

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: SIO3 Event #: 1 Ship: TULLY UTC Date (dd|mmm|yyyy): 3 | 2 | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken				CHL	TIM	Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal				Flask Serial #	Value mL • L ⁻¹	
1	1	1	Bot-10	✓ 217	✓	✓	✓						Did not close
2	2	2	200	✓ 199	✓						1123	0	1134 0
3	3	3	175	✓ 174			✓				1335	0	631 0
4	4	4	150	✓ 149							1106	0.072	1404 0.076
5	5	5	125	✓ 124							1319	0.083	1146 0.100
6	6	6	100	✓ 100	✓			✓			668	0.78	539 0.766
7	7	7	75	✓ 75		✓		✓			1414	4.326	1326 4.317
8	8	8	50	✓ 50	✓			✓			1496	4.345	1483 4.356
9	9	9	25	✓ 25				✓			76	4.867	371 4.904
10	10	10	10	✓ 10	✓			✓			579	5.097	1374 5.098
11	11	11	5		✓	✓	✓	✓			1206	5.108	1475 5.107
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													

Watchkeeper(s): SR + NN + MR

Bottom Depth: 227 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0538	
Bottom	0543	
End	0601	

Positional Information
Start
Lat: 48 ° 35.596 N
Lon: 123 ° 30.037 W

Bottom
Lat: 48 ° 35.605 N
Lon: 123 ° 30.032 W

End
Lat: 48 ° 35.623 N
Lon: 123 ° 30.084 W

Oxygen Info For This Cast
Blank Value: 0.004 mL • L⁻¹
Std Value: 0.856 mL • L⁻¹
*Date Run: 02 | 02 | 2010 local
Analyst: N2

* 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: 2010-01 Station: P2 Event #: 3 Ship: TULLY UTC Date (dd/mmm/yyyy): 3/2/2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken					Oxygen Titrations					Comments	
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DMS	DMS ₆	DMS _d	CHL	HPCC	Flask Serial #	Value mL • L ⁻¹		
1	1	13	100	✓		✓		✓	✓✓	✓✓	✓					
2	2	14	75	✓				✓			✓					
3	3	15	50	✓		✓					✓					
4	4	16	40	✓												
5	5	17	30	✓												
6	6	18	25	✓							✓	✓✓				
7	7	19	20	✓				✓	✓✓	✓✓						
8	8	20	15	✓												
9	9	21	10	✓								✓✓				
10	10	22	5	✓					✓✓	✓✓		✓✓				
11	11	23	0			✓		✓	✓✓	✓✓	✓					
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): N/HR

Bottom Depth: 118 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2323	1523
Bottom	2326	1526
End	2339	1539

Positional Information
Start
Lat: 48 ° 35.97 N
Lon: 126 ° 00.08 W

Bottom
Lat: 48 ° 35.99 N
Lon: 126 ° 00.09 W

End
Lat: 48 ° 36.06 N
Lon: 126 ° 00.08 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

② "DEEP" CAST

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P2 Event #: 5 Ship: TULLY UTC Date (dd|mmm|yyyy): 4 | 2 | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			DIL	PH					Flash ID	Oxy-1 Value mL/L	Oxygen Titrations		Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal									Flask Serial #	Value mL • L ⁻¹	
1	1	24	Bot-10	✓ 108	✓	✓	✓		✓					1386	6.277	1373	6.265	
2	2	25	100	✓			✓		✓					1134	6.274	631	6.280*	* check endpoint
3	3	26	75	✓					✓					1404	6.289	1146	6.299	
4	4	27	75	✓					✓					1477	6.291	1498	6.290	
5	5	28	50	✓										1326	6.301	1158	6.308	
6	6	29	25	✓					✓					1306	6.284	371	6.313	
7	7	30	10	✓										621	6.293	647	6.327*	* low res to endpoint
8	8	31	5	✓	✓ x4	✓	✓		✓	✓				1475	6.296	1361	6.301	
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Watchkeeper(s): NW / MR

Bottom Depth: 118 m
Transmisso Cleaned: Y / (N)

Time	UTC	Local
Start	0023	1623
Bottom	0026	1626
End	0035	1635

Positional Information
Start
Lat: 48 ° 36 08 N
Lon: 126 ° 00 05 W

Bottom
Lat: 48 ° 36 08 N
Lon: 126 ° 00 06 W

End
Lat: 48 ° 36 17 N
Lon: 126 ° 00 06 W

Oxygen Info For This Cast
Blank Value: 0.004 mL • L⁻¹
Std Value: 0.855 mL • L⁻¹
*Date Run: 05 | 02 | 2010
Analyst: NZ

