

Water Properties Group

Rosette Log

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

STATION NAME ALL WRONG
ON FIRST SAMPLE

Cruise ID: 2010-15 Station: L801 Event #: 02 Ship: TULLY UTC Date (dd|mmm|yyyy): 4 | 9 | 10

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	1	1477	3.576	B-5	☒ 32	✓	✓							2010-06-27?
2	2	3028	3.853	20	☒	✓	✓		✓	✓				
3	3	1316	4.700	10	☒	✓	✓		✓	✓				
4	4	1313	5.194	5		✓	✓		✓	✓				
5														
6														
7														
8														
9														
10														
11														
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14														
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16														
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18														
19														
20														
21														
22														
23														
24														

Watchkeeper(s): H.M.

Bottom Depth: 38 m

Transmisso Cleaned: ☒ Y / ☐ N

	UTC	Local
Start	0629	2329
Bottom	0631	2331
End	0636	2336

Positional Information

Start

Lat: 48 ° 40.32 N

Lon: 124 ° 59.25 W

Bottom

Lat: 48 ° 40.35 N

Lon: 124 ° 59.25 W

End

Lat: 48 ° 40.35 N

Lon: 124 ° 59.32 W

Oxygen Info For This Cast

Blank Value: 0.0027 mL · L⁻¹

Std Value: 0.7117 mL · L⁻¹

*Date Run: 3 | 9 | 10

Analyst: H.M.

* 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: 2010-15 Station: L302 Event #: 03 Ship: TULLY UTC Date (dd|mmm|yyyy): 4 | SEP | 10

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	5	3108	3.300	B-105	☒ 50	☒	☒									
2	6	3126	3.932	30	☒	☒	☒									
3	7	3180	4.306	20	☒	☒	☒		☒	☒						} NUTS NOT SAMPLED: OOPS!
4	8	2073	4.779	10	☒	☒	☒		☒	☒						
5	9	3124	5.073	5	☒	☒	☒	☒	☒	☒						
6																
7																
8																
3	7	2019	4.289													
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): MR / ML

Bottom Depth: ~55 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0714	0014
Bottom	0717	0017
End	0723	0023

Positional Information

Start
 Lat: 48 ° 39 00 N
 Lon: 125 ° 02 38 W

Bottom
 Lat: 48 ° 38 98 N
 Lon: 125 ° 02 45 W

End
 Lat: 48 ° 39 00 N
 Lon: 125 ° 02 44 W

Oxygen Info For This Cast

Blank Value: 0.0027 mL · L⁻¹
 Std Value: 0.7117 mL · L⁻¹
 *Date Run: 3 | 9 | 10
 Analyst: HM

* 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: 2010-15 Station: 2304 Event #: 5 Ship: TULLY UTC Date (dd|mmm|yyyy): 4 | SEP | 2010

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	10	2082	1.524	Bot-5	☒ 105	✓	✓									
2	11	2055	1.861	75	☒	✓	✓									
3	12	3084	2.149	50	☒	✓	✓									
4	13	1498	3.770	30	☒	✓	✓									
5	14	1174	4.083	20	☒	✓	✓		✓	✓						
6	15	1367	5.408	10	☒	✓	✓		✓	✓						
7	16	657	5.528	5	☒	✓	✓	✓	✓	✓						
8																
9																
10																
511	14	622	4.091													
12																
13																
14																
15																
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20																
21																
22																
23																
24																

Watchkeeper(s): MR

Bottom Depth: 2 ~ 105 m

Transmisso Cleaned: ☒ Y ☐ N

	UTC	Local
Time		
Start	0830	0130
Bottom	0833	0133
End	0843	0143

Positional Information

Start

Lat: 48 ° 35.77 N

Lon: 125 ° 08.82 W

Bottom

Lat: 48 ° 35.81 N

Lon: 125 ° 08.84 W

End

Lat: 48 ° 35.72 N

Lon: 125 ° 08.98 W

Oxygen Info For This Cast

Blank Value: 0.0027 mL · L⁻¹

Std Value: 0.7117 mL · L⁻¹

*Date Run: 3.19.10

Analyst: H.M.

