

Water Properties Group

Rosette Log

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

Cruise ID: 2012-01 Station: SI 03Event #: 1Ship: TULLYUTC Date (dd|mmm|yyyy): 07 Feb 2012

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	Flask Serial #	Value mL · L ⁻¹	
1	1	1	Bot-ro	✓ 217	✓	✓				Anoxic
2	2	2	200	✓	✓	✓	✓			Anoxic
3	3	3	175	✓	✓	✓	✓			Anoxic
4	4	4	150	✓	✓	✓				Anoxic
5	5	5	125	✓	✓	✓				Anoxic
6	6	6	100	✓	✓	✓				
7	7	7	75	✓	✓	✓				
8	8	8	50	✓	✓	✓				
9	9	9	25	✓	✓	✓				
10	10	10	10	✓	✓	✓				
11	11	11	5		✓	✓	✓			
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										Not tripped (oops)

Watchkeeper(s):

RY HMBottom Depth: 228 mTransmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2323	1523
Bottom	2327	1527
End	2342	1542

Positional Information

Start
Lat: 48 ° 35.591 N
Lon: 123 ° 30.100 WBottom
Lat: 48 ° 35.608 N
Lon: 123 ° 30.085 WEnd
Lat: 48 ° 35.614 N
Lon: 123 ° 30.072 W

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹Std Value: _____ mL · L⁻¹

*Date Run: ____/____/____

Analyst: _____

* Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Rosette Log

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

Cruise ID: 2012-01 Station: PI Event #: 2 Ship: TULLY UTC Date (dd|mmm|yyyy): 06 | 02 | 12

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken								Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	Chl a	NH ₄	PAR			
1	12			MAX	☒ 30		☒		☒		☒			
2	13			5	☒	☒	☒	☒	☒		☒			
3														
4														
5														
6														
7	X LOOP	PI				☒	☒	☒	☒		☒			
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

LOOP

Watchkeeper(s): HM

Bottom Depth: 121 m

Transmisso Cleaned: ☒ Y / ☐ N

	UTC	Local
Start	1158	
Bottom	1202	
End	1205	

Positional Information

Start

Lat: 48 ° 34.56 N

Lon: 125 ° 30.01 W

Bottom

Lat: 48 ° 34.57 N

Lon: 125 ° 29.98 W

End

Lat: 48 ° 34.56 N

Lon: 125 ° 29.95 W

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹

Std Value: _____ mL · L⁻¹

*Date Run: ____ | ____ | ____

Analyst: _____

* Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01

Station: P2

Event #: 4

Ship: TULLY

UTC Date (dd mmm yyyy): 08 Feb 2012

			Rosette Operation			Samples Taken / Sampler's Initials										Comments									
Niskin #	Firing #	Sample #	Target Pressure	Confirmed	Pressure	Oxy	Nut Fr	Sal run	Sal St	DIC	pH	HLPC	CHL												
				✓			HM	PT	HM	HM	HR/PT	GC	PK	PK											
1	1	28	Bot-10	✓	107	xx	x		x	x	x														
2	2	29	100	✓		x	x	x	x	x	xxx		x												
3	3	30	75	✓		x	x		x	xx	x		x												
4	4	31	75	✓		x	x		x	x	x		x												
5	5	32	50	✓		x	x		x	x	x		x												
6	7	33	25	✓		xx	x		x	x	x		xx												
7	9	34	10	✓		x	xx		x	x	x		x												
8	10	35	5	✓		x	x	x	x	x	xxx		✓												
9	6	36	MAX 110	✓	30							xx													
10	8	37	MAX	✓	15							xx													
11	11	38	5	✓	5							xx													
12																									
13																									
14																									
15																									
16																									
17																									
18																									
19																									
20																									
21																									
22																									
23																									
24																									

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

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

	UTC	Local
Start	1445	0645
Bottom	1447	0647
End	1500	0700

Positional Information
 Start
 Lat: 48 ° 36 02 N
 Lon: 126 ° 00 02 W

Bottom
 Lat: 48 ° 36 01 N
 Lon: 126 ° 00 02 W

End
 Lat: 48 ° 36 00 N
 Lon: 126 ° 00 00 W

Extra comments: long. out. order PAR on.

1 2 3 4 5 6 7 8 9

① LIGHT + PROOF + DNA - CAST

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P4Event #: 5Ship: TULLYUTC Date (dd mmm yyyy): 09 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	µPlank	FCM	Chl	HPLC	HPLC	POP	POC/N		Prod	ONAr	Sal		
								Doug	IOS								
1	1	39	1%	✓ 50	x	x	x x x x	x x x x	xx								
2	2	40	1%	✓ 50						xx	xx						
3	4	41	5%	✓ 35		x	x x	x x									
4	6	42	9%	✓ 22	x	x	x x x x	x x x x									
5	7	43	9%	✓ 22						xx	xx						
6	9	44	17%	✓ 17		x	x x	x x									
7	11	45	33%	✓ 14	x	x	x x x x	x x x x	xx								
8	12	46	33%	✓ 14						xx	xx						
9	14	47	55%	✓ 8		x	x x	x x									
10	16	48	100%	✓ 5	x	x	x x x x	x x x x	xx								
11	17	49	100%	✓ 5						xx	xx						
12	3	50	1%	✓ 50									x				
13	5	51	5%	✓ 35									x				
14	8	52	9%	✓ 22									x				
15	10	53	17%	✓ 17									x				
16	13	54	33%	✓ 14									x				
17	15	55	55%	✓ 8									x				
18	18	56	100%	✓ 5									x				
19	19	57	5	✓ 5										x	x		
20																	
21																	
22																	
23																	
24																	

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

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

Time	UTC	Local
Start		
Bottom	2057	1257
End	2110	1310

Positional Information		
Lat:	48 ° 39.034	N
Lon:	126 ° 40.010	W

Start

Bottom

End

Lat:	49 ° 39.029	N
Lon:	126 ° 40.002	W

Lat:	48 ° 39.016	N
Lon:	126 ° 40.045	W

Extra comments:	
1-2-12-3-13-4-5-14-6-15-7-8-16-9-17-10-11-18-19	

② Th+Po CAST

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P4

Event #: 6

Ship: TULLY

UTC Date (dd mmm yyyy): 10 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ☒ Pressure	Th	Po											
1		58	500	✓ 500		x											
2		59	500	✓ 500	x												
3		60	400	✓ 400		x											
4		61	300	✓ 300	x												
5		62	300	✓ 300		x											
6		63	200	✓ 200	x												
7		64	200	✓ 200		x											
8		65	150	✓ 150	x												
9		66	150	✓ 150		x											
10		67	100	✓ 100	x												
11		68	100	✓ 100		x											
12		69	75	✓ 75	x												
13		70	75	✓ 75		x											
14		71	50	✓ 50	x												
15		72	50	✓ 50		x											
16		73	30	✓ 30	x												
17		74	30	✓ 30		x											
18		75	20	✓ 20	x												
19		76	20	✓ 20		x											
20		77	10	✓ 10	x												
21		78	10	✓ 10		x											
22		79	0		x												
23		80	Max	✓ 125		x											
24		81	Max	✓ 140	x												

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

Bottom Depth:	<u>1322</u> m
Transmisso Cleaned:	<u>Y</u> / <u>N</u>

Time	UTC	Local
Start	<u>0001</u>	<u>1601</u>
Bottom	<u>0013</u>	<u>1613</u>
End	<u>0040</u>	<u>1640</u>

Positional Information	
Start	Lat: <u>48° 39.020</u> N
	Lon: <u>126° 39.956</u> W

Bottom	Lat: <u>48° 39.011</u> N
	Lon: <u>126° 39.982</u> W

End	Lat: <u>48° 39.006</u> N
	Lon: <u>126° 40.026</u> W

Extra comments:
<u>1, 9, 23, 10, 15, 24, 16, ... 22</u>

③ TM- PUMP

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P4 Event #: 7 Ship: TULLY UTC Date (dd mmm yyyy): 10 FEB 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Filt	un-filt											
1		82	10		xx	xx											
2		83	25		x	x											
3		84	40		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: Pump TM
ROS TRM X-Niskin (other?)
Watchkeeper(s): KS