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

① DMS Cast

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P4 Event #: 7 Ship: TULLY UTC Date (dd|mmm|yyyy): 04 | FEB | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	CHL DMS	Nut	Set CHL	HPCL	DMSD	DMSD	PH7b	SAL	Flask Serial #	Value mL · L ⁻¹	
1	1	33	200	✓	✓	✓			✓	✓					
2	2	34	175	✓	✓	✓			✓	✓					
3	3	35	100	✓	✓		✓		✓	✓					
4	4	36	75	✓	✓		✓								
5	5	37	50	✓	✓		✓								
6	6	38	40	✓	✓		✓								
7	7	39	30	✓	✓		✓								
8	8	40	25	✓	✓		✓	✓							
9	9	41	20	✓	✓		✓		✓	✓					
10	10	42	15	✓	✓		✓								
11	11	43	10	✓	✓		✓	✓							
12	12	44	5	✓	✓	✓	✓	✓	✓	✓	✓				
13	13	45	5	✓	✓							✓			ONAR
14	14	46	0	✓	✓	✓	✓		✓	✓					
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s): N2/MR

Bottom Depth: 1328 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>0420</u>	
Bottom	<u>0424</u>	
End	<u>0443</u>	

Positional Information
Start
Lat: 48 ° 39.02 N
Lon: 126 ° 40.29 W

Bottom
Lat: 48 ° 39.06 N
Lon: 126 ° 40.28 W

End
Lat: 48 ° 39.07 N
Lon: 126 ° 40.20 W

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

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

② Deep Cast

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P4 Event #: 10 Ship: TULLY UTC Date (dd|mmm|yyyy): 4 Feb 2010

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	47	1250	✓	✓	✓	✓	1223	0.446						SIO system	
2	2	48	1250	✓	✓	✓	✓	1445	0.453							
3	3	49	1000	✓	✓	✓	✓	1452	0.268							
4	4	50	800	✓	✓	✓	✓	1328	0.256							
5	5	51	600	✓	✓	✓	✓	1362	0.501							
6	6	52	400	✓	✓	✓	✓	1418	1.492					1433, 1475 dup		
7	7	53	300	✓	✓	✓	✓	1484	1.964							
8	8	54	250	✓	✓	✓	✓	1343	2.227							
9	9	55	200	✓	✓	✓	✓	1364	2.620							
10	10	56	175	✓	✓	✓	✓	1225	2.874							
11	11	57	150	✓	✓	✓	✓	1347	3.638							
12	12	58	125	✓	✓	✓	✓	1299	4.221							
13	13	59	100	✓	✓	✓	✓	425	4.965							
14	14	60	75	✓	✓	✓	✓	1216	6.077							
15	15	61	50	✓	✓	✓	✓	1499	6.297							
16	16	62	25	✓	✓	✓	✓	1443	6.323					1363, 6.328 dup		
17	17	63	10	✓	✓	✓	✓	1136	6.333							
18	18	64	5	✓	✓	✓	✓	1286	6.536							
19																
20																
21																
22																
23																
24																

Watchkeeper(s): SR KM

Bottom Depth: 1328 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1152	0357
Bottom	1213	0413
End	1257	0457

Positional Information
Start
Lat: 48 ° 39.03 N
Lon: 126 ° 39.98 W

Bottom
Lat: 48 ° 39.00 N
Lon: 126 ° 40.01 W

End
Lat: 48 ° 39.04 N
Lon: 126 ° 39.99 W

Oxygen Info For This Cast
Blank Value: _____ mL
Std Value: _____ mL
*Date Run: 03 FEB 2010
Analyst: N2

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

③ UBC DEEP CAST

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P-4 Event #: 11 Ship: TULLY UTC Date (dd|mmm|yyyy): 4 | 02 | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken				Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	UBC	Flask Serial #	Value mL · L ⁻¹	
1		65		✓ 1300		✓	✓	✓			
2		66		✓ 1300							
3		67		✓ 1300							
4		68		✓							
5		69		✓							
6		70		✓							
7		71		✓							
8		72		✓							
9		73		✓							
10		74		✓ 1300							
11		75		✓ 1300							
12		76		✓ 1300							
13		77		500		✓	✓	✓			
14		78		500							
15		79									
16		80									
17		81									
18		82									
19		83									
20		84									
21		85									
22		86									
23		87		500							
24		88		500							

Watchkeeper(s): SR / MR / OM

Bottom Depth: m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	14	06
Bottom	1457	0657
End	1529	0729