* 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: 2010-15 Station: L306 Event #: 9 Ship: TULLY UTC Date (dd|mmm|yyyy): 4 | SEP | 2010

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	17	1490	1.407	But-5	✓ 107	✓	✓									
2	18	1144	1.467	25	✓	✓✓	✓						oxy	DUP	3121	1.433
3	19	1407	1.882	50	✓	✓	✓									
4	20	1321	2.924	30	✓	✓	✓									
5	21	1481	4.383	20	✓	✓	✓		✓✓	✓✓						
6	22	2084	6.013	10	✓	✓	✓		✓✓	✓✓						
7	23	1476	6.019	5	✓	✓	✓✓	✓	✓✓	✓✓						
8																
9																
10																
11																
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22																
23																
24																

Watchkeeper(s): MR

Bottom Depth: 114 m
Transmisso Cleaned: Y N

	UTC	Local
Time Start	1145	0445
Bottom	1148	0448
End	1157	0457

Positional Information
Start Lat: 48 ° 32.19 N
Lon: 125 ° 15.50 W

Bottom Lat: 48 ° 32.22 N
Lon: 125 ° 15.47 W

End Lat: 48 ° 32.24 N
Lon: 125 ° 15.44 W

Oxygen Info For This Cast
Blank Value: 0.0027 mL · L⁻¹
Std Value: 0.7117 mL · L⁻¹
*Date Run: 3.1.9.10
Analyst: H.M.

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

oxy o2mbo box

THION = 0.14186

Water Properties Group

Rosette Log

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

Cruise ID: 2010-15 Station: L308 Event #: 23 Ship: TULLY UTC Date (dd|mmm|yyyy): 5 | 9 | 10

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	24	1490	1.009	Bot-5	☒	123	✓									
2	25	1144	1.002	125	☒	123	✓									
3	26	3181	1.011	100	☒		✓							Dup Oxy	1407	1.673
4	27	1321	1.675	75	☒		✓									Dup taken from bottle 4?
5	28	1481	2.093	50	☒											
6	29	2084	3.152	30	☒											
7	30	1476	4.900	20	☒				✓	✓						
8	31	1365	5.945	10	☒				✓	✓						
9	32	1180	5.965	5	☒			✓	✓	✓						
10																
11																
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24																

Watchkeeper(s): H.M.

Bottom Depth: 133 m

Transmisso Cleaned: ☒ Y ☐ N

	UTC	Local
Start	1939	1239
Bottom	1942	1242
End	1953	1253

Positional Information

Start Lat: 40 ° 25.22 N
Lon: 125 ° 28.42 W

Bottom Lat: 48 ° 25.19 N
Lon: 125 ° 28.39 W

End Lat: 48 ° 25.23 N
Lon: 125 ° 28.41 W

Oxygen Info For This Cast

Blank Value: 0.0027 mL · L⁻¹
Std Value: 0.7117 mL · L⁻¹
*Date Run: 3 | 9 | 10
Analyst: H.M.

* 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: 2010-15 Station: 2809 Event #: 25 Ship: TULLY UTC Date (dd|mmm|yyyy): 4⁵ | SEP | 2010

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	33	1387	1.336	Bot-5	☒ 142	☒	☒									
2	34	1406	1.210	125	☒	☒	☒									
3	35	2033	1.398	100	☒	☒	☒									
4	36	638	1.478	75	☒	☒	☒									
5	37	1411	2.359	50	☒	☒	☒									1464 - 2.361
6	38	1123	3.030	30	☒	☒	☒									
7	39	2065	4.101	20	☒	☒			☒	☒						
8	40	3207	6.023	10	☒	☒			☒	☒						
9	41	2069	6.071	5	☒	☒	☒		☒	☒						
10																
11																
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23																
24																

Watchkeeper(s): H.M.

Bottom Depth: 151 m

Transmisso Cleaned: (Y) / N

	UTC	Local
Time Start	21 05	1405
Bottom	2108	1408
End	2119	1419

Positional Information
 Start Lat: 48 ° 22.01 N
 Lon: 125 ° 34.67 W

Bottom Lat: 48 ° 21.96 N
 Lon: 125 ° 34.72 W

End Lat: 48 ° 21.96 N
 Lon: 125 ° 34.73 W

Oxygen Info For This Cast
 Blank Value: 0.0027 mL · L⁻¹
 Std Value: 0.7117 mL · L⁻¹
 *Date Run: 319110
 Analyst: H.M.

* 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: 2010-15 Station: LB 11 Event #: 27 Ship: TULLY UTC Date (dd|mmm|yyyy): 5 | 9 | 10

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	42	1477	1.632	B-10	☒	198	☒									
2	43	3028	2.058	175	☒											
3	44	1316	2.406	150	☒											
4	45	1313	2.725	125	☒		☒									
5	46	3069	2.262	100	☒											
6	47	3108	2.569	75	☒											
7	48	3126	2.891	50	☒											
8	49	3180	3.572	30	☒											2019-3.576
9	50	2073	4.028	20	☒				vv	vv						
10	51	3124	5.891	10	☒				vv	vv						
11	52	3043	5.922	5	☒				vv	vv						
12																
13																
14																
15																
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19																
20																
21																
22																
23																
24																

Watchkeeper(s): H.M.