Bottom Depth: _____ m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0145	1745
Bottom		
End	0225	1825

Positional Information

Start	Lat: 48 ° 38.93	N
	Lon: 126 ° 40.01	W

Bottom

Lat: 48 ° 39.00	N
Lon: 126 ° 39.94	W

End

Lat: °	N
Lon: °	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P4 Event #: 10 Ship: TULLY UTC Date (dd mmm/yyyy): 10 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments		
			Target Pressure	Confirmed Pressure	OXY	Sal St	Sal R	Nut Fr	NutCo	DIC	pH	Chl	HPLC	FCM	DNA	Gases	WGA		H2S	
				✓		4.0					MP/KS	G C								
1		85	Bot-10	✓	1324	x	x		x	x	x	x			x	x	x x	x	x	
2		86	1250	✓		x	x	x x	x	x	x x	x								
3		87	1250	✓		x	x		x	x	x	x			x	x	x x	x	x	
4		88	1000	✓		x x	x	x x	x	x	x	x			x	x	x x	x	x	
5		89	800	✓		x	x	x	x	x	x	x			x	x	x x	x	x	
6		90	600	✓		x	x		x x	x x	x	x			x	x	x x	x	x	
7		91	400	✓		x	x		x	x	x x x				x	x	x x	x	x	
8		92	300	✓		x	x		x		x	x			x	x	x x	x	x	
9		93	250	✓		x	x		x		x	x								
10		94	200	✓		x	x		x		x	x			x	x	x x	x	x	
11		95	175	✓		x	x		x		x	x								
12		96	150	✓		x x	x		x		x	x			x	x	x x	x	x	
13		97	125	✓		x	x		x		x	x x x								
14		98	100	✓		x	x		x x		x	x	x		x	x	x x	x	x	
15		99	75	✓		x	x		x		x	x	x							
16		100	50	✓		x	x		x		x	x	x		x	x	x x	x	x	
17		101	25	✓		x	x		x		x	x	x		x	x	x x	x	x	
18		102	10	✓		x	x		x		x	x	xx		x	x	x x	x	x	
19		103	5	✓		x	x	x	x		x	x								
20		104	Max+10	✓	30								xx	xx						
21		105	Max	✓	15								xx	xx						
22		106	5	✓	5								xx	xx						+ phyto
23																				
24																				

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

Bottom Depth:	<u>323</u> m
Transmisso Cleaned:	<u>Y</u> / <u>N</u>

Time	UTC	Local
Start	<u>0853</u>	
Bottom	<u>0929</u>	
End	<u>1029</u>	<u>0229</u>

Positional Information
Lat: <u>48</u> ° <u>39.99</u> <u>N</u>
Lon: <u>126</u> ° <u>40.038</u> <u>W</u>

Start

Bottom

End

Lat: <u>48</u> ° <u>39.02</u> <u>N</u>
Lon: <u>126</u> ° <u>39.99</u> <u>W</u>

Lat: <u>48</u> ° <u>38.98</u> <u>N</u>
Lon: <u>126</u> ° <u>39.98</u> <u>W</u>

Extra comments:
<u>16, 20, 17, 21, 18</u>
<u>19, 22</u>

⑤ UBC cast

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P4 Event #: 13 Ship: TULLY UTC Date (dd mmm yyyy): 10 2 12

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments		
			Target Pressure	Confirmed ✓	Pressure	FCM	WGA	Gases	RNA	H2S	Sal	Nut Fr	Nut cool					
1	1	107	1300	✓		x	x	xx	x	x	x	x	x					
2	2	108	1300	✓														
3	3	109	1300	✓														
4	4	110	1000	✓		x	x	xx	x	x	x	x	x					
5	5	111	1000	✓														
6	6	112	1000	✓														
7	7	113	500	✓		x	x	xx	x	x	x	x	x					
8	8	114	500	✓														
9	9	115	500	✓														
10	10	116	10	✓		x	x	xx	x	x	x	x						
11	11	117	10	✓														
12	12	118	10	✓														
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: 1320 m
Transmisso Cleaned: (Y)1 N

Time	UTC	Local
Start	<u>1237</u>	<u>0437</u>
Bottom	<u>1303</u>	<u>0503</u>
End	<u>1337</u>	

Positional Information

Lat:	<u>48</u> ° <u>39.99</u>	N
Lon:	<u>126</u> ° <u>40.01</u>	W

Bottom

Lat:	<u>48</u> ° <u>39.02</u>	N
Lon:	<u>126</u> ° <u>39.87</u>	W

End

Lat:	<u>48</u> ° <u>38.99</u>	N
Lon:	<u>126</u> ° <u>39.96</u>	W

Extra comments:

Water Properties Group

Rosette Log

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

Cruise ID: 2012-01 Station: P6 Event #: 14 Ship: TULLY UTC Date (dd|mmm|yyyy): 10 | 2 | 12

Niskin #	Sample #	Oxygen Titrations		Rosette Operation			Samples Taken										Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ☒	Pressure	Oxy	Nut	Sal	Chl a	NO₃ HPLC						
1	119		3	MAX	☒	30		☒		☒	☒						
2	120			5	☒			☒	☒	☒	☒						
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s): H.M.

Bottom Depth: 254 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1800	1000
Bottom	1833	
End	1903	1103

Positional Information

Start
 Lat: 48 ° 44.63 N
 Lon: 127 ° 39.95 W

Bottom
 Lat: 48 ° 44.63 N
 Lon: 127 ° 40.02 W

End
 Lat: 48 ° 44.60 N
 Lon: 127 ° 39.96 W

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹
 Std Value: _____ mL · L⁻¹
 *Date Run: ____ | ____ | ____
 Analyst: _____

* Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P8Event #: 15Ship: TULLYUTC Date (dd mmm yyyy): 10 Feb 2010

			Rosette Operation		Samples Taken / Sampler's Initials														Comments
Niskin #	Firing #	Sample #	Target	Confirmed	Oxy	NutFr	NutCo	Sal St	SalRun	Chl	HPLC	pH	gases						
			Pressure	✓ Pressure															
1		121	2000	✓	2000	x	x	x	x	xx			x	xx					
2		122	1500	✓		x	x	x	x				x	xx					
3		123	1250	✓		x	x	x	x	x			x	xx					
4		124	1000	✓		xx	xx	xx	x	xx			x	xx					
5		125	800	✓		x	x	x	x	x			x	xx					
6		126	600	✓		x	x	x	x				x	xx					
7		127	400	✓		x	x	x	x				x	xx					
8		128	300	✓		x	x	x	x				x	xx					
9		129	250	✓		x	x		x				x						
10		130	200	✓		x	x		x				xxx	xx					
11		131	175	✓		xx	x		x				x						
12		132	150	✓		x	x		x				x	xx					
13		133	125	✓		x	x		x				x						
14		134	100	✓		x	x		x		x		x	xx					
15		135	75	✓		x	x		x		x		xxx						
16		136	50	✓		xx	x		x				x	xx					
17		137	25	✓		x	xx		x		x		x	xx					
18		138	10	✓		x	x		x		x		x	xx					
19		139	5			x	x		x	x			x						
20		140	Max+10	✓	50						xx	xx							
21		141	Max	✓	20						xx	xx							
22		142	5		5						xx	xx							
23																			
24																			

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

Bottom Depth:	<u>2517</u> m
Transmisso Cleaned:	☒ Y / ☐ N

	UTC	Local
Start	<u>2334</u>	<u>1534</u>
Bottom	<u>0030</u>	<u>1630</u>
End	<u>0136</u>	

Positional Information
Start
Lat: <u>48 ° 49.003</u> N
Lon: <u>128 ° 40.045</u> W