Positional Information
Start
Lat: 48 ° 39.02 N
Lon: 126 ° 40.00 W

Bottom
Lat: 48 ° 39.04 N
Lon: 126 ° 39.98 W

End
Lat: 48 ° 39.04 N
Lon: 126 ° 39.99 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

④ UBC Shallow

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P4 Event #: 12 Ship: _____ UTC Date (dd|mmm|yyyy): 41 Feb 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			Oxygen Titrations		Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	Flask Serial #	Value mL · L ⁻¹	
1			89	✓ 1000		✓	✓			Comp crash @ 100m
2			90	✓ 1000						
3			91	✓						
4			92	✓						
5			93	✓						
6			94	✓						
7			95	✓						
8			96	✓						
9			97	✓						
10			98	✓						
11			99	✓ 1000						
12			100	✓ 1000						
13			101	✓ 10		✓	✓	✓		
14			102	✓ 10						
15			103	✓ 10						
16			104	✓ 10						
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s): SR

Bottom Depth: 1328 m

Transmisso Cleaned: Y / N

	UTC	Local
Start	1639	
Bottom	1655	
End	1712	

Positional Information

Start Lat: 48 ° 38.98 N
Lon: 126 ° 40.12 W

Start

Bottom Lat: 48 ° 38.97 N
Lon: 126 ° 40.08 W

Bottom

End Lat: 48 ° 38.99 N
Lon: 126 ° 40.02 W

End

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

①② DMS CAST

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P12 Event #: 15 Ship: Tully UTC Date (dd|mmm|yyyy): 06|Feb|2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken							Oxygen Titrations		Comments		
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	CHL	HPLC	DMS ₁	DMS ₂	UBC	Flask Serial #		Value mL · L ⁻¹	
1	1	130	600	✓			60									} WENDY
2	2	131	600	✓												
3	3	132	200	✓		✓	✓				✓	✓				
4	4	133	175	✓		✓	✓				✓	✓				
5	5	134	100	✓		✓	✓		✓		✓	✓				
6	6	135	75	✓		✓	✓		✓							- bottom of MCL
7	7	136	50	✓		✓	✓		✓							
8	8	137	40	✓		✓	✓		✓							
9	9	138	30	✓		✓	✓		✓							
10	10	139	25	✓		✓	✓		✓	✓						
11	11	140	20	✓		✓	✓		✓		✓	✓				
12	12	141	15	✓		✓	✓		✓	✓						
13	13	142	10	✓		✓	✓		✓	✓						
14	14	143	10	✓			✓	✓					✓			} UBC
15	15	144	10	✓												
16	16	145	10	✓												
17	17	146	10	✓												
18	18	147	5	✓			60									} WENDY
19	19	148	5	✓												
20	20	149	5	✓				✓								ONAR
21	21	150	5	✓		✓	✓		✓	✓	✓	✓				NO WATER
22	22	151	0	✓		✓	✓		✓		✓	✓				
23																
24																

Watchkeeper(s): N²/DM/MIR

Bottom Depth: 3225 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>0023</u>	<u>1623</u>
Bottom	<u>0035</u>	<u>1635</u>
End	<u>0100</u>	<u>1700</u>

Positional Information

Start
Lat: 48° ° 58.37 N
Lon: 130° ° 40.21 W

Bottom
Lat: 48° ° 58.39 N
Lon: 130° ° 40.15 W

End
Lat: 48° ° 58.42 N
Lon: 130° ° 39.91 W

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹

Std Value: _____ mL · L⁻¹

*Date Run: 1 / 1 / 1

Analyst: _____

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

① DMS Cast

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P16 Event #: 23 Ship: TULLY UTC Date (dd|mmm|yyyy): 7 FEB 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy DMS	Nut	Sal	CHL	HPCL	DMSP L	DMSP D		Flask Serial #	Value mL · L ⁻¹	
1	1	203	200	✓											} NOT USED
2	2	204	200	✓											
3	3	205	200	✓											
4	4	206	200	✓	✓	✓				✓	✓				
5	5	207	175	✓	✓	✓✓				✓	✓				
6	6	208	100	✓	✓	✓		✓		✓	✓				
7	7	209	75	✓	✓	✓		✓							
8	8	210	50	✓	✓	✓		✓							
9	9	211	40	✓	✓	✓		✓							
10	10	212	30	✓	✓	✓		✓							
11	11	213	25	✓	✓	✓		✓	✓✓						
12	12	214	20	✓	✓✓	✓		✓		✓✓	✓✓				
13	13	215	15	✓	✓	✓		✓							
14	14	216	10	✓	✓	✓		✓	✓✓						
15	15	217	5	✓	✓	✓		✓	✓✓	✓	✓				
16	16	218	5	✓			✓								ONAR
17	17	219	0	✓	✓	✓		✓✓		✓	✓				
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s): N2/GC