Bottom Depth: 207 m

Transmisso Cleaned: (Y) / N

	UTC	Local
Time Start	22:58	15:58
Bottom	23:03	16:03
End	23:18	16:18

Positional Information

Start Lat: 48 ° 15.15 N
Lon: 125 ° 47.69 W

Bottom Lat: 48 ° 15.13 N
Lon: 125 ° 47.69 W

End Lat: 48 ° 15.10 N
Lon: 125 ° 47.71 W

Oxygen Info For This Cast

Blank Value: 0.0027 mL · L⁻¹

Std Value: 0.7117 mL · L⁻¹

*Date Run: 3 | 9 | 10

Analyst: H.M.

* 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: 2010-15 Station: LB 12 Event #: 29 Ship: TULLY UTC Date (dd|mmm|yyyy): 6 | 9 | 10

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	LOW			
1	53	94	0.649	B-10	✓ 560	✓	✓✓							#1 BAD SEAL (TOP)
2	54	1314	0.675	400	✓		✓✓							Pumps NOT ON UNTIL 130 m on DOWNCAST
3	55	1247	0.845	300	✓									
4	56	3016	1.313	250*	✓									
5	57	1300	1.669	200	✓									
6	58	1473	2.419	175	✓									
7	59	1307	2.479	150	✓									
8	60	1313	3.229	125	✓									
9	61	745	4.248	100	✓	✓								1298 - 4.262
10	62	1392	4.713	75	✓									
11	63	1395	3.106	50	✓									
12	64	1397	3.468	30	✓									
13	65	1408	3.915	20	✓				✓✓	✓✓				
14	66	1421	5.504	10	✓			✓	✓✓	✓✓				
15	67	1408	5.913	5	✓	✓	✓		✓✓	✓✓				
16														
17	68			250	✓						✓			
18	69			250	✓						✓			
19														
20														
21														
22														
23														
24														

Watchkeeper(s): H.M.

Bottom Depth: 507 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0037	1737
Bottom	0046	1746
End	0109	1809

Positional Information

Start

Lat: 48 ° 12.88 N

Lon: 125 ° 51.89 W

Bottom

Lat: 48 ° 12.88 N

Lon: 125 ° 51.86 W

End

Lat: 48 ° 12.86 N

Lon: 125 ° 51.99 W

Oxygen Info For This Cast

Blank Value: 0.0027 mL · L⁻¹

Std Value: 0.7117 mL · L⁻¹

*Date Run: 3 | 9 | 10

Analyst: H.M.

* 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: 2010-15 Station: LB 14 Event #: 31 Ship: TOLLY UTC Date (dd|mmm|yyyy): 6 | 9 | 10

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	3209	0.393	810	☒	1172	☒	☒								
71	2	3184	0.268	1000	☒		☒									
72	3	1317	0.262	750	☒		☒	☒								
73	4	3191	0.598	500	☒											
74	5	3166	0.841	400	☒		☒									
75	6	471	1.236	300	☒		☒									1478-1.236
76	7	2064	1.553	250	☒											
77	8	1338	1.799	200	☒											BAD SEAL
78	9	1497	1.894	175	☒											
79	10	3038	2.439	150	☒											
80	11	1401	3.048	125	☒											
81	12	3174	3.882	100	☒											
82	13	2032	5.395	75	☒											
83	14	3098	6.138	50	☒											
84	15	3052	5.993	30	☒											
85	16	3109	6.292	20	☒				☒	☒						
86	17	1492	6.343	10	☒				☒	☒						
87	18	3057	6.354	5	☒		☒	☒	☒	☒						
	19															
	20															
	21															
	22															
	23															
	24															

Watchkeeper(s): H.M.

Bottom Depth: 1159 m

Transmisso Cleaned: ☒ Y ☐ N

	UTC	Local
Start	0254	1954
Bottom	0315	2015
End	0357	2057

Positional Information

Start

Lat: 48 ° 08.46 N

Lon: 125 ° 59.91 W

Bottom

Lat: 48 ° 09.49 N

Lon: 125 ° 59.95 W

End

Lat: 48 ° 08.61 N

Lon: 125 ° 59.90 W

Oxygen Info For This Cast

Blank Value: 0.0027 mL · L⁻¹

Std Value: 0.7117 mL · L⁻¹

*Date Run: 31 9 10

Analyst: H.M.