Bottom
Lat: <u>48 ° 48.998</u> N
Lon: <u>128 ° 40.042</u> W

End
Lat: <u>48 ° 49.01</u> N
Lon: <u>128 ° 40.00</u> W

Extra comments: <u>1-15,</u> <u>16, 20, 17, 21, 18, 19, 22</u>

Water Properties Group

Rosette Log

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

Cruise ID: 202-01 Station: P10 Event #: 17 Ship: TULLY UTC Date (dd|mmm|yyyy): 11 | Feb | 12

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken										Comments
		Flask Serial #	Value mL • L ⁻¹	Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	Chl a	NH ₄	HPLC					
1	143			MAX	☒ 30		☒		☒		W					
2	144			5	☒ 5		☒	☒	☒		W					
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): My

Bottom Depth: 2638 m

Transmisso Cleaned: ☒ Y / ☐ N

	UTC	Local
Time Start	<u>0707</u>	<u>2303</u>
Bottom	<u>0743</u>	<u>2343</u>
End	<u>0822</u>	<u>0022</u>

Positional Information

Start Lat: 48 ° 53.590 N
Lon: 129 ° 40.020 W

Bottom Lat: 48 ° 53.560 N
Lon: 129 ° 39.970 W

End Lat: 48 ° 53.60 N
Lon: 129 ° 40.00 W

Oxygen Info For This Cast

Blank Value: _____ mL • L⁻¹

Std Value: _____ mL • L⁻¹

*Date Run: ____ | ____ | ____

Analyst: _____

* Oxygen blanks and standards should be run daily, if possible

① Deep TM X-NISKINS

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P12

Event #: 18

Ship: TULLY

UTC Date (dd mmm yyyy): 11 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials					Comments									
			Target Pressure	Confirmed ☒ Pressure	Filt	UnFilt	SalRun	NutFr	NutCo										
1		145	800		x	x	x	x	x										
2		146	400		x	x													
3		147	300		x	x													
4		148	200		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): HS/HM

Bottom Depth: 2759 m
Transmisso Cleaned: Y / N

	UTC	Local
Start	<u>1300</u>	
Bottom	<u>1339</u>	
End	<u>1411</u>	

Positional Information

Lat:	<u>48 ° 58.15</u>	<u>N</u>
Lon:	<u>130 ° 39.95</u>	<u>W</u>

▼

Lat:	<u>48 ° 58.13</u>	<u>N</u>
Lon:	<u>130 ° 39.97</u>	<u>W</u>

▼

Lat:	<u>48 ° 58.07</u>	<u>N</u>
Lon:	<u>130 ° 39.97</u>	<u>W</u>

Extra comments:

② ThorCast

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: A2 Event #: 19 Ship: Tully UTC Date (dd mmm yyyy): 11 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments
			Target Pressure	Confirmed ✓ Pressure	Th	Po												
1		149	500	✓		x												
2		150	500	✓		x												
3		151	400	✓		x												
4		152	300	✓		x												
5		153	300	✓		x												
6		154	200	✓		x												
7		155	200	✓		x												
8		156	150	✓		x												
9		157	150	✓		x												
10		158	100	✓		x												
11		159	100	✓		x												
12		160	75	✓		x												
13		161	75	✓		x												
14		162	50	✓		x												
15		163	50	✓		x												
16		164	30	✓		x												
17		165	30	✓		x												
18		166	20	✓		x												
19		167	20	✓		x												
20		168	10	✓		x												
21		169	10	✓		x												
22		170	0	✓	3.1	x												
23		171	Max	✓	125	x												
24		172	Max	✓	40	x												

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): <u>H.M.</u>

Bottom Depth:	<u>2645</u> m
Transmisso Cleaned:	☒ Y ☐ N

	UTC	Local
Start	<u>1424</u>	<u>0624</u>
Bottom	<u>1436</u>	
End	<u>1501</u>	<u>0701</u>

Positional Information		
Lat:	<u>48</u> ° <u>58.13</u>	N
Lon:	<u>130</u> ° <u>39.87</u>	W

Lat:	<u>48</u> ° <u>58.18</u>	N
Lon:	<u>130</u> ° <u>40.02</u>	W

Lat:	<u>48</u> ° <u>58.20</u>	N
Lon:	<u>130</u> ° <u>40.03</u>	W

Extra comments:
<u>1, 2, 3, 4, 5, 6, 7, 8, 9, (23), 10, 11,</u>
<u>12, 13, 14, 15, 24, 16, 17, 18, 19, 20,</u>
<u>21, 22</u>

③ Shallow TM Niskins

Water Properties Group

Sampling Log

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

Cruise ID: 202-01 Station: P12 Event #: 20 Ship: TULLY UTC Date (dd mmm yyyy): 11 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials								Comments							
			Target Pressure	Confirmed ☒ Pressure	Filt	UnFilt	SalRun	NutFr												
1		173	150		x	x	x	x												
2		174	100		x	x														
3		175	75		x	x														
4		176	50		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):

Bottom Depth: 2695 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1511	0711
Bottom		
End		0750

Positional Information

Lat:	48 °	58.20	N
Lon:	136 °	40.02	W

Start

Bottom

End

Lat:	°	N
Lon:	°	W

Lat:	°	N
Lon:	°	W

Extra comments:

④ LIGHT+ PROD+ HPLC+ ONAR cast

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P12 Event #: 23 Ship: Tully UTC Date (dd mmm yyyy): 11 02 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	µPlank	FCM	Chl	HPLC	HPLC	POP	POC/N	Prod	ONAr	Sal	Chl IOS			
								Doug	IOS									
1	1	177	1%	✓ 95	x	x	x x x x	x x x x	xx						xx			
2	2	178	1%	✓ 95						xx	xx							
3	4	179	5%	✓ 55		x	x x	x x										
4	6	180	9%	✓ 41	x	x	x x x x	x x x x										
5	7	181	9%	✓ 41						xx	xx							
6	9	182	17%	✓ 26		x	x x	x x										
7	11	183	33%	✓ 12	x	x	x x x x	x x x x	xx						xx			
8	12	184	33%	✓ 12						xx	xx							
9	14	185	55%	✓ 8		x	x x	x x										
10	16	186	100%	✓ 0	x	x	x x x x	x x x x	xx						xx			
11	17	187	100%	✓ 0						xx	xx							
12	3	188	1%	✓ 95								x						
13	5	189	5%	✓ 55								x						
14	8	190	9%	✓ 41								x						
15	10	191	17%	✓ 26								x						
16	13	192	33%	✓ 12								x						
17	15	193	55%	✓ 8								x						
18	18	194	100%	✓ 0								x						
19	19	195	5	✓									x	x				
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 3280 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1712	912
Bottom	1716	917
End	1732	932

Positional Information
Start
Lat: 48 ° 58.186 N
Lon: 130 ° 40.028 W

Bottom
Lat: 48 ° 58.176 N
Lon: 130 ° 40.001 W

End
Lat: 48 ° 58.165 N
Lon: 130 ° 40.055 W

Extra comments:
1 - 2 - 12 - 3 - 13 - 4 - 5 - 14 - 6 - 15 - 7 - 8 -
16 - 9 - 17 - 10 - 11 - 18 - 19

12
Q₁₀ Dr

⑤ TM Pump

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P12 Event #: 24 Ship: TULLY UTC Date (dd mmm yyyy): 11 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ☒ Pressure	Filt	un-filt											
1		196	40		x	x											
2		197	25		x	x											
3		198	10		xx	xx											
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Profile type: TM Pumps
ROS TRM X-Niskin other?
Watchkeeper(s): KS/GC

Bottom Depth: 32.80 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>1904</u>	<u>1004</u>
Bottom		
End	<u>1840</u>	<u>1040</u>

Positional Information
Start
Lat: 48 ° 58.25 N
Lon: 130 ° 39.84 W

Bottom
Lat: ° N
Lon: ° W

End
Lat: 48 ° 58.24 N
Lon: 130 ° 39.86 W

Extra comments:

(6) Deep cast

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01

Station: P12

Event #: 25

Ship: TULLY

UTC Date (dd mmm yyyy): 11 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments		
			Target Pressure	Confirmed Pressure	OXY	Sal St	Sal R	Nut Fr	NutCo	DIC	pH	Chl	FCM	DNA	Gases	WGA		H2S	
			✓		K 04	IAW	IAW	PB	PB	NR KS	G	04	MB	MB AII	PT JC	MB		PB	
1	1	199	Bot-10	✓	3276	x	x		xx	xx	x	x		x	x	xx	x	x	
2	2	200	3000	✓		x	x	xx	x	x	xx	x							
3	3	201	3000	✓		x	x		x	x	x	x		x	x	xx	x	x	
4	4	202	2500	✓		x	x		x	x	x	x							
5	5	203	2000	✓		x	x	x	xx	xx	x	x		x	x	xx	x	x	
6	6	204	1500	✓		xx	x		x	x	x	x		x	x	xx	x	x	
7	7	205	1250	✓		x	x		x	x	x	x		x	x	xx	x	x	
8	8	206	1000	✓		x	x	xx	x	x	x	x		x	x	xx	x	x	
9	9	207	800	✓		x	x	x	x	x	x	x		x	x	xx	x	x	
10	10	208	600	✓		x	x		x	x	x	x		x	x	xx	x	x	
11	11	209	400	✓		x	x		x	x	x	x		x	x	xx	x	x	
12	12	210	300	✓		x	x		x		x	x		x	x	xx	x	x	
13	13	211	250	✓		x	x		x		x	xxx							
14	14	212	200	✓		x	x		x		x	x		x	x	xx	x	x	
15	15	213	175	✓		xx	x		x		x	x							
16	16	214	150	✓		x	x		xx		x	x		x	x	xx	x	x	
17	17	215	125	✓		x	x		x		x	x							
18	18	216	100	✓		x	x		x		x	x	x	x	x	xx	x	x	
19	19	217	75	✓		x	x		x		x	xxx	x						
20	20	218	50	✓		x	x		x		x	x	x	x	x	xx	x	x	
21	21	219	25	✓		x	x		x		x	x	x	x	x	xx			
22	22	220	10	✓		x	x		x		x	x	xx	x	x	xx	x	x	
23	23	221	5	✓		xx	x	x	x		x	x	x						
24																			

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

Watchkeeper(s): H.M.

Bottom Depth: 3233 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1852	1052
Bottom	2008	1252
End	2207	1407

Positional Information

Start

Lat: 48 ° 58.25 N

Lon: 130 ° 39.95 W

Bottom

Lat: 48 ° 58.224 N

Lon: 130 ° 39.948 W

End

Lat: 48 ° 58.210 N

Lon: 130 ° 39.965 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P12Event #: 27Ship: TULYUTC Date (dd mmm yyyy): 12 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials														Comments
			Target Pressure	Confirmed ✓	Pressure	FCM	WGA	Gases	RNA	H2S	Sal	Nut Fr	Nut cool							
1	1	222	2000	✓		x	x	xx	x	x	x	x	x							
2	2	223	2000	✓																
3	3	224	2000	✓																
4	4	225	1000	✓		x	x	xx	x	x	x	x	x							
5	5	226	1000	✓																
6	6	227	1000	✓																
7	7	228	500	✓		x	x	xx	x	x	x	x	x							
8	8	229	500	✓																
9	9	230	500	✓																
10	10	231	10	✓		x	x	xx	x	x	x	x								
11	11	232	10	✓																
12	12	233	10	✓																
13																				
14																				
15																				
16																				
17																				
18																				
19																				
20																				
21																				
22																				
23																				
24																				

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

Bottom Depth:	<u>3233</u> m
Transmisso Cleaned:	☒ I N

Time	UTC	Local
Start	<u>0236</u>	<u>1836</u>
Bottom	<u>0324</u>	<u>1924</u>
End	<u>0421</u>	<u>2021</u>

Positional Information	
Start	Lat: <u>48° 58.195</u> N
	Lon: <u>130° 40.028</u> W

Bottom	Lat: <u>48° 58.182</u> N
	Lon: <u>130° 39.972</u> W

End	Lat: <u>48° 58.166</u> N
	Lon: <u>130° 40.102</u> W

Extra comments:

① LIGHT + PROD + HPLC cast

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P16Event #: 28Ship: TULLYUTC Date (dd mmm yyyy): 12 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ✓ Pressure	µPlank	FCM	Chl	HPLC	HPLC	POP	POC/N		Prod	ONAr					Sal
								Doug	IOS										
1	1	234	1%	✓ 95	x	x	x x x x	x x x x	xx								xx		
2	2	235	1%	✓ 95						xx	xx								
3	4	236	5%	✓ 70		x	x x	x x											
4	6	237	9%	✓ 58	x	x	x x x x	x x x x											
5	7	238	9%	✓ 58						xx	xx								
6	9	239	17%	✓ 50		x	x x	x x											
7	11	240	33%	✓ 20	x	x	x x x x	x x x x	xx								xx		
8	12	241	33%	✓ 20						xx	xx								
9	14	242	55%	✓ 10		x	x x	x x											
10	16	243	100%	✓ 2	x	x	x x x x	x x x x	xx								xx		
11	17	244	100%	✓ 2						xx	xx								
12	3	245	1%	✓ 95									x						
13	4 5	246	5% 1%	✓ 70 95									x						accidental trip @
14	8	247	9%	✓ 58									x						
15	10	248	17%	✓ 50									x						
16	13	249	33%	✓ 20									x						
17	15	250	55%	✓ 10									x						
18	18	251	100%	✓ 2									x						
19	19	252	5	✓ 5										x		x			
20																			
21																			
22																			
23																			
24																			

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

Bottom Depth: 3634 m
 Transmisso Cleaned: Y / N

	UTC	Local
Start	2125	1325
Bottom	2132	1333
End	2150	1350

Positional Information

Start
 Lat: 49° 17.047 N
 Lon: 134° 39.940 W

Start

Bottom

Bottom
 Lat: 49° 17.154 N
 Lon: 134° 39.887 W

End

End
 Lat: 49° 17.144 N
 Lon: 134° 39.896 W

Extra comments:
~~1-2-12-3-13-4-5-14-6-15-7-8-16-9-17-18-10-11-12~~
 1-2-12-13-3-4-5-14-6-15-7-8-16-9-17-18-10-11-18

② TM Deep X-Niskins

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P16 Event #: 29 Ship: TULLY UTC Date (dd mmm yyyy): 12 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed √	Pressure	Filt	UnFilt	SalRun	NutFr	NutCo									
1		253	800			x	x	x	x	x									
2		254	400			x	x												
3		255	300			x x	x x												
4		256	200			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): KS/OY

Bottom Depth: 3634 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>2205</u>	<u>1405</u>
Bottom	<u>2245</u>	
End	<u>2318</u>	

Positional Information

Start	Lat: <u>49° 17.36</u>	<u>N</u>
	Lon: <u>134° 40.14</u>	<u>W</u>
	▼	
Bottom	Lat: <u>49° 17.00</u>	<u>N</u>
	Lon: <u>134° 40.10</u>	<u>W</u>
	▼	
End	Lat: <u>°</u>	<u>N</u>
	Lon: <u>°</u>	<u>W</u>

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2012- Station: P16 Event #: 30 Ship: TULLY UTC Date (dd mmm yyyy): 12 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments
			Target Pressure	Confirmed ✓ Pressure	Th	Po												
1	1	257	500	✓		x												
2	2	258	500	✓		x												
3	3	259	400	✓			x											
4	4	260	300	✓		x												
5	5	261	300	✓			x											
6	6	262	200	✓		x												
7	7	263	200	✓			x											
8	8	264	150	✓		x												
9	9	265	150	✓			x											
10	11	266	100	✓		x												
11	12	267	100	✓			x											
12	13	268	75	✓		x												
13	14	269	75	✓			x											
14	15	270	50	✓		x												
15	16	271	50	✓			x											
16	18	272	30	✓		x												
17	19	273	30	✓			x											
18	20	274	20	✓		x												
19	21	275	20	✓			x											
20	22	276	10	✓		x												
21	23	277	10	✓			x											
22	24	278	0			x												
23	10	279	Max	✓	125		x											
24	17	280	Max	✓	40	x												

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

Bottom Depth:	<u>3634</u> m
Transmisso Cleaned:	☒ Y / ☐ N

Time	UTC	Local
Start	<u>2330</u>	<u>1530</u>
Bottom	<u>2343</u>	<u>1543</u>
End	<u>0014</u>	<u>1614</u>

Positional Information		
Start	Lat: <u>49° 17.01</u>	<u>N</u>
	Lon: <u>134° 39.97</u>	<u>W</u>

Bottom	Lat: <u>49° 17.01</u>	<u>N</u>
	Lon: <u>134° 39.98</u>	<u>W</u>

End	Lat: <u>49° 17.008</u>	<u>N</u>
	Lon: <u>134° 40.000</u>	<u>W</u>

Extra comments:
<u>out of order</u>
<u>PAR on</u>
<u>8-9-23-16-11-15-13</u>
<u>11-15-24-16-17</u>

Water Properties Group

④ TM shallow
Sampling Log

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

Cruise ID: 2012-01 Station: P16 Event #: 31 Ship: TULLY UTC Date (dd mmm yyyy): 13 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed ☒ Pressure	Filt	UnFilt	SalRun	NutFr								
1		281	150		x	x	x	x								
2		282	100		x	x										
3		283	75		x	x										
4		284	50		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 ☒ Niskin other?
Watchkeeper(s): <u>KS/0Y</u>

Bottom Depth:	<u>3635</u> m
Transmisso Cleaned:	<u>Y/N</u>

Time	UTC	Local
Start	<u>0026</u>	<u>1626</u>
Bottom	<u>0037</u>	
End	<u>0049</u>	

Positional Information
Start
Lat: <u>49 ° 17.00</u> N
Lon: <u>134 ° 40.01</u> W

Bottom
Lat: <u>49 ° 17.01</u> N
Lon: <u>134 ° 40.02</u> W

End
Lat: <u>49 ° 16.99</u> N
Lon: <u>134 ° 40.01</u> W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P16 Event #: 34 Ship: TULLY UTC Date (dd mmm yyyy): 13 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed		OXY	Sal St	Sal R	Nut Fr	NutCo	DIC	pH	Chl	FCM	DNA	Gases	WGA		H2S
				✓	Pressure														
						KS/GS	KS/GS	NS	DY	DY	NA/PT	GC	NS						
1	1	285	Bot-10	✓	3684	x	x		x	x	x	x		x	x	xx	x	x	
2	2	286	3500	✓		x	x	x	x	x	xx	x							
3	3	287	3500	✓		x	x		xx	xx	x	x							
4	4	288	3000	✓		x	x	xx	x	x	x	x		x	x	xx	x	x	
5	5	289	2500	✓		xx	x		x	x	x	x							
6	6	290	2000	✓		x	x	x	x	x	x	x		x	x	xx	x	x	
7	7	291	1500	✓		x	x		x	x	x	x		x	x	xx	x	x	
8	8	292	1250	✓		x	x		x	x	x	x		x	x	xx	x	x	
9	9	293	1000	✓		x	x	xx	xx	xx	x	x		x	x	xx	x	x	
10	10	294	800	✓		x	x	x	x	x	x	x		x	x	xx	x	x	
11	11	295	600	✓		x	x		x	x	x	xxx		x	x	xx	x	x	
12	12	296	400	✓		x	x		x	x	x	x		x	x	xx	x	x	
13	13	297	300	✓		x	x		x		x	x		x	x	xx	x	x	
14	14	298	250	✓		xx	x		x		x	x							
15	15	299	200	✓		x	x		x		x	x		x	x	xx	x	x	
16	16	300	175	✓		x	x		x		x	xxx							
17	17	301	150	✓		x	x		x		x	x		x	x	xx	x	x	
18	18	302	125	✓		x	x		xx		x	x							
19	19	303	100	✓		x	x		x		x	x	x	x	x	xx	x	x	
20	20	304	75	✓		x	x		x		x	x	x						
21	21	305	50	✓		x	x		x		x	x	x	x	x	xx	x	x	
22	22	306	25	✓		x	x		x		x	x	xx	x	x	xx	x	x	
23	23	307	10	✓		xx	x		x		x	x	x	x	x	xx	x	x	
24	24	308	5			x	x	x	x		x	x	x						

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): <u>DY (MA)</u>

Bottom Depth:	<u>3635</u> m
Transmisso Cleaned:	☒ Y / ☐ N

Time	UTC	Local
Start	<u>0200</u>	<u>1800</u>
Bottom	<u>0322</u>	<u>1922</u>
End	<u>0503</u>	<u>2103</u>

Positional Information
Lat: <u>49° 16.97</u> <u>N</u>
Lon: <u>134° 40.00</u> <u>W</u>

Start
Lat: <u>49° 16.987</u> <u>N</u>
Lon: <u>134° 39.996</u> <u>W</u>

Bottom
Lat: <u>49° 16.976</u> <u>N</u>
Lon: <u>134° 40.018</u> <u>W</u>

End
Extra comments:
<u>PAR off</u>

⑥ TM pumping

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01

Station: P16

Event #: 35

Ship: TULLY

UTC Date (dd mmm yyyy): 13 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓	Pressure	Filt	un-filt										
1		309	40			x	x										
2		310	25			x	x										
3		311	10			xx	xx										
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 3634 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0530	2130
Bottom	0537	2137
End	0613	2213

Positional Information
Start
Lat: 49 ° 16.944 N
Lon: 134 ° 40.014 W

Bottom
Lat: 49 ° 16.700 N
Lon: 134 ° 40.050 W

End
Lat: 49 ° 16.669 N
Lon: 134 ° 40.145 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P24Event #: 36Ship: TullyUTC Date (dd mmm yyyy): 14 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	pH	DIC	Sal	NutFr	Chl	HPLC					
1		312		✓	2000	xxx	xxx	x							Spigot leaking
2		313		✓	2000	xxx	xxx	x							
3		314		✓	2000	xxx	xxx	x							
4		315		✓	2000	xxx	xxx	x							
5		316		✓	2000	xxx	xxx	x							
6		317		✓	2000			x							
7		318		✓	2000			x							
8		319		✓	2000			x							+48 sals for time exp
9		320		✓	2000			x							} carbony 1
10		321		✓	2000			x							}
11		322		✓	2000			x							} carbony 2
12		323		✓	2000			x							}
13		324		✓	2000			x							
14		325		✓	2000			x							
15		326		✓	2000			x							
16		327		✓	2000			x							
17		328		✓	2000			x							
18		329		✓	2000			x							
19		330		✓	2000			x							
20		331		✓	2000			x							
21		332		✓	2000			x							
22		333		✓	2000			x							
23		334	50	✓	Max			x	x	x	xx				
24		335			5			x	x	x	xx				

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): <u>A.M</u>

Bottom Depth:	<u>3987</u>	m
Transmisso Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	<u>1913</u>	<u>11:13</u>
Bottom	<u>1958</u>	<u>1158</u>
End	<u>2049</u>	<u>1249</u>

Positional Information
Lat: <u>49</u> ° <u>50.20</u> <u>N</u>
Lon: <u>142</u> ° <u>40.05</u> <u>W</u>

Start

Lat: <u>49</u> ° <u>50.23</u> <u>N</u>
Lon: <u>142</u> ° <u>40.08</u> <u>W</u>

Bottom

Lat: <u>49</u> ° <u>50.28</u> <u>N</u>
Lon: <u>142</u> ° <u>40.08</u> <u>W</u>

End

Extra comments:

Water Properties Group

Rosette Log

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

Cruise ID: 2012-01 Station: P25 Event #: 37 Ship: RVU UTC Date (dd|mmm|yyyy): 15 | Feb | 2012

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken								Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	Chl a	MP HPLC				
1	336			MAX	☒ 50		☒		☒	☒				
2	337			5	☒		☒	☒	☒	☒				
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

Watchkeeper(s): DY

Bottom Depth: 4205 m

Transmisso Cleaned: ☒ Y / N

Time	UTC	Local
Start	0100	1700
Bottom	0129	1729
End	0204	1804

Positional Information

Start Lat: 50° 00.01 N
Lon: 143° 36.33 W

Bottom Lat: 50° 00.02 N
Lon: 143° 36.33 W

End Lat: 49° 59.986 N
Lon: 143° 36.454 W

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹

Std Value: _____ mL · L⁻¹

*Date Run: ____ | ____ | ____

Analyst: _____

*Oxygen blanks and standards should be run daily, if possible

Water Properties Group

① UBC + Shallow ONAr cast

Sampling Log

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

Cruise ID: 2012-01 Station: P26Event #: 38Ship: TULLYUTC Date (dd mmm yyyy): 15 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials								Comments			
			Target Pressure	Confirmed ✓ Pressure	FCM	WGA	Gases	RNA	H2S	Sal	Nut Fr	Nut cool	Uvic OXY	Uvic ONAr	UW ONAr	UW DIC
1	1	340	2000	✓	x	x	xx	x	x	x	x	x				
2	2	341	2000	✓												
3	3	342	2000	✓												
4	4	343	1000	✓	x	x	xx	x	x	x	x	x				
5	5	344	1000	✓												
6	6	345	1000	✓												
7	7	346	500	✓	x	x	xx	x	x	x	x	x				
8	8	347	500	✓												
9	9	348	500	✓												
10	13	349	10		x	x	xx	x	x	x	x					
11	14	350	10													
12	15	351	10													
13																
14																
15																
16																
17	10	352	30							x			xx		xx	x
18	11	353	20							x			xx		xx	x
19	12	354	10							x			xx		xx	xx
20	16	355	5							x			xx	xx	xx	x
21	17	356	0							x			xx		xx	x
22																
23																
24																

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

Bottom Depth: 4494 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>0838</u>	<u>0038</u>
Bottom	<u>0924</u>	
End	<u>1013</u>	

Positional Information

Start	Lat: <u>50 ° 00 . 00</u>	N
	Lon: <u>145 ° 00 . 10</u>	W

Bottom

	Lat: <u>50 ° 00 . 03</u>	N
	Lon: <u>144 ° 59 . 98</u>	W

End

	Lat: <u>50 ° 00 . 03</u>	N
	Lon: <u>145 ° 00 . 01</u>	W

Extra comments:
1-2-3-4-5-6-7-8-9-17-18-19-10-11-12-20-21

② Deep ONAr

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P26 Event #: 40 Ship: TULLY UTC Date (dd mmm yyyy): 15 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials								Comments				
			Target Pressure	Confirmed ✓ Pressure	Uvic	Uvic	O17	Sal									
1	1	357	200	✓	xx		xx	x									
2	2	358	150	✓	xx		xx	x									
3	3	359	100	✓	xx		xx	x									
4	4	360	50	✓	xx		xx	x									
5	5	361	10	✓	xx	xx	xx	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): H.m.

Bottom Depth: 4253 m
Transmisso Cleaned: ☒ Y ☐ N

	Time	UTC	Local
Start		1200	0400
Bottom		1206	
End		1215	

Positional Information

Start	Lat: <u>50</u> ° <u>00.04</u> N
	Lon: <u>145</u> ° <u>00.03</u> W
▼	
Bottom	Lat: <u>50</u> ° <u>00.01</u> N
	Lon: <u>145</u> ° <u>00.02</u> W
▼	
End	Lat: <u>50</u> ° <u>00.02</u> N
	Lon: <u>145</u> ° <u>00.04</u> W

Extra comments:

③ TM Deep X-NISK

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01

Station: P26

Event #: 41

Ship: TULLY

UTC Date (dd mmm yyyy): 15

2

12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ☒ Pressure	Filt	UnFilt	SalRun	NutFr	NutCo						
1		362	800		xx	xx	x	x	x						
2		363	400		xx	xx									
3		364	300		xx	xx									
4		365	200		xx	xx									
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): KM/KS

Bottom Depth: 4308 m
Transmisso Cleaned: Y / N

	Time	UTC	Local
Start		1245	
Bottom		1302	
End		1338	

Positional Information

Start	Lat: 50	°	00.00	N
	Lon: 145	°	00.08	W

Bottom

	Lat: 50	°	00.00	N
	Lon: 145	°	00.09	W

End

	Lat: 49	°	59.99	N
	Lon: 144	°	59.96	W

Extra comments:

④ Th+Po Cast

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P26

Event #: 44

Ship: TULLY

UTC Date (dd mmm yyyy): 15 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ☒ Pressure	Th	Po											
1		366	500	✓		x											
2		367	500	✓		x											
3		368	400	✓		x											
4		369	300	✓		x											
5		370	300	✓		x											
6		371	200	✓		x											
7		372	200	✓		x											
8		373	150	✓		x											
9		374	150	✓		x											
10		375	100	✓		x											
11		376	100	✓		x											
12		377	75	✓		x											
13		378	75	✓		x											
14		379	50	✓		x											
15		380	50	✓		x											
16		381	30	✓		x											
17		382	30	✓		x											
18		383	20	✓		x											
19		384	20	✓		x											
20		385	10	✓		x											
21		386	10	✓		x											
22		387	0	✓		x											
23		388	Max	✓	125	x											
24		389	Max	✓	40/25	x											

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

Bottom Depth: 4308 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	<u>1450</u>	<u>0650</u>
Bottom		
End	<u>1529</u>	<u>729</u>

Positional Information

Start	Lat: <u>49</u> ° <u>59.99</u>	<u>N</u>
	Lon: <u>144</u> ° <u>59.97</u>	<u>W</u>

Bottom

Lat: °	<u>N</u>
Lon: °	<u>W</u>

End

Lat: <u>49</u> ° <u>59.992</u>	<u>N</u>
Lon: <u>144</u> ° <u>59.986</u>	<u>W</u>

Extra comments:

⑤ TM Shallow X-NISKINS

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P26 Event #: 45 Ship: TULLY UTC Date (dd mmm yyyy): 15 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ☒ Pressure	Filt	UnFilt	SalRun	NutFr										
1		390	150		xx	xx	x	x										
2		391	100		xx	xx												
3		392	75		xx	xx												
4		393	50		xx	xx												
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):

Bottom Depth: 4308 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1545	
Bottom	1552	
End	1608	

Positional Information

Lat:	49 ° 59.98	N
Lon:	144 ° 59.12	W

▼

Lat:	49 ° 59.98	N
Lon:	144 ° 59.13	W

▼

Lat:	49 ° 59.95	N
Lon:	144 ° 59.84	W

Extra comments:

Water Properties Group

⑥ Cast for Roger François (Philippe)
Sampling Log

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

Cruise ID: 2012-01 Station: P26 Event #: 46 Ship: JULY UTC Date (dd mmm yyyy): 15 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure													
1	1	394	300	✓													
2	2	395	300	✓													
3	3	396	300	✓													
4	4	397	300	✓													
5	5	398	300	✓													
6	6	399	300	✓													
7	7	400	300	✓													
8	8	401	300	✓													
9	9	402	300	✓													
10	10	403	300	✓													
11	11	404	300	✓													
12	12	405	300	✓													
13	13	406	300	✓													
14	14	407	300	✓													
15	15	408	300	✓													
16	16	409	300	✓													
17	17	410	300	✓													
18	18	411	300	✓													
19	19	412	300	✓													
20	20	413	300	✓													
21	21	414	300	✓													
22	22	415	300	✓													
23	23	416	300	✓													
24	24	417	300	✓													

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

Bottom Depth: 4308 m
Transmisso Cleaned: ☒ Y / ☐ N

	UTC	Local
Time Start	1622	822
Bottom	1629	829
End	1639	839

Positional Information
Start Lat: 49 ° 59.99 N
Lon: 144 ° 59.94 W

Bottom Lat: 50 ° 00.02 N
Lon: 144 ° 59.98 W

End Lat: 49 ° 59.96 N
Lon: 144 ° 59.92 W

Extra comments:

⑦ TM- PUMP

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P26 Event #: 43 Ship: TULLY UTC Date (dd mmm yyyy): 15 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ☒	Pressure	Filt	un-filt										
1		418	40			xx	xx										
2		419	25			xx	xx										
3		420	10			xx	xx										
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Profile type: PUMP
ROS TRM ☒ Niskin ☐ other?
Watchkeeper(s): KS.

Bottom Depth: _____ m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1738	0938
Bottom	1748	0948
End	1843	1043

Positional Information

Start	Lat:	°	N
	Lon:	°	W
Bottom	Lat:	°	N
	Lon:	°	W
End	Lat:	49 ° 59.95	N
	Lon:	144 ° 59.97	W

Extra comments:

⑧ LIGHT + HPLC cast

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P26 Event #: 49 Ship: TULLY UTC Date (dd mmm yyyy): 15 2 12

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ✓	Pressure	µPlank	FCM	Chl	HPLC	HPLC	POP	POC/N		Prod	ONAr	NutFr	Chl IOS	phyto		
									Doug	IOS										
1		421	1%	✓	75	x	x	x x x x	x x x x											
2		422	1%	✓	75						xx	xx								
3		423	5%	✓	47		x	x x	x x											
4		424	9%	✓	36	x	x	x x x x	x x x x											
5		425	9%	✓	36						xx	xx								
6		426	17%	✓	25		x	x x	x x											
7		427	33%	✓	15	x	x	x x x x	x x x x											
8		428	33%	✓	15						xx	xx								
9		429	55%	✓	10		x	x x	x x											
10		430	100%		0	x	x	x x x x	x x x x											
11		431	100%		0						xx	xx								
12		432	50	✓						xx						x	xx			
13		433	20	✓						xx						x	xx			
14		434	5	✓						xx						x	xx	xxx		
15																				
16																				
17																				
18																				
19																				
20																				
21																				
22																				
23																				
24																				

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

Bottom Depth: 4308 m
Transmissio Cleaned: Y / N

Time	UTC	Local
Start	1853	1053
Bottom	1857	
End	1912	

Positional Information
Start
Lat: 50 ° 00.01 N
Lon: 144 ° 59.98 W

Bottom
Lat: 49 ° 59.99 N
Lon: 144 ° 59.97 W

End
Lat: 49 ° 59.99 N
Lon: 145 ° 00.00 W

Extra comments:

Water Properties Group

⑨ Deep Cast
Sampling Log

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

Cruise ID: 2012-01 Station: P26 Event #: 50 Ship: TULLY UTC Date (dd mmm yyyy): 15 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed ✓	Pressure	OXY	Sal St	Sal R	Nut Fr	NutCo	DIC/Aik	pH	Chl	FCM	DNA	Gases	WGA		H2S
1	1	435	Bot-10	✓	4313	x	x		xx	x	x	x		x	x	xx	x	x	
2	2	436	4000	✓		xx	x	x	xx	1+4	xx	x		x	x	xx	x	x	
3	3	437	3500	✓		x	x	x	xx	x	x	x							
4	4	438	3000	✓		x	x	xx	xx	x	x	x		x	x	xx	x	x	
5	5	439	2500	✓		x	x		xxx	xx	x	x							
6	6	440	2000	✓		x	x	x	xx	x	x	x		x	x	xx	x	x	
7	7	441	1500	✓		x	x		xx	x	x	x		x	x	xx	x	x	
8	8	442	1250	✓		x	x		xx	x	x	x		x	x	xx	x	x	
9	9	443	1000	✓		xx	x	xx	xx	1+4	x	x		x	x	xx	x	x	
10	10	444	800	✓		x	x	x	xxx	xx	x	x		x	x	xx	x	x	
11	11	445	600	✓		x	x		xx	1+4	x	x		x	x	xx	x	x	
12	12	446	400	✓		x	x		xx	1+4	x	x		x	x	xx	x	x	
13	13	447	300	✓		x	x		xx		x	x		x	x	xx	x	x	
14	14	448	250	✓		xx	x		2+4		x	x							
15	15	449	200	✓		x	x		xx		x	x		x	x	xx	x	x	
16	16	450	175	✓		x	x		xx		x	xxx							
17	17	451	150	✓		x	x		xx		x	x		x	x	xx	x	x	
18	18	452	125	✓		x	x		xx		x	x							
19	19	453	100	✓		x	x		xx		x	x	x	x	x	xx	x	x	
20	20	454	75	✓		xx	x		xx		x	xxx	x						
21	21	455	50	✓		x	x		xxx		x	x	x	x	x	xx	x	x	
22	22	456	25	✓		x	x		xx		x	x	x	x	x	xx	x	x	
23	23	457	10	✓		x	x		2+4		x	x	xx	x	x	xx	x	x	
24	24	458	5	✓		x	x	x	xx		x	x	x						

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): DYBottom Depth: 4305 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1952	1152
Bottom	2152	1352
End	2357	1557

Positional Information
Start
Lat: 50° 0.023 N
Lon: 145° 0.035 WBottom
Lat: 49° 59.99 N
Lon: 144° 59.99 WEnd
Lat: 50° 0.02 N
Lon: 145° 0.04 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: PA-005Event #: 56Ship: TULLYUTC Date (dd mmm yyyy): 16 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ☒ Pressure	Uvic OXY	UW ONAr	DIC	DOC	Sal									
1	1	460	250	☒					XX	X								
2	2	461	200	☒					XX	X								
3	3	462	150	☒					XX	X								
4	4	463	125	☒					XX	X								
5	5	464	100	☒					XX	X								
6	6	465	75	☒					XX	X								
7	7	466	50	☒					XX	X								
8	8	467	30	☒		XX	XX	X	XX	X								
9	9	468	20	☒		XX	XX	X	XX	X								
10	10	469	10	☒		XX	XX	X	XX	X								
11	11	470	5	☒		XX	XX	XX	XX	X								
12	12	471	0	☒	23	XX	XX	X	XX	X								
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth:	<u>4216</u> m
Transmisso Cleaned:	<u>Y</u> / <u>N</u>

Time	UTC	Local
Start	<u>0548</u>	<u>2148</u>
Bottom	<u>0555</u>	<u>2155</u>
End	<u>0614</u>	<u>2214</u>

Positional Information
Lat: <u>50° 6.98</u> N
Lon: <u>144° 48.69</u> W

Start

Lat: <u>50° 6.97</u> N
Lon: <u>144° 48.73</u> W

Bottom

Lat: <u>50° 6.98</u> N
Lon: <u>144° 48.70</u> W

End

Extra comments:

Water Properties Group

Rosette Log

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

Cruise ID: 2012-01 Station: P22 Event #: 58 Ship: TULLY UTC Date (dd|mmm|yyyy): 16 | Feb | 2012

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken								Comments
		Flask Serial #	Value mL • L ⁻¹	Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	Chl a	MP HPLC				
1	472			600	☒ 600		☒							HNUTS + Nitrogen
2	473			40	☒		☒		☒	☒				Chl Max
3	474			5	☒		☒	☒	☒	☒				
4	475			5	☒		☒							HNUTS
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

Watchkeeper(s): SY

Bottom Depth: 3934 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2105	1305
Bottom	2130	1330
End	2157	1357

Positional Information
Start
Lat: 49 ° 42.03 N
Lon: 140 ° 40.16 W

Bottom
Lat: 49 ° 42.02 N
Lon: 140 ° 40.02 W

End
Lat: 49 ° 42.04 N
Lon: 140 ° 40.05 W

Oxygen Info For This Cast
Blank Value: _____ mL • L⁻¹
Std Value: _____ mL • L⁻¹
*Date Run: ____ | ____ | ____
Analyst: _____

* Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Rosette Log

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

Cruise ID: 2012-01

Station: P21

Event #: 59

Ship: Tully

UTC Date (dd|mmm|yyyy): 16 | Feb | 2012

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken											Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	Chl a	NH ₄	HPLC						
1	476			Chr Max	☒	40	☒		☒		☒	☒					
2	477			5	☒		☒	☒	☒		☒	☒					
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s):
DY JW

Bottom Depth: 3958 m

Transmisso Cleaned: ☒ Y / N

Time	UTC	Local
Start	<u>0110</u>	<u>1710</u>
Bottom	<u>0133</u>	<u>1733</u>
End	<u>0201</u>	<u>1801</u>

Positional Information

Start

Lat: 49 ° 38.06 N

Lon: 139 ° 39.95 W

Bottom

Lat: 49 ° 38.02 N

Lon: 139 ° 39.98 W

End

Lat: 49 ° 38.03 N

Lon: 139 ° 39.88 W

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹

Std Value: _____ mL · L⁻¹

*Date Run: ____ | ____ | ____

Analyst: _____

*Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P20Event #: 60Ship: TULLYUTC Date (dd mmm yyyy): 17 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials														Comments
			Target Pressure	Confirmed Pressure	OXY	Sal St	Sal R	Nut Fr	NutCo	DIC	pH	Chl	HPLC	FCM	DNA	Gases	WGA	H2S	
1	1	478	1500	✓		x	x		x	x	x	x		x	x	xx	x	x	
2	2	479	1500	✓		x	x	xx	x	x	xx	x							
3	3	480	1250	✓		x	x		x	x	x	x		x	x	xx	x	x	
4	4	481	1000	✓		xx	x	xx	x	x	x	x		x	x	xx	x	x	
5	5	482	800	✓		x	x	x	xx	xx	x	x		x	x	xx	x	x	
6	6	483	600	✓		x	x		x	x	x	x		x	x	xx	x	x	
7	7	484	400	✓		x	x		x	x	x	x		x	x	xx	x	x	
8	8	485	300	✓		x	x		x		x	x		x	x	xx	x	x	
9	9	486	250	✓		x	x		x		x	xxx							
10	10	487	200	✓		x	x		x		x	x		x	x	xx	x	x	
11	11	488	175	✓		x	x		x		x	x							
12	12	489	150	✓		xx	x		x		x	x		x	x	xx	x	x	
13	13	490	125	✓		x	x		x		x	x							
14	14	491	100	✓		x	x		x		x	x	x	x	x	xx	x	x	
15	15	492	75	✓		x	x		x		x	xxx	x						
16	16	493	50	✓		x	x		x		x	x	x	x	x	xx	x	x	
17	17	494	25	✓		x	x		xx		x	x	x	x	x	xx	x	x	
18	20	495	10	✓		x	x		x		x	x	xx	x	x	xx	x	x	
19	21	496	5	✓		x	x	x	x		x	x							
20	17	497	Max+10	✓	50							x	xx						
21	18	498	Max	✓	40							x	xx						
22	22	499	5	✓	5							x	xx						tonar, 017
23			5?																
24																			

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

Bottom Depth:	<u>3966</u>	m
Transmisso Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	<u>0518</u>	<u>2118</u>
Bottom	<u>0553</u>	<u>2153</u>
End	<u>0646</u>	<u>2246</u>

Positional Information
Lat: <u>49° 34.03</u> N
Lon: <u>138° 39.94</u> W

Bottom
Lat: <u>49° 33.96</u> N
Lon: <u>138° 39.86</u> W

End
Lat: <u>49° 33.88</u> N
Lon: <u>138° 40.13</u> W

Extra comments:
<u>1-16, 20, 21, 17, 18, 19, 22</u>

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P20 Event #: 63 Ship: TULLY UTC Date (dd mmm yyyy): 17 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ☒ Pressure	Filt	un-filt											
1		500	40		x	x											
2		501	25		x	x											
3		502	10		xx	xx											
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Profile type: TM PUMP
 ROS TRM X-Niskin other?
 Watchkeeper(s): KS/41

Bottom Depth: 3967 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>0845</u>	<u>0845</u>
Bottom		
End	<u>0917</u>	<u>0117</u>

Positional Information

Start	Lat: <u>49</u> ° <u>34.08</u> N
	Lon: <u>138</u> ° <u>40.33</u> W
	▼
Bottom	Lat: ° N
	Lon: ° W
	▼
End	Lat: <u>49</u> ° <u>34.22</u> N
	Lon: <u>138</u> ° <u>40.82</u> W

Extra comments:

③ Th-Po cast

Water Properties Group

Sampling Log

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

Cruise ID: 2012-01 Station: P20

Event #: 64

Ship: TULLY

UTC Date (dd mmm yyyy): 17 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Th	Po									
1		503	500	✓		x									
2		504	500	✓		x									
3		505	400	✓		x									
4		506	300	✓		x									
5		507	300	✓		x									
6		508	200	✓		x									
7		509	200	✓		x									
8		510	150	✓		x									
9		511	150	✓		x									
10		512	100	✓		x									
11		513	100	✓		x									
12		514	75	✓		x									
13		515	75	✓		x									
14		516	50	✓		x									
15		517	50	✓		x									
16		518	30	✓		x									
17		519	30	✓		x									
18		520	20	✓		x									
19		521	20	✓		x									
20		522	10	✓		x									
21		523	10	✓		x									
22		524	0	✓		x									
23		525	Max	✓	125	x									
24		526	Max	✓	40	x									

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): <u>H.M.</u>

Bottom Depth: <u>3967</u> m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	<u>0930</u>	<u>0130</u>
Bottom	<u>0941</u>	
End	<u>1006</u>	

Positional Information		
Start	Lat: <u>49</u> ° <u>34.01</u>	<u>N</u>
	Lon: <u>138</u> ° <u>40.15</u>	<u>W</u>

Bottom	Lat: <u>49</u> ° <u>34.04</u>	<u>N</u>
	Lon: <u>138</u> ° <u>40.14</u>	<u>W</u>

End	Lat: <u>49</u> ° <u>34.16</u>	<u>N</u>
	Lon: <u>138</u> ° <u>40.04</u>	<u>W</u>

Extra comments:

Water Properties Group

Rosette Log

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

Cruise ID: 2012-01 Station: P18 Event #: 65 Ship: TULLY UTC Date (dd|mmm|yyyy): 18 | 2 | 12

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken											Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	Chl a	PH HPLC							
1	527			MAX	☒ 50		✓		✓	✓							
2	528			5			✓	✓	✓	✓							
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s):

Bottom Depth: 2975 m

Transmisso Cleaned: (Y) / N

	Time	UTC	Local
Start		1126	0326
Bottom		1153	
End		1219	

Positional Information

Start Lat: 49 ° 25.94 N
Lon: 136 ° 40.05 W

Bottom Lat: 49 ° 25.88 N
Lon: 136 ° 40.17 W

End Lat: 49 ° 25.87 N
Lon: 136 ° 40.39 W

Oxygen Info For This Cast

Blank Value: mL · L⁻¹

Std Value: mL · L⁻¹

*Date Run: | |

Analyst:

* Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Rosette Log

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

Cruise ID: 2012-01 Station: P14 Event #: 66 Ship: Tully UTC Date (dd|mmm|yyyy): 18 Feb 2012

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken								Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	Chl a	NH ₄				
1	529			40	☒ Max		☒		☒	☒				
2	530			5	☒ 5		☒	☒	☒	☒				
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

Watchkeeper(s): SY

Bottom Depth: 2977 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0120	1720
Bottom	0144	1744
End	0209	1809

Positional Information

Start Lat: 49 ° 07.37 N
Lon: 132 ° 40.00 W

Bottom Lat: 49 ° 7.46 N
Lon: 132 ° 40.09 W

End Lat: 49 ° 7.46 N
Lon: 132 ° 40.17 W

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹

Std Value: _____ mL · L⁻¹

*Date Run: ____|____|____

Analyst: _____

* Oxygen blanks and standards should be run daily, if possible