Bottom Depth: 3619 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0502	2102
Bottom	0506	2106
End	0523	2123

Positional Information

Lat:	49 ° 16.94	N
Lon:	134 ° 39.97	W

Start

▼

Lat:	49 ° 16.94	N
Lon:	134 ° 40.01	W

Bottom

▼

Lat:	49 ° 17.03	N
Lon:	134 ° 39.68	W

End

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

② Ios Deep Cast

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P16

Event #: 25

Ship: TULLY

UTC Date (dd|mmm|yyyy): 07 | FEB | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DO	pH	DO2			Flask Serial #	Value mL · L ⁻¹	
1	1	220	Bot-10	✓	3600	✓	✓	✓	✓	✓					-likely not BOT-10
2	2	221	3500	✓			✓	✓	✓						
3	3	222	3500	✓	✓✓										
4	4	223	3000	✓						✓					
5	5	224	2500	✓	✓✓✓										
6	6	225	2000	✓						✓					
7	7	226	1500	✓		✓				✓					
8	8	227	1250	✓						✓					
9	9	228	1000	✓						✓					
10	10	229	800	✓						✓					
11	11	230	600	✓						✓					
12	12	231	400	✓						✓					
13	13	232	300	✓					✓	✓					
14	14	233	250	✓	✓✓										
15	15	234	200							✓					
16	16	235	175												
17	17	236	150						✓	✓					-spigot open
18	18	237	125												
19	19	238	100							✓					
20	20	239	75		✓✓✓				✓						
21	21	240	50							✓					
22	22	241	25							✓					-leaking
23	23	242	10							✓					
24	24	243	5		✓✓✓	✓	✓	✓	✓	✓					

Watchkeeper(s): N2

Bottom Depth: 3618 m

Transmisso Cleaned: (Y) / N

	UTC	Local
Start	<u>0639</u>	<u>2239</u>
Bottom	<u>0746</u>	<u>2346</u>
End	<u>0921</u>	

Positional Information

Start
Lat: 49 ° 17.10 N
Lon: 134 ° 39.73 W

Bottom
Lat: 49 ° 16.92 N
Lon: 134 ° 38.71 W

End
Lat: 49 ° 16.868 N
Lon: 134 ° 38.314 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

③ UBC Deep Cast

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P16 Event #: 29 Ship: Tully UTC Date (dd|mmm|yyyy): 7 Feb 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	Flask Serial #	Value mL · L ⁻¹	
1		244	2000			✓	✓			
2		245	2000							
3		246	2000							
4		247								
5		248								
6		249								
7		250								
8		251								
9		252								
10		253	2000							
11		254	2000							
12		255	2000							
13		256	1000			✓	✓			
14		257	1000							
15		258	1000							
16		259								
17		260								
18		261								
19		262								
20		263								
21		264								
22		265	1000							
23		266	1000							
24		267	1000							

Watchkeeper(s): SR

Bottom Depth: 3618 m

Transmisso Cleaned: Y / (N)

Time	UTC	Local
Start	<u>1207</u>	
Bottom	<u>1243</u>	
End	<u>1322</u>	

Positional Information

Lat:	<u>49</u> °	<u>17.05</u> N
Lon:	<u>134</u> °	<u>39.70</u> W

Start

Bottom

Lat: 49 ° 16.99 N
Lon: 134 ° 39.77 W

End

Lat: 49 ° 16.98 N
Lon: 134 ° 39.91 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

④ UBC Shallow Cast

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P16 Event #: 30 Ship: Tully UTC Date (dd|mmm|yyyy): 7 FEB 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	UBC					Flask Serial #	Value mL · L ⁻¹	
1		268	500	/		✓	✓	✓							
2		269	500	/											
3		270		/											
4		271		/											
5		272		/											
6		273		/											
7		274		/											
8		275		/											
9		276		/											
10		277		/											
11		278	500	/											
12		279	500	/											
13		280	10			✓	✓	✓							
14		281	10												
15		282	10												
16		283	10												
17															
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s): SR

Bottom Depth: 3618 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1423	
Bottom	1443	
End	1506	0706

Positional Information
Start
Lat: 49 ° 17.04 N
Lon: 134 ° 39.95 W

Bottom
Lat: 49 ° 17.00 N
Lon: 134 ° 40.07 W

End
Lat: 49 ° 16.93 N
Lon: 134 ° 40.24 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: 2010-01

Station: P18

Event #: 32

Ship: TULLY

UTC Date (dd|mmm|yyyy): 08 FEB 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	DIC	pH	chl			Flask Serial #	Value mL · L ⁻¹	
1	1	285	2000	✓			✓	✓✓							
2	2	286	2000	✓				✓✓							
3	3	287		✓				✓✓							
4	4	288		✓				✓✓							
5	5	289		✓				✓✓							
6	6	290		✓					✓✓						
7	7	291		✓					✓✓						
8	8	292		✓					✓✓						
9	9	293		✓					✓✓						
10	10	294		✓					✓✓						
11	11	295		✓											
12	12	296		✓											
13	13	297		✓											
14	14	298		✓											
15	15	299		✓											
16	16	300		✓											
17	17	301		✓											
18	18	302		✓											
19	19	303		✓											
20	20	304		✓											
21	21	305		✓											
22	22	306	2000	✓											
23	23	307	2000	✓											
24	24	308	5	✓		✓	✓			✓					- vent not tight, not used for barrel

Watchkeeper(s): N²/DM

Bottom Depth: 3812 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0207	1807
Bottom	0243	1843
End	0319	1919

Positional Information

Start
Lat: 49 ° 26.04 N
Lon: 136 ° 39.99 W

Bottom
Lat: 49 ° 26.34 N
Lon: 136 ° 39.64 W

End
Lat: 49 ° 26.32 N
Lon: 136 ° 39.02 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

① Ios Deep Cast

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P20

Event #: 34

Ship: Tully

UTC Date (dd|mmm|yyyy): 8 | FEB | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	PH	ORP			Flask Serial #	Value mL · L ⁻¹	
1		310	Bot-10	✓		✓	✓	✓	✓	✓					
2		311	3500	✓		✓	✓	✓	✓	✓					
3		312	3500	✓	✓	✓	✓	✓	✓	✓					
4		313	3000	✓		✓	✓	✓	✓	✓					
5		314	2500	✓		✓	✓	✓	✓	✓					
6		315	2000	✓		✓	✓	✓	✓	✓					
7		316	1500	✓		✓	✓	✓	✓	✓					
8		317	1250	✓		✓	✓	✓	✓	✓					
9		318	1000	✓		✓	✓	✓	✓	✓					
10		319	800	✓		✓	✓	✓	✓	✓					
11		320	600	✓		✓	✓	✓	✓	✓					
12		321	400	✓		✓	✓	✓	✓	✓					
13		322	300	✓		✓	✓	✓	✓	✓					
14		323	250	✓		✓	✓	✓	✓	✓					
15		324	200	✓		✓	✓	✓	✓	✓					
16		325	175	✓	✓	✓	✓	✓	✓	✓					
17		326	150	✓		✓	✓	✓	✓	✓					
18		327	125	✓		✓	✓	✓	✓	✓					
19		328	100	✓		✓	✓	✓	✓	✓					
20		329	75		✓	✓	✓	✓	✓	✓					
21		330	50			✓	✓	✓	✓	✓					
22		331	25			✓	✓	✓	✓	✓					
23		332	10			✓	✓	✓	✓	✓					
24		333	5		✓	✓	✓	✓	✓	✓					

Watchkeeper(s): SR

Bottom Depth: 3941 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1400	0600
Bottom	1519	0719
End	1651	0851

Positional Information

Start

Lat: 49 ° 33.99 N

Lon: 138 ° 39.95 W

Bottom

Lat: 49 ° 34.11 N

Lon: 138 ° 40.11 W

End

Lat: 49 ° 33.99 N

Lon: 138 ° 39.95 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

② DMS Cast + ONAr

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P20

Event #: 37

Ship: TULLY

UTC Date (dd|mmm|yyyy): 8 | FEB | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments	
			Target Pressure	Confirmed ✓ Pressure	Oxy DMS	Nut	Sal	CHL	HPLC	DMS ₁	DMS ₂	phyto	ONA	Flask Serial #	Value mL • L ⁻¹			
1	1	334	200	/				✓						✓				
2	7	335	200	/		✓	✓				✓	✓						
3	8	336	175	/		✓	✓✓				✓	✓						
4	2	337	150	/				✓						✓				
5	3	338	125	/				✓						✓				
6	4	339	100	/				✓						✓				
7	9	340	100	/		✓	✓		✓		✓	✓						
8	10	341	75	/		✓	✓		✓									
9	11	342	50	/		✓	✓		✓									
10	5	343	50	/				✓						✓				
11	12	344	40	/		✓	✓		✓									
12	13	345	30	/		✓	✓		✓									
13	14	346	25	/		✓	✓		✓	✓✓								
14	15	347	20	/		✓✓	✓		✓		✓✓	✓✓						
15	16	348	15	/		✓	✓		✓✓									
16	17	349	10	/		✓	✓		✓	✓✓								
17	6	350	10	/				✓						✓				
18	18	351	5	/		✓	✓		✓	✓✓	✓	✓	✓✓✓					
19	19	352	0	/		✓	✓		✓		✓	✓						
20																		
21																		
22																		
23																		
24																		