* 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: 2010-15 Station: LC11 Event #: 37 Ship: TULLY UTC Date (dd|mmm|yyyy): 6 | SEP | 2010

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	89	1201	0.700	3000	☒	✓	✓									
2	90	1459	0.432	1250	☒	✓	✓	✓								
3	91	1327	0.265	1000	☒	✓	✓	✓								
4	92	570	0.213	750	☒	✓	✓					oxy	DUP	1414	0.220	
5	93	2060	0.728	500	☒	✓	✓									3051 Broke
6	94	2056	1.390	400	☒	✓	✓									
7	95	1326	2.220	300	☒	✓	✓									
8	96	3116	2.708	250	☒	✓	✓									
9	97	612	3.256	200	☒	✓	✓									
10	98	1335	3.246	175	☒	✓	✓									
11	99	3178	2.984	150	☒	✓	✓									
12	100	2000	3.711	125	☒	✓	✓									
13	101	3135	4.884	100	☒	✓	✓									
14	102	1460	5.398	75	☒	✓	✓									
15	103	3194	5.871	50	☒	✓	✓									
16	104	2075	6.214	30	☒	✓	✓					oxy	DUP	3164	6.231	
17	105	3107	6.093	20	☒	✓	✓		✓	✓						
18	106	3118	5.926	10	☒	✓	✓		✓	✓						
19	107	3061	—	5	☒	✓	✓	✓	✓	✓						SPILED SAMPLE
20																
21																
22																
23																
24																

Watchkeeper(s): MR

Bottom Depth: ~1448 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1558	0858
Bottom	1626	0926
End	1710	1010

Positional Information

Start Lat: 48° 18.81 N
Lon: 126° 26.72 W

Bottom Lat: 48° 18.96 N
Lon: 126° 26.69 W

End Lat: 48° 18.92 N
Lon: 126° 26.72 W

Oxygen Info For This Cast

Blank Value: 0.0027 mL · L⁻¹
Std Value: 0.7117 mL · L⁻¹
*Date Run: 3.19.10
Analyst: H.M.

* 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: 2010-15 Station: LC09 Event #: 39 Ship: TULLY UTC Date (dd|mmm|yyyy): 06 | 09 | 2010

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	108	1490	0.446	Bot 10	☒	601	☒	☒								
2	109	1144	0.625	500	☒		☒	☒	☒							
3	110	3161	0.917	400	☒		☒	☒								
4	111	1407	1.159	300	☒		☒									
5	112	1321	1.486	250*	☒		☒									
6	113	1481	2.093	200	☒		☒									
7	114	2084	3.007	175	☒		☒									
8	115	1476	3.202	150*	☒		☒								1365 - 3.214	
9	116	1180	4.190	125	☒		☒									
10	117	2086	4.435	100	☒		☒									
11	118	1387	4.722	75*	☒		☒									
12	119	1406	5.689	50	☒		☒									
13	120	2053	5.656	30*	☒		☒									UNDER TITRATED
14	121	638	6.104	20*	☒		☒		☒	☒						(STILL YELLOW)
15	122	1411	6.270	10	☒		☒		☒	☒						
16	123	1464	6.265	5*	☒		☒	☒	☒	☒						
17	124			250	☒											
18	125			150	☒											
19	126			75	☒											
20	127			25	☒											
21	128			15	☒											
22	129			5	☒											
23																
24																

Watchkeeper(s): DY

Bottom Depth: 610 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1953	1253
Bottom	2004	1304
End	2034	1334

Positional Information

Start Lat: 48 ° 25.96 N
Lon: 126 ° 13.68 W

Bottom Lat: 48 ° 26.09 N
Lon: 126 ° 13.69 W

End Lat: 48 ° 25.94 N
Lon: 126 ° 13.68 W

Oxygen Info For This Cast

Blank Value: 0.0027 mL * L⁻¹
Std Value: 0.7117 mL * L⁻¹
*Date Run: 3.9.10
Analyst: H.M

*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: 2010-15

Station: LC08

Event #: 42

Ship: Tully

UTC Date (dd|mmm|yyyy): 06 | 09 | 2010

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	DIC					
1	130	1477	1.650	B-10	✓	188	✓	✓			✓					
2	131	3028	1.825	175	✓		✓									
3	132	1316	2.177	150	✓		✓				✓					1313- 2.171
4	133	3069	2.944	125	✓											
5	134	3108	3.373	100	✓											
6	135	3126	4.235	75	✓											
7	136	3180	3.191	50	✓											
8	137	2019	3.335	30	✓											
9	138	2073	5.897	20	✓				✓	✓						
10	139	3124	6.269	10	✓				✓	✓						
11	140	3043	6.370	5	✓		✓	✓	✓	✓	✓					
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): dy

Bottom Depth: 197 m

Transmisso Cleaned: Y / N

	UTC	Local
Time Start	2324	1624
Bottom	2328	1628
End	2342	1642

Positional Information

Start Lat: 48 ° 29 44 N
Lon: 126 ° 7.06 W

Start

Bottom Lat: 48 ° 29.40 N
Lon: 126 ° 7.08 W

Bottom

End Lat: 48 ° 29.43 N
Lon: 126 ° 7.06 W

End

Oxygen Info For This Cast

Blank Value: 0.0037 mL · L⁻¹
Std Value: 0.7103 mL · L⁻¹
*Date Run: 7.9.10
Analyst: H.M.

* 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: 2010-14 Station: LC06 Event #: 45 Ship: TULLY UTC Date (dd|mmm|yyyy): 7|9|10

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	chl	NH4	ΔIC			Flask Serial #	Value mL · L ⁻¹	
1		141	B-10	✓ 81	✓	✓				✓			1174	1.803	
2		142	75	✓	✓	✓				✓			1498	1.968	
3		143	50	✓	✓	✓				✓			3084	4.397	
4		144	30	✓	✓	✓				✓			2055	4.733	2082 - 4.740
5		145	20	✓	✓	✓		✓✓	✓✓	✓			1367	5.361	
6		146	10	✓	✓	✓		✓✓	✓✓	✓			657	6.173	
7		147	5	✓	✓	✓		✓✓	✓✓	✓			668	6.306	
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s): H.M.

Bottom Depth: 93 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0137	1837
Bottom	0140	1840
End	0148	1848

Positional Information
Start Lat: 48 ° 36.44 N
Lon: 125 ° 54.06 W

Bottom Lat: 48 ° 36.45 N
Lon: 125 ° 54.05 W

End Lat: 48 ° 36.45 N
Lon: 125 ° 54.02 W

Oxygen Info For This Cast
Blank Value: 0.0037 mL · L⁻¹
Std Value: 0.7103 mL · L⁻¹
*Date Run: 7|9|10
Analyst: H.M.

* 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: 2010-15 Station: LC 04 Event #: 48 Ship: Tully UTC Date (dd|mmm|yyyy): 7 | 09 | 10

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	148	1490	2.090	B-10	☒ 157	☒	☒									
2	149	1144	2.247	125	☒	☒	☒									
3	150	3181	2.580	100 *	☒	☒	☒									
4	151	1407	2.919	75 *	☒	☒	☒									1180-2:930
5	152	1321	3.236	50 *	☒	☒	☒									
6	153	1481	3.453	30	☒	☒	☒									
7	154	2084	3.550	20	☒	☒	☒	☒	☒	☒						
8	155	1476	5.246	10	☒	☒	☒	☒	☒	☒						
9	156	1365	5.846	5 *	☒	☒	☒	☒	☒	☒						
10																
11	157			100	☒											
12	158			75	☒											
13	159			50	☒											
14	160			25	☒											
15	161			10	☒											
16	162			5	☒											
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): A.M.

Bottom Depth: 167 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0337	2037
Bottom	0340	2040
End	0353	2053

Positional Information
 Lat: 48 ° 43.40 N
 Lon: 125 ° 40.85 W

Start

▼
 Lat: 48 ° 43.42 N
 Lon: 125 ° 40.87 W

Bottom

▼
 Lat: 48 ° 43.46 N
 Lon: 125 ° 40.90 W

End

Oxygen Info For This Cast
 Blank Value: 0.0037 mL · L⁻¹
 Std Value: 0.7103 mL · L⁻¹
 *Date Run: 7 | 9 | 10
 Analyst: A.M.

* 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: 2010-15 Station: LC02 Event #: 51 Ship: TULLY UTC Date (dd|mmm|yyyy): 7 | 9 | 10

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	Dic					
1	163	1387	2.268	B-10	☒ 101	✓	✓				✓					
2	164	1406	2.661	75	☒	✓	✓				✓					(175 in. FILG)
3	165	2033	2.934	50	☒	✓	✓				✓					
4	166	638	3.593	30	☒	✓	✓				✓					
5	167	1411	3.977	20	☒	✓	✓		✓	✓	✓					1464-3.961
6	168	1123	5.050	10	☒	✓	✓		✓	✓	✓					
7	169	2065	5.697	5		✓	✓		✓	✓	✓					
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): H.M.

Bottom Depth: 112 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0550	2250
Bottom	0552	2252
End	0600	2300

Positional Information

Start

Lat: 48 ° 48.68 N

Lon: 125 ° 31.04 W

Bottom

Lat: 48 ° 48.68 N

Lon: 125 ° 31.02 W

End

Lat: 48 ° 48.68 N

Lon: 125 ° 30.95 W

Oxygen Info For This Cast

Blank Value: 0.0037 mL · L⁻¹

Std Value: 0.7103 mL · L⁻¹

*Date Run: 7 | 9 | 10

Analyst: H.M.

* 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: 2010-15 Station: LCO1 Event #: 52 Ship: TULLY UTC Date (dd|mmm|yyyy): 7 | 9 | 16

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	170	3209	2.304	B-10	☒ 87	✓	✓									
2	171	3184	3.114	50	☒	✓	✓									
3	172	1317	3.803	30	☒	✓										3191-3.807
4	173	3166	4.391	20	☒				✓✓	✓✓						
5	174	471	5.521	10	☒				✓✓	✓✓						
6	175	1470	5.658	5	☒	↓	↓		✓✓	✓✓						
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): H.M.

Bottom Depth: 99 m
Transmisso Cleaned: ☒ N

Time	UTC	Local
Start	0634	2334
Bottom	06 37	2337
End	06 43	2343

Positional Information
Start
Lat: 48 ° 50.41 N
Lon: 125 ° 27.81 W

Bottom
Lat: 48 ° 50.42 N
Lon: 125 ° 27.79 W

End
Lat: 48 ° 50.44 N
Lon: 125 ° 27.73 W

Oxygen Info For This Cast
Blank Value: 0.0037 mL · L⁻¹
Std Value: 0.7103 mL · L⁻¹
*Date Run: 7 | 9 | 10
Analyst: H.M.

* 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: 2010-15 Station: LD 6 Event #: 60 Ship: TULLY UTC Date (dd|mmm|yyyy): 7 | SEP | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	chl	nut						Flask Serial #	Value mL · L ⁻¹	
1		176	Bot-10	✓	125	✓	✓								1338	1.152	
2		177	100	✓											1497	3.788	
3		178	75	✓											3038	4.036	
4		179	50	✓											1401	4.059	
5		180	30	✓											3174	5.423	
6		181	20	✓				✓	✓						2032	6.023	
7		182	10	✓				✓	✓						3098	6.321	
8		183	5	✓		✓	✓	✓	✓						3052	6.348	3109 - 6.347
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s): M.R.

Bottom Depth: 134 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	13 15	06 15
Bottom	13 18	06 18
End	13 28	06 28

Positional Information
Start
Lat: 48 ° 46.22 N
Lon: 126 ° 10.24 W

Bottom
Lat: 48 ° 46.26 N
Lon: 126 ° 10.25 W

End
Lat: 48 ° 46.29 N
Lon: 126 ° 10.32 W

Oxygen Info For This Cast
Blank Value: 0.0037 mL · L⁻¹
Std Value: 0.7103 mL · L⁻¹
*Date Run: 7 | 9 | 10
Analyst: H.M.

* 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: 2010-15

Station: LG 09

Event #: 69

Ship: Tully

UTC Date (dd|mmm|yyyy): 08 | 09 | 2010

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	184	1201	1.554	2005	☒	2005	☒	☒	☒							
2	185	1459	0.750	1500	☒		☒	☒	☒							
3	186	1327	0.416	1250	☒		☒	☒	☒							
4	187	570	0.248	1000	☒		☒	☒	☒							
5	188	1414	0.294	750	☒		☒	☒	☒							
6	189	2060	0.506	500	☒		☒	☒	☒							2056-0.496
7	190	1326	0.969	400	☒		☒	☒	☒							
8	191	3116	1.737	300	☒		☒	☒	☒							
9	192	612	1.709	250	☒	r	☒	☒	☒							
10	193	1335	2.227	200	☒		☒	☒	☒							
11	194	3178	2.463	175	☒		☒	☒	☒							
12	195	2000	2.419	150	☒	r	☒	☒	☒							
13	196	3135	3.358	125	☒		☒	☒	☒							
14	197	1460	3.901	100	☒		☒	☒	☒							
15	198	3194	3.591	75	☒	r	☒	☒	☒							
16	199	2075	4.753	50	☒		☒	☒	☒							
17	200	3164	5.611	30 #	☒		☒	☒	☒							
18	201	3107	5.852	20 #	☒		☒	☒	☒	☒	☒	☒	☒	☒	☒	
19	202	3118	6.132	10	☒		☒	☒	☒	☒	☒	☒	☒	☒	☒	
20	203	3061	6.393	5	☒	-	☒	☒	☒	☒	☒	☒	☒	☒	☒	
21					☒											
22	204			25	☒	☒										
23	205			15	☒	☒										
24																

Watchkeeper(s): 4M 07

Bottom Depth: 2047 m

Transmisso Cleaned: ☒ Y / N

	UTC	Local
Start	0146	1846
Bottom	0220	1920
End	0315	2015

Positional Information
 Lat: 48 ° 51.16 N
 Lon: 127 ° 19.25 W

▼
 Lat: 48 ° 51.18 N
 Lon: 127 ° 19.25 W

▼
 Lat: 48 ° 51.09 N
 Lon: 127 ° 19.22 W

Oxygen Info For This Cast
 Blank Value: 0.0037 mL • L⁻¹
 Std Value: 0.7103 mL • L⁻¹
 *Date Run: 8 | 9 | 10
 Analyst: H.M.

* 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: 2010-15 Station: LG06 Event #: 74 Ship: TULLY UTC Date (dd|mmm|yyyy): 8 SEP 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	CHL	MA4						Flask Serial #	Value mL · L ⁻¹	
1		206	B-10	✓	969	✓	✓								1477	0.218	
2		207	750	✓											3028	0.206	
3		208	500	✓											1316	0.505	
4		209	400	✓		✓	vv								1313	0.932	3069 - 0.937
5		210	300	✓											3108	1.298	
6		211	250	✓											3126		NO WATER *
7		212	200	✓											3180	2.465	called 211 should be 212
8		213	175	✓											2019	3.311	
9		214	150 *	✓											2073	3.226	
10		215	100	✓											3124	4.403	
11		216	75	✓		✓									3043	4.900	1174 - 4.903
12		217	50	✓									*		1498	0.471	?
13		218	30	✓											3084	5.882	
14		219	20	✓			✓	w	vv						2055	5.700	
15		220	10	✓				w	vv						2082	6.225	
16		221	5	✓		✓	✓	vv	vv						1367	6.472	
17		222	125	✓		✓	✓								657	4.054	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s): MR

Bottom Depth: 945 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0902	0202
Bottom	0922	0222
End	0955	0255

Positional Information
Start Lat: 49° 03.48 N
Lon: 127° 01.18 W

Bottom Lat: 49° 03.48 N
Lon: 127° 01.20 W

End Lat: 49° 03.43 N
Lon: 127° 01.31 W

Oxygen Info For This Cast
Blank Value: 0.0037 mL · L⁻¹
Std Value: 0.7103 mL · L⁻¹
*Date Run: 7.9.10
Analyst: H.m

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

* Laniard of Nisk 5 caught around bottom cap of Nisk 6. Not sure of seal of Nisk 5.

Water Properties Group

Rosette Log

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

Cruise ID: 2010-15 Station: L G 04 Event #: 76 Ship: TULLY UTC Date (dd|mmm|yyyy): 08 | Sep | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	chl	nut4						Flask Serial #	Value mL · L ⁻¹	
1		223	82-10	✓ 135	✓	✓									557	1.530	1.5
2		224	125	✓		✓									1470	1.472	
3		225	100	✓											1386	2.113	
4		226	75	✓											3187	3.453	
5		227	50	✓	✓										1373	4.183	1337-4.194
6		228	30	✓											1134	4.473	
7		229	20	✓				✓✓	✓✓						631	5.587	
8		230	10	✓				✓✓	✓✓						1248	6.224	
9		231	5	✓			✓	✓✓	✓✓						1404	6.420	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s): MR

Bottom Depth: 145 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	1140	0440
Bottom	1144	0444
End	1155	0455

Positional Information
Start
Lat: 49 ° 11.29 N
Lon: 126 ° 49.49 W

Bottom
Lat: 49 ° 11.31 N
Lon: 126 ° 49.47 W

End
Lat: 49 ° 11.30 N
Lon: 126 ° 49.47 W

Oxygen Info For This Cast
Blank Value: 0.0037 mL · L⁻¹
Std Value: 0.7163 mL · L⁻¹
*Date Run: 7 | 9 | 10
Analyst: H.M

* 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: 2010-15 Station: L602 Event #: 79 Ship: TULLY UTC Date (dd|mmm|yyyy): 8 | SEP | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	CHK	NHA						Flask Serial #	Value mL · L ⁻¹	
1		232	Bot-10	✓ 90	✓	✓									1146	2.790	K
2		233	75	✓	✓	✓									1489	3.629	K
3		234	50	✓	✓	✓									690	3.969	K
4		235	30	✓	✓✓	✓✓									2027	4.091	3182 - 4.080
5		236	25	✓											—	—	K
6		237	20	✓	✓	✓		✓✓	✓✓						528	4.765	
7		238	15	✓											—	—	K
8		239	10	✓	✓	✓		✓✓	✓✓						3157	6.126	
9		240	5	✓	✓	✓	✓	✓✓	✓✓						371	6.169	
10		241	5	✓													K
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s): MR

Bottom Depth: 98 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	1342	0642
Bottom	1345	0645
End	1353	0653

Positional Information
Start Lat: 49° 18.68 N
Lon: 126° 38 07 W

Bottom Lat: 49° 18.70 N
Lon: 126° 38 13 W

End Lat: 49° 18.70 N
Lon: 126° 38 15 W

Oxygen Info For This Cast
Blank Value: 0.0037 mL · L⁻¹
Std Value: 0.7103 mL · L⁻¹
*Date Run: 7 | 9 | 10
Analyst: H.M.

* 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: 2010-15 Station: L601 Event #: 81 Ship: TULLY UTC Date (dd|mmm|yyyy): 8 | SEP | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken							Oxygen Titrations		Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	chl	nut4						Flask Serial #	Value mL • L ⁻¹	
1		242	Bot-10	✓	41	✓	✓								621	3.696	
2		243	30	✓		✓	✓								569	3.621	
3		244	20	✓		✓	✓		✓✓	✓✓					647	3.705	
4		245	10	✓		✓	✓		✓✓	✓✓					1475	5.375	
5		246	5	✓		✓✓	✓✓	✓	✓✓	✓✓					1378	5.623	1261 - 5.627
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s): MR

Bottom Depth: 51 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1444	0744
Bottom	1446	1446
End	1452	0752

Positional Information
Start Lat: 49 ° 20.52 N
Lon: 126 ° 35.03 W

Bottom Lat: 49 ° 20.51 N
Lon: 126 ° 35.03 W

End Lat: 49 ° 20.52 N
Lon: 126 ° 35.01 W

Oxygen Info For This Cast
Blank Value: 0.0037 mL · L⁻¹
Std Value: 0.7103 mL · L⁻¹
*Date Run: 7.9.10
Analyst: HAA

* 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: 2010-15 Station: LBP3 Event #: 85 Ship: Tully UTC Date (dd|mmm|yyyy): 8 | 9 | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken							Oxygen Titrations		Comments				
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	chl	NH ₄	DIC					Flask Serial #	Value mL • L ⁻¹		
1	1	247	B-10	✓	163	✓	✓				✓					1201	2.214	
2	2	248	150	✓		✓	✓				✓					1459	2.265	1327- 2.288
3	3	249	125	✓												570	2.535	
4	4	250	100	✓												1414	2.722	
5	5	251	75	✓												2060	3.123	
6	6	252	50	✓												2056	3.562	
7	7	253	30	✓												1326	3.623	
8	8	254	20	✓					✓✓	✓✓						3116	4.103	
9	9	255	10	✓					✓✓	✓✓						612	5.302	
10	10	256	5	✓		✓	✓	✓	✓	✓✓	✓					1335	5.896	Dup chl missed
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Watchkeeper(s): H.M. DY

Bottom Depth: 170 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2129	1429
Bottom	2133	1433
End	2146	1446

Positional Information
Start Lat: 50 ° 3.13 N
Lon: 127 ° 55.35 W

Bottom Lat: 50 ° 3.14 N
Lon: 127 ° 55.36 W

End Lat: 50 ° 3.17 N
Lon: 127 ° 55.33 W

Oxygen Info For This Cast
Blank Value: 0.0037 mL · L⁻¹
Std Value: 0.7103 mL · L⁻¹
*Date Run: 7 | 9 | 10
Analyst: H.M.

* 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: 2010-15 Station: LBPS Event #: 88 Ship: Tully UTC Date (dd|mmm|yyyy): 8/9 | 9 | 10

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	DIC			
1	257	1477	0.452	B-10	☒	1278	☒	☒			☒			
2	258	3023	0.343	1000	☒		☒	☒						
3	259	1316	0.323	750	☒		☒							
4	260	1313	0.629	500	☒		☒							
5	261	3069	0.850	400	☒		☒							
6	262	3108	1.292	300	☒	☒								3126 - 1.290
7	263	3160	1.562	250	☒									
8	264	2019	1.849	200	☒									
9	265	2073	1.896	175	☒									
10	266	3124	1.995	150	☒									
11	267	3043	2.483	125	☒		☒				☒			
12	268	1174	3.035	100	☒									
13	269	1498	2.896	75	☒									
14	270	3084	3.252	50	☒									
15	271	2055	3.617	30	☒									
16	272	2082	5.642	20	☒				☒	☒				
17	273	1367	5.795	10	☒				☒	☒				
18	274	657	5.797	5	☒	☒	☒		☒	☒	☒			
19														
20														
21														
22														
23														
24														

Watchkeeper(s):
04

Bottom Depth: 1274 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	2338	1638
Bottom	0001	1701
End	0039	1739

Positional Information

Start

Lat: 49 ° 59.94 N

Lon: 128 ° 0.03 W

Bottom

Lat: 49 ° 59.97 N

Lon: 127 ° 59.98 W

End

Lat: 49 ° 59.94 N

Lon: 128 ° 00.03 W

Oxygen Info For This Cast

Blank Value: 0.0037 mL · L⁻¹

Std Value: 0.7103 mL · L⁻¹

*Date Run: 7 | 9 | 10

Analyst: H.M.

*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: 2010-15 Station: LBP-7Event #: 91Ship: TULLYUTC Date (dd|mmm|yyyy): 9 | 9 | 16

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken							Oxygen Titrations		Comments			
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	CHL	NH4	DIC	Flask Serