 W

Bottom
 Lat: 49 ° 38.060 N
 Lon: 135 ° 40.050 W

End
 Lat: 49 ° 38.110 N
 Lon: 139 ° 39.560 W

Extra comments:
 Cesium 200m cast

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P21

Event #:

75

Ship:

Tully

UTC Date (dd mmm yyyy): 24 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Nut-F	Sal	Chl	HPLC	Gases	Cs					
1		584	500	/	500					x					
2		585	500	/						x					
3		586	500	/						x					
4		587	500	/						x					
5		588	500	/						x					
6		589	500	/						x					
7		590	400	/	400					x					
8		591	400	/						x					
9		592	400	/						x					
10		593	400	/						x					
11		594	400	/						x					
12		595	400	/						x					
13		596	300	/	300					x					
14		597	300	/						x					
15		598	300	/						x					
16		599	300	/						x					
17		600	300	/						x					
18		601	300	/						x					
19		602	5	/	5					x					
20		603	5	/						x					
21		604	5	/						x					
22		605	5	/						x					
23		606	5	/						x					
24		607	5	/		x	x	xx	xx	xx	x				

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

Bottom Depth: 3959 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1419	0719
Bottom	1454	
End	1531	

Positional Information
Start
Lat: 49 ° 38.000 N
Lon: 139 ° 40.090 W

Bottom
Lat: 49 ° 38.020 N
Lon: 139 ° 40.060 W

End
Lat: 49 ° 38.020 N
Lon: 139 ° 40.030 W

Extra comments:
Cesium + IOS cast

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08

Station: P22

Event #: 76

Ship: Tully

UTC Date (dd mmm yyyy): 24 08 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Nut-F	Sal	Chl	HPLC	Gases	DIC	pH	ORP	DO	Temp	
1		608	2000	✓	2000		x			x x x	x x x				leaky spigot
2		609	2000	✓			x			x x x	x x x				
3		610	2000	✓			x			x x x	x x x				
4		611	2000	✓			x			x x x	x x x				
5		612	2000	✓			x			x x x	x x x				
6		613	2000	✓			x								
7		614	2000	✓			x								
8		615	2000	✓			x								
9		616	2000	✓			x								
10		617	2000	✓			x								
11		618	2000	✓			x								
12		619	2000	✓			x								
13		620	2000	✓	2001		x								
14		621	2000	✓	2001		x								
15		622	2000	✓	2000		x								
16		623	2000	✓			x								
17		624	2000	✓			x								
18		625	2000	✓			x								
19		626	2000	✓			x								
20		627	2000	✓			x								
21		628	2000	✓			x								
22		629	2000	✓			x								
23		630	2000	✓			x								
24		631	5	✓	5	x	x	x x	x x						not enough H2O for sal.

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

Bottom Depth:	3902	m
Transmisso Cleaned:	(Y) / N	

Time	UTC	Local
Start	1954	1254
Bottom	2028	
End	2105	

Positional Information
Lat: 49 ° 41.98 N
Lon: 140 ° 39.96 W

Start

Bottom

Lat: 49 ° 41.99 N
Lon: 140 ° 40.00 W

End

Lat: 49 ° 41.97 N
Lon: 140 ° 39.95 W

Extra comments:
Calibration cast
Plus LOOPS!! (all but gases)

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P23 Event #: 78 Ship: Tully UTC Date (dd mmm yyyy): 25 08 16

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Nut-F	Sal	Chl	HPLC	Gases	U					
1		632	2005	✓ 2006		x									
2		633	1500	✓ 1500		x									
3		634	1000	✓ 1000		x									
4		635	500	✓ 500						x x x x					
5		636	400	✓ 400						x x x x					
6		637	300	✓ 300						x x x x					
7		638	200	✓ 200						x x x x					
8		639	150	✓ 150						x x x x					
9		640	100	✓ 100						x x x x					
10		641	50	✓ 50						x x x x					
11		642	5	✓ 5						x x x x					
12		643	5	✓ 5	x	x	x x	x x	x x						
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Profile type: ☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): MGBottom Depth: 4053 m
Transmissio Cleaned: ☒ Y / ☐ N

	UTC	Local
Start	0131	1831
Bottom	0207	
End	0252	

Positional Information
Start
Lat: 49 ° 46.00 N
Lon: 141 ° 39.93 WBottom
Lat: 49 ° 45.99 N
Lon: 141 ° 39.88 WEnd
Lat: 49 ° 45.98 N
Lon: 141 ° 39.94 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P24

Event #: 79

Ship: Tully

UTC Date (dd mmm yyyy): 25 Aug 2016

Niskin # Firing # Sample #

Rosette Operation
Target Confirmed
Pressure √ Pressure

Samples Taken / Sampler's Initials

Nut-F Sal Chl HPLC Gases DO2 UBC

Comments

1		644	5	15	x	x	xx	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): sn

Bottom Depth: 3986 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0718	0018
Bottom	0753	
End	0923	

Positional Information
Start
Lat: 49 ° 50.260 N
Lon: 142 ° 39.950 W

Bottom
Lat: 49 ° 50.210 N
Lon: 142 ° 40.000 W

End
Lat: 49 ° 50.190 N
Lon: 142 ° 39.900 W

Extra comments:
Plus all Loops

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P25 Event #: 81 Ship: Tully UTC Date (dd mmm yyyy): 25 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Nut-F	Sal	Chl	HPLC	Gases	U							
1		645	2005	✓ 2005		x											
2		646	1500	✓ 1500		x											
3		647	1000	✓ 1000		x											
4		648	500	✓ 500						x							
5		649	400	✓ 400						x							
6		650	300	✓ 300						x							
7		651	200	✓ 200						x							
8		652	150	✓ 150						x							
9		653	100	✓ 100						x							
10		654	50	✓ 50						x							
11		655	5	✓ 5						x							
12		656	5	✓ 5	x	x	xx	xx	xx								
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 4144 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1224	0524
Bottom	1300	
End	1347	

Positional Information
Start
Lat: 50 ° 0.040 N
Lon: 143 ° 36.360 W

Bottom
Lat: 50 ° 0.020 N
Lon: 143 ° 36.310 W

End
Lat: 50 ° 0.030 N
Lon: 143 ° 36.320 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P35 Event #: 83 Ship: Tully UTC Date (dd mmm yyyy): 25 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments		
			Target	Confirmed	Nut-F	Sal	Chl	HPLC									
			Pressure	✓ Pressure													
1		657	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): SM

Bottom Depth: 4151 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	1645	
Bottom	1724	
End	1756	

Positional Information

Start	Lat: <u>50 ° 0.020</u> N
	Lon: <u>144 ° 18.200</u> W
	▼
Bottom	Lat: <u>50 ° 0.000</u> N
	Lon: <u>144 ° 18.110</u> W
	▼
End	Lat: <u>50 ° 0.020</u> N
	Lon: <u>144 ° 18.180</u> W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P26

Event #:

84

Ship:

Tully

UTC Date (dd mmm yyyy): 25 08 2016

Cruise ID: 2016-08			Station: P26		Event #:										Comments		
Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												
			Target Pressure	Confirmed Pressure	Cs												
				✓				RICK + SARA T									
1		658	150	✓	149			x									
2		659	150	✓				x									
3		660	150	✓				x									
4		661	150	✓				x									
5		662	150	✓				x									
6		663	150	✓				x									
7		664	100	✓	100			x									
8		665	100	✓				x									
9		666	100	✓				x									
10		667	100	✓				x									
11		668	100	✓				x									
12		669	100	✓				x									
13		670	50	✓	50			x									
14		671	50	✓				x									
15		672	50	✓				x									
16		673	50	✓				x									
17		674	50	✓				x									
18		675	50	✓				x									
19		676	5	✓	5			x									
		677	5	✓				x									
		678	5	✓				x									
		679	5	✓				x									
		680	5	✓				x									
		681	5	✓				x									

http://www.na

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

Bottom Depth: 4252 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2053	1353
Bottom	2056	
End	2104	

Positional Information

Start
Lat: 50 ° 06.11 N
Lon: 144 ° 59.91 W

Bottom
Lat: 50 ° 06.10 N
Lon: 144 ° 59.89 W

End
Lat: 50 ° 0.08 N
Lon: 144 ° 59.88 W

Extra comments:
Cesium 150m cast

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P26

Event #:

85

Ship:

Tully

UTC Date (dd mmm yyyy): 25 08 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	DMS	DMSP	DMSP	Nut-Fr	Chl	HPLC	Phyto	U			
					MR	t MA	d MA	SARA O	GC	AT	MR	SARA Z			
1	67	682	300 x	✓ 500	x			x				X			
2		683	200	✓ 200	x	x	x	x							
3		684	175	✓ 175	x	x	x	xx							
4		685	100	✓ 100	x	x	x	x	x						
5		686	75	✓ 75	x			x	x						Fluo 1.16
6		687	60	✓ 60				x	xx	xx					Fluo 1.28
7		688	50	✓ 50	x			x	xx	xx					Fluo 1.18
8		689	40	✓ 40	x			x	xx	xx					Fluo 0.82
9		690	30	✓ 30	x			x	xx	xx					
10		691	25	✓ 25	x			x	x						
11		692	20	✓ 20	xx	xx	xx	x	x						Fluo 0.67
12		693	15	✓ 15	x			x	xx	xx					
13		694	10	✓ 10	x			x	x						Fluo 0.42
14		695	5	✓ 5	x	x	x	x	xx	xx	xxx				
15		696	0	✓ 0	x	x	x	x	x						
16		697	300	✓ 300	x			x				x			
17		698	400	✓ 402								x			
18		699	300	✓ 300								x			
19		700	200	✓ 200								x			
20		701	150	✓ 150								x			
21		702	100	✓ 100								x			
22		703	50	✓ 50								x			
23		704	5	✓ 5								x			
24		682	300 x	✓ 300	x			x							

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

Bottom Depth: 4252 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2130	1430
Bottom	2138	
End	2207	

Positional Information

Lat:	50 ° 00.04	N
Lon:	144 ° 59.96	W

Start

Lat:	50 ° 00.06	N
Lon:	144 ° 59.99	W

Bottom

Lat:	49 ° 59.94	N
Lon:	144 ° 59.99	W

End

Extra comments:
DMS + SaraZ - OUT-OF-ORDER
16; 17; 18; 1; 2; 19; 3; 20; 21; 4;
5; 6; 7; 22; 8-14; 23; 15
Will also have loops for Chl x2

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

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P26

Event #:

86 / 87

Ship:

Tully

UTC Date (dd mmm yyyy): 25 08 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target	Confirmed	OXY	Sal	Nut-F	Nut-C	DIC	pH	ALK		Gases	SAGs	DNA			
			Pressure	✓ Pressure														
1		705	Bot-10	✓	4318	x		xx	x	x	x		xx	x	x			
2		706	4000	✓	4000	x	xx	xx	x	xx	x		xx	x	x			
3		707	3500	✓	3500	xx	x	xx	x	x	x							
4		708	3000	✓	3000	x	xx	xx	x	x	x		xx	x	x			
5		709	2500	✓	2500	x	x	xx	x	x	xxx	x						
6		710	2000	✓	2000	x	xx	xx	x	x	x		xx	x	x			
7		711	1500	✓	1500	x	x	xx	x	x	x		xx	x	x			
8		712	1250	✓	1251	x	xx	xxxx	xx	x	x		xx	x	x			ON THE FLY
9		713	1000	✓	999	x	xx	xx	x	x	x		xx	x	x			
10		714	800	✓	800	xx		xx	x	x	x		xx	x	x			START NEW FILE 87
11		715	600	✓	600	x		xx	x	x	x		xx	x	x			
12		716	400	✓	400	x		xx	x	x	x		xx	x	x			
13		717	300	✓	300	x		xx		x	x		xx	x	x			
14		718	250	✓	250	x		xxxx		x	x	x						
15		719	200	✓	200	x		xx		x	x	x	xx	x	x			
16		720	175	✓	173	xx		xx		x	x	x						
17		721	150	✓	150	x		xx		x	x	x	xx	x	x			
18		722	125	✓	125	x		xx		x	x	x						
19		723	100	✓	100	x		xx		x	x	x	xx	x	x			
20		724	75	✓	74	x		xx		x	x	x						
21		725	50	✓	49	xx		xx		x	x	x	xx	x	x			
22		726	25	✓	24	x		xx		x	x	x	xx	x	x			
23		727	10	✓	10	x		xx		x	xxx	x		x	x			
24		728	5	✓	5	x		xx		x	x	x	xx					

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

Bottom Depth:	4252	m
Transmisso Cleaned:	Y / N	

Time	UTC	Local
Start	2252	1552
Bottom	0003	
End	0551	

Start	1900 LOCAL	
Positional Information		
Lat:	49 ° 59.98	N
Lon:	144 ° 59.97	W

Bottom		
Lat:	49 ° 59.91	N
Lon:	145 ° 00.04	W

End		
Lat:	49 ° 59.95	N
Lon:	144 ° 59.98	W

Extra comments:	PAR OFF 2 BUCKETS	
Deep cast		
Will also have loops for Sal x1,		
OxyLab x2, OxyT x2, Nut x1		
and gases		

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P26

Event #:

88

Ship:

Tully

UTC Date (dd mmm yyyy):

26 08 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Gases				SAGs				DNA				Comments			
			Target Pressure	Confirmed Pressure	OXY	Sal	Nut-F	Nut-C	DIC	pH	ALK																			
1		705	Bot-10	✓	4317	x		xx	x	x	x			xx	x	x														
2		706	4000	✓	4000	x	xx	xx	x	xx	x			xx	x	x														
3		707	3500	✓	3499	xx	x	xx	x	x	x																			
4		708	3000	✓	3000	x	xx	xx	x	x	x			xx	x	x														
5		709	2500	✓	2500	x	x	xx	x	x	xxx	x																		
6		710	2000	✓	2000	x	xx	xx	x	x	x			xx	x	x														
7		711	1500	✓	1500	x	x	xx	x	x	x			xx	x	x														
8		712	1250	✓	1250	x	xx	xxxx	xx	x	x			xx	x	x														
9		713	1000	✓	1000	x	xx	xx	x	x	x			xx	x	x														
10		714	800	✓	800	xx		xx	x	x	x			xx	x	x														
11		715	600	✓	600	x		xx	x	x	x			xx	x	x														
12		716	400	✓	400	x		xx	x	x	x			xx	x	x														
13		717	300	✓	300	x		xx		x	x			xx	x	x														
14		718	250	✓	250	x		xxxx		x	x																			
15		719	200	✓	200	x		xx		x	x			xx	x	x														
16		720	175	✓	175	xx		xx		x	x																			
17		721	150	✓	150	x		xx		x	x			xx	x	x														
18		722	125	✓	125	x		xx		x	x																			
19		723	100	✓	100	x		xx		x	x			xx	x	x														
20		724	75	✓	75	x		xx		x	x																			
21		725	50	✓	50	xx		xx		x	x			xx	x	x														
22		726	25	✓	25	x		xx		x	x			xx	x	x														
23		727	10	✓	10	x		xx		x	xxx	x																		
24		728	5	✓	5	x		xx		x	x	x		xx																

Profile type:

ROS TRM X-Niskin other?

Watchkeeper(s):

MG/SR

Bottom Depth:

4252 m

Transmissio Cleaned:

Y / N

Time

UTC

Local

Start

0650

Bottom

0806

End

0948

Positional Information

Lat:

49 ° 59.960

N

Lon:

144 ° 59.990

W

Lat:

50 ° 0.040

N

Lon:

145 ° 0.010

W

Lat:

50 ° 0.010

N

Lon:

144 ° 59.990

W

Extra comments:

Deep cast

Will also have loops for Sal x1,

OxyLab x2, OxyT x2, Nut x1

and gases

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P26

Event #: 90

Ship:

Tully

UTC Date (dd mmm yyyy): 26 Aug 2016

Cruise ID: 2010-06			Station: 120		Samples Taken / Sampler's Initials												Comments	
Niskin #	Firing #	Sample #	Rosette Operation		170	ONAr	Oxy	180 ind	NO3 ind	NH4 ind	CHL	Nut-Fr	NH4	Sal	C14	UVic	bugs	
			Target Pressure	Confirmed Pressure														
1		769	O2 max	/ 40	xx		xx							x				
2		770	5 m	/ 45	xx	xx	xx		x									
3																		
4		771	250	/ 250												x		
5		772	150	/ 150												x		
6		773	50	/ 50												x		
7		774	20	/ 20												x		
8		775	10	/ 10												x		
9		776	5	/ 5												x		
10																		
11		777	100	/ 100													x	
12		778	50	/ 50													x	
13		779	5	/ 5													x	
14																		
15																		
16																		
17		780	100%	/ 1			xx	xxx	xxxxx		x	x						
18		781	100%	/ 1						xxxxx			xx					
19		782	55%	/ 5		xx	xx	xxx	x	x	x	x	xx	x				
20		783	30%	/ 14			xx	xxx	x	x	x	x	xxxx	x				
21		784	15%	/ 24			xx	xxx	x	x	x	x	xx	x				
22		785	1%	/ 61			xx	xxx	x	x	x	x	xx	x				
23		786	55%	/ 5											x			
24																		

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

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

Time	UTC	Local
Start	1205	0505
Bottom	1210	
End	1234	

Positional Information		
Start	Lat: 49 ° 59.970	N
	Lon: 145 ° 0.000	W

Start

Bottom

End

Bottom	Lat: 49 ° 59.990	N
	Lon: 144 ° 59.980	W

End	Lat: 50 ° 0.000	N
	Lon: 144 ° 59.930	W

Extra comments:
Productivity cast
OUT-OF-ORDER
4, 5, 11, 22, 6/12, 1, 21, 7,
20, 8, 13/23, 17/18

Water Properties Group

Sampling Log

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

Cruise ID:

2016-08

Station:

P26

Event #:

91

Ship:

Tully

UTC Date (dd mmm yyyy):

26 Aug 2016

Cruise ID: 2016-08			Station: P26		Event #: 1		Smp. 1		Val. 1		Comments								
Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials														
			Target Pressure	Confirmed Pressure	Cesium														
1		729	500	/	500	x													
2		730	500	/		x													
3		731	500	/		x													
4		732	500	/		x													
5		733	500	/		x													
6		734	500	/		x													
7		735	400	/	400	x													
8		736	400	/		x													
9		737	400	/		x													
10		738	400	/		x													
11		739	400	/		x													
12		740	400	/		x													
13		741	300	/	300	x													
14		742	300	/		x													
15		743	300	/		x													
16		744	300	/		x													
17		745	300	/		x													
18		746	300	/		x													
19		747	200	/	200	x													
20		748	200	/		x													
21		749	200	/		x													
22		750	200	/		x													
23		751	200	/		x													
24		752	200	/		x													

Before each cast, do not use Ammonia products

http://www.

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

Bottom Depth: 4251 m
Transmisso Cleaned: Y N

Time	UTC	Local
Start	1356	0656
Bottom	1406	
End	1419	

Positional Information

Lat:	49 ° 59.960	N
Lon:	145 ° 0.120	W

Bottom

Lat:	49 ° 59.950	N
Lon:	145 ° 0.070	W

End

Lat:	50 ° 0.010	N
Lon:	145 ° 0.080	W

Extra comments:
Deep Cesium cast

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: P26 Event #: 94 Ship: Tully UTC Date (dd mmm yyyy): 27 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	UBC										
1		753	2000	✓ 2000	x										
2		754	2000	✓ ↓											
3		755	2000	✓ ↓											
4		756	2000	✓ ↓											
5		757	1000	✓ 1000	x										
6		758	1000	✓ ↓											
7		759	1000	✓ ↓											
8		760	1000	✓ ↓											
9		761	500	✓ 500	x										
10		762	500	✓ ↓											
11		763	500	✓ ↓											
12		764	500	✓ ↓											
13		765	10	✓ 10	x										
14		766	10	✓ ↓											
15		767	10	✓ ↓											
16		768	10	✓ ↓											
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 4252 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0212	1712
Bottom	0244	
End	0319	

Positional Information
Start
Lat: 49 ° 59.93 N
Lon: 145 ° 00.01 W

Bottom
Lat: 49 ° 59.92 N
Lon: 145 ° 00.00 W

End
Lat: 49 ° 59.93 N
Lon: 145 ° 00.06 W

Extra comments:
Jade's cast

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08 Station: PA-010 Event #: 96 Ship: Tully UTC Date (dd mmm yyyy): 27 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	A7	Oxy UVic	ONAr UVic								
1		787	10	✓	10		xx	xx							
2		788	7	✓	7.6		xx	xx							
3		789	3	✓	3		xx	xx							
4				✓	500										
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: 4230 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	0544	2244
Bottom	0553	
End	0607	

Positional Information
Start
Lat: 50 ° 01.47 N
Lon: 144 ° 52.64 W

Bottom
Lat: 50 ° 01.47 N
Lon: 144 ° 52.66 W

End
Lat: 50 ° 01.47 N
Lon: 144 ° 52.72 W

Extra comments:
Mooring calibration
CTD to 500 dbar

Water Properties Group

Sampling Log

Cruise ID: 2016-08 Station: P8

Event 103

Tully

UTC Date-(dd mmm yyyy): 29 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials					UVic		Comments				
			Target Pressure	Confirmed Pressure	Oxy	Sal				OXY						
1		790	1500	/ 1500	x	x x				x x		2 bottles @ 1250?				
2		791	1250	/ 1250	x	x				x						
3		792	1250	/ 1250	x	x x				x						
4		793	1000	/ 1000	x	x x				x						
5		794	800	/ 800	x	x				x						
6		795	600	/ 595	x					x						
7		796	400	/ 400	x					x						
8		797	300	/ 300	x					x						
9		798	250	/ 250	x					x						
10		799	200	/ 199	x					x						
11		800	175	/ 175	x					x						
12		801	150	/ 150	x					x						
13		802	125	/ 126	x					x						
14		803	100	/ 95	x					x						
15		804	75	/ 75	x					x						
16		805	50	/ 50	x					x						
17		806	25	/ 23	x					x						
18		807	10	/ 10	x					x						
19		808	5	/ 5	x x	x				x						
20																
21																
22																
23																
24																

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

Bottom Depth: 2517 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	1659	1002
Bottom	1725	
End	1810	

Positional Information

Lat:	48 ° 49.050	N
Lon:	123 ° 39.990	W

Start

Bottom

End

Lat:	48 ° 49.000	N
Lon:	123 ° 40.020	W

Lat:	48 ° 49.010	N
Lon:	123 ° 40.610	W

Extra comments:
P8 - return
Oxy comparison with UVic

Water Properties Group

Sampling Log

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

Cruise ID: 2016-08

Station: P4

Event #: 112

Ship: Tully

UTC Date (dd mmm yyyy): 30 Aug 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut-F	Nut-C	Sal	CHL	HPLE	gases				
1		809	Bot-10	✓	1334	x	x	x							
2		810	1250	✓	1250	x	x	x	xx						
3		811	1000	✓	1000	xx	x	x	x						
4		812	800	✓	800	x	x	x	x						
5		813	600	✓	600	x	xx	xx							
6		814	400	✓	400	x	x	x							
7		815	200	✓	200	x	x								
8		816	150	✓	150	x	x								
9		817	100	✓	100	xx	x								
10		818	50	✓	50	x	x			x					
11		819	25	✓	25	x	x			xx					
12		820	10	✓	10	x	x			x					
13		821	1000	✓	1000	xx									
14		822	100	✓	100	xx									
15		823	5	✓	5	x	x	x			xx				
16		824	5	✓	5				xx	xx					
17															
18															
19		825	1000	✓	1000	xx									
20		826	1000	✓	1000	xx									
21		827	100	✓	100	xx									
22		828	100	✓	100	xx									
23															
24															

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

Bottom Depth: 1333 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	04:21	21:21
Bottom	04:42	
End	05:18	

Positional Information

Lat:	48 ° 38.67	N
Lon:	126 ° 40.05	W

Start

Lat: 48 ° 38.64 N
Lon: 126 ° 40.09 W

Bottom

Lat: 48 ° 38.60 N
Lon: 126 ° 40.08 W

End

Loops 2xCHL 1xSal

Extra comments:
P4 - return; OUT-OF-ORDER
1-3; 13; 19-20; 4-9; 14; 21-22;
10-12; 15-16 Plus all loops!
Niskins comp: spring VS tubes

At 315 Aug 30/2016, Noted deck unit still on from last cast which started @ 1659 (Aug 29/2016). Turned off until start of this cast.