Watchkeeper(s): SR

Bottom Depth: 3941 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1906	1106
Bottom	1910	1110
End	1929	1129

Positional Information

Start
Lat: 49 ° 33.97 N
Lon: 138 ° 39.94 W

Start

Bottom
Lat: 49 ° 33.98 N
Lon: 138 ° 39.93 W

Bottom

End
Lat: 49 ° 34.99 N
Lon: 138 ° 39.00 W

End

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

③ Deep Ovar.

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P20 Event #: 39/40 Ship: TULLY UTC Date (dd|mmm|yyyy): 08 FEB 2010

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	353	4000	✓		✓									
2	7	354	2000	✓			✓				✓				
3	8	355	1700	✓			✓				✓				
4	9	356	1400	✓			✓				✓				
5	10	357	1000	✓			✓				✓				
6	2	358	1000	✓		✓									
7	3	359	600	✓		✓									
8	11	360	500	✓			✓				✓				
9	4	361	400	✓		✓									
10	5	362	250	✓		✓									
11	15	363	200	✓	vvvv										
12	12	364	150	✓			✓				✓				
13	16	365	100	✓	vvvv										
14	18	366	100	✓				✓							
15	19	367	50	✓				✓							
16	13	368	50	✓			✓				✓				
17	6	369	10	✓		✓									
18	20	370	10	✓				✓							
19	17	371	10	✓	vvvv										- bottle leaks not used
20	14	372	10	✓	vvvv										
21	21	373	5	✓	vvvv		✓				✓				
22															
23															
24															

Watchkeeper(s): N2

Bottom Depth: m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2210	
Bottom	2320	
End	0054	1754

Positional Information
Start
Lat: 49 ° 34 03 N
Lon: 138 ° 39 95 W

Bottom
Lat: 49 ° 34 01 N
Lon: 138 ° 39 91 W

End
Lat: 49 ° 33 88 N
Lon: 138 ° 39 98 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

④ Shallow ONA + Shallow UBC

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P20

Event #: 41

Ship: TULLY

UTC Date (dd|mmm|yyyy): 09 | FEB | 2010

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	374	20	✓											
2	2	375	10	✓											
3	5	376	10	✓											
4	6	377	10	✓											
5	7	378	10	✓											
6	8	379	10	✓											
7	3	380	5	✓											
8	4	381	0	✓											- breached surface
9	9	3813	0	✓											- extra bottle for ONA
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s): N2/GC

Bottom Depth: 3940 m

Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	0312	1912
Bottom	0313	1913
End	0319	1919

Positional Information

Start Lat: 49 ° 34.06 N
Lon: 138 ° 40.06 W

Start

Bottom

Lat: 49 ° 34.06 N
Lon: 138 ° 40.07 W

End

Lat: 49 ° 33.99 N
Lon: 138 ° 40.03 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

⑤ Deep UBC

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P20

Event #: 42

Ship: TULLY

UTC Date (dd|mmm|yyyy): 09 | FEB | 2010

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	382	2000	✓		✓	✓			TABLE DRIVEN
2	2	383	2000	✓						DOPS!
3	5	384	2000	✓						- spigot leaks
4	6	385		✓						
5	7	386		✓						
6	8	387		✓						
7	3	388		✓						
8	4	389		✓						
9	9	390		✓						
10	15	391		✓						
11	12	392		✓						
12	16	393		✓						
13	18	394		✓						
14	19	395		✓						
15	13	396		✓						
16	10	397	2000	✓						
17	20	398	2000	✓						
18	17	399	2000	✓						
19	14	400	1000	✓		✓	✓			- bottle no good!
20	21	401	1000	✓						
21	22	402	1000	✓						
22	23	403	1000	✓						
23	24	404	1000	✓						
24	11	405	1000	✓						

Watchkeeper(s): N²/GC/CS

Bottom Depth: 3940 m

Transmissio Cleaned: Y / N

Time	UTC	Local
Start	0412	
Bottom	0449	
End	0524	

Positional Information

Lat:	49	°	34.02	N
Lon:	138	°	40.06	W

Start

Bottom

Lat: 49 ° 34.00 N
Lon: 138 ° 40.11 W

End

Lat: 49 ° 34.10 N
Lon: 138 ° 39.80 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

⑥ Shallow UBC

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P20

Event #: 43

Ship: TULLY

UTC Date (dd|mmm|yyyy): 09 | FEB | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed ✓ Pressure	Ure	Nut	Sal								Flask Serial #	Value mL · L ⁻¹	
1	1	406	1000	✓	↑												
2	2	407	1000	✓													
3	3	408	1000	✓													
4	4	409	1	✓													
5	5	410	1	✓													
6	6	411	1	✓													
7	7	412	1000	✓													
8	8	413	1000	✓													
9	9	414	1000	✓													
10	10	415	500	✓	1000	✓	✓	✓									oops!
11	11	416	500	✓	500												
12	12	417	500	✓	↓												
13	13	418	1	✓													
14	14	419	1	✓													
15	15	420	1	✓													
16	16	421	1	✓													
17	17	422	1	✓													
18	18	423	1	✓													
19	19	424	1	✓													
20	20	425	1	✓													
21	21	426	1	✓													
22	22	427	500	✓													
23	23	428	500	✓													
24	24	429	500	✓													

Watchkeeper(s): N²/GC

Bottom Depth: 3940 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	<u>0630</u>	<u>2230</u>
Bottom	<u>0650</u>	<u>2250</u>
End	<u>0711</u>	<u>2311</u>

Positional Information
Start
Lat: 49 ° 34.04 N
Lon: 138 ° 40.16 W

Bottom
Lat: 49 ° 34.05 N
Lon: 138 ° 39.85 W

End
Lat: 49 ° 34.17 N
Lon: 138 ° 39.62 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

2010 Deep Cast

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P12 Event #: 48 Ship: TULLY UTC Date (dd|mmm|yyyy): 11 | FEB | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	pH	UBe			Flask Serial #	Value mL · L ⁻¹	
1	1	107	Bot 10	✓ 3260	✓	✓	✓	✓	✓	✓					
2	2	108	3000	✓				✓							
3	3	109	3000	✓			✓			✓					
4	4	110	2500	✓	✓				✓						
5	5	111	2000	✓						✓					
6	6	112	1500	✓						✓					
7	7	113	1250	✓					✓	✓					
8	8	114	1000	✓	✓					✓					
9	9	115	800	✓		✓				✓					
10	10	116	600	✓						✓					
11	11	117	400	✓						✓					
12	12	118	300	✓						✓					
13	13	119	250	✓					✓						
14	14	120	200	✓						✓					
15	15	121	175	✓	✓										
16	16	122	150	✓						✓					
17	17	123	125	✓											
18	18	124	100	✓						✓					
19	19	125	75	✓					✓						
20	20	126	50	✓						✓					
21	21	127	25	✓	✓					✓					
22	22	128	10	✓						✓					
23	23	129	5	✓	✓	✓	✓	✓	✓						
24	24	130	10	✓											

Watchkeeper(s): N2/

Bottom Depth: 3232 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>0052</u>	<u>1652</u>
Bottom	<u>0149</u>	<u>1749</u>
End		

Positional Information

Start	Lat: <u>48</u> ° <u>58.14</u> N
	Lon: <u>130</u> ° <u>40.08</u> W

Bottom

Lat: <u>48</u> ° <u>58.10</u> N
Lon: <u>130</u> ° <u>40.00</u> W

End

Lat: ° N
Lon: ° 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

③ WBC Deep Cast

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01 Station: P12 Event #: 50 Ship: Tully UTC Date (dd|mmm|yyyy): 11 | FEB | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken				Oxygen Titrations		Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	WBC	Flask Serial #	Value mL · L ⁻¹	
1	1	152	2000	✓		✓	✓	✓			
2	2	153	2000	✓							
3	3	154		✓							
4	4	155		✓							
5	5	156		✓							
6	6	157		✓							
7	7	158		✓							
8	8	159		✓							
9	9	160		✓							
10	10	161		✓							
11	11	162		✓							
12	12	163		✓							
13	13	164		✓							
14	14	165		✓							
15	15	166		✓							
16	16	167		✓							
17	17	168	2000	✓							
18	18	169	2000	✓							
19	19	170	1000	✓		✓	✓	✓			
20	20	171	1000	✓							
21	21	172		✓							
22	22	173		✓							
23	23	174	1000	✓							
24	24	175	1000	✓							

Watchkeeper(s): N2/GC

Bottom Depth: 3232 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0433	2033
Bottom	0509	2109
End	0547	

Positional Information
Start
Lat: 48 ° 58.32 N
Lon: 130 ° 39.96 W

Bottom
Lat: 48 ° 58.49 N
Lon: 130 ° 39.14 W

End
Lat: 48 ° 58.82 N
Lon: 130 ° 38.25 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

- likely leaked, vent
hard to tighten

④ UBC Shallow Cast

Water Properties Group

Rosette Log

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

Cruise ID: 2010-01

Station: P12

Event #: 51

Ship: TULLY

UTC Date (dd|mmm|yyyy): 11 FEB 2010

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	176	1000	✓							
2	2	177	1000	✓							
3	3	178		✓							
4	4	179		✓							
5	5	180		✓							
6	6	181		✓							
7	7	182		✓							
8	8	183	1000	✓							
9	9	184	1000	✓							
10	10	185	500	✓		✓	✓	✓			
11	11	186	500	✓							
12	12	187	500	✓							
13	13	188		✓							
14	14	189		✓							
15	15	190		✓							
16	16	191		✓							
17	17	192		✓							
18	18	193		✓							
19	19	194		✓							
20	20	195		✓							
21	21	196		✓							
22	22	197	500	✓							
23	23	198	500	✓							
24	24	199	500								FORGOT TO FIRE

Watchkeeper(s): N²/PT

Bottom Depth: 3232 m

Transmisso Cleaned: Y/N

Time	UTC	Local
Start	0646	2246
Bottom	0705	2305
End	0728	2328

Positional Information

Start

Lat: 48 ° 58.31 N

Lon: 130 ° 39.85 W

Bottom

Lat: 48 ° 58.72 N

Lon: 130 ° 39.46 W

End

Lat: 48 ° 58.98 N

Lon: 130 ° 39.12 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: 2010-01 Station: P8 Event #: 55 Ship: TULLY UTC Date (dd|mmm|yyyy): 11 FEB 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	Chl a	HP-L	UPL			Flask Serial #	Value mL · L ⁻¹	
1	1	432	2000	✓	✓✓	✓	✓✓			✓					
2	2	433	1500	✓	✓	✓	✓			✓					
3	3	434	1500	✓	✓✓	✓	✓								
4	4	435	1250	✓	✓	✓	✓			✓					
5	5	436	1000	✓	✓	✓	✓			✓					
6	6	437	800	✓	✓	✓	✓			✓					
7	7	438	600	✓	✓	✓	✓								
8	8	439	600	✓	✓	✓	✓								
9	9	440	600	✓	✓	✓	✓			✓					
10	10	441	400	✓	✓	✓	✓			✓					
11	11	442	300	✓	✓	✓✓	✓			✓					
12	12	443	250	✓	✓✓	✓	✓								
13	13	444	200	✓	✓	✓	✓			✓					
14	14	445	175	✓	✓	✓	✓								
15	15	446	150	✓	✓	✓	✓			✓					
16	16	447	125	✓	✓	✓	✓								
17	17	448	100	✓	✓	✓	✓	✓		✓					
18	18	449	75	✓	✓✓	✓	✓	✓							
19	19	450	50	✓	✓	✓	✓	✓		✓					
20	20	451	25	✓	✓	✓	✓	✓✓	✓✓	✓					
21	21	452	10	✓	✓	✓	✓	✓	✓✓	✓					
22	22	453	5	✓	✓	✓	✓	✓	✓✓						
23															
24															

Watchkeeper(s): N2/DM

Bottom Depth: 2518 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2134	1334
Bottom	2209	
End	2302	

Positional Information
Start
Lat: 48 ° 49.18 N
Lon: 128 ° 39.94 W

Bottom
Lat: 48 ° 49.30 N
Lon: 128 ° 39.30 W

End
Lat: 48 ° 49.34 N
Lon: 128 ° 38.75 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: 2010-01 Station: LC6 Event #: 64 Ship: Tully UTC Date (dd|mmm|yyyy): 13 FEB 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken							Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	HPLC	CHL			Flask Serial #	Value mL · L ⁻¹	
1	1	476	Bot-10	/	/	/								
2	2	477	75	/	/	/								
3	3	478	50	/	/	/								
4	4	479	30	/	/	/								
5	5	480	20	/	/	/			✓✓					
6	6	481	10	/	/	✓			✓					
7	7	482	5	/	✓✓	✓		✓✓	✓					
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

Watchkeeper(s): SR

Bottom Depth: 95 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	1002	0202
Bottom	1004	0204
End	1014	0214

Positional Information
Start
Lat: 48 ° 36.48 N
Lon: 125 ° 54.00 W

Bottom
Lat: 48 ° 36.47 N
Lon: 125 ° 54.00 W

End
Lat: 48 ° 36.48 N
Lon: 125 ° 53.97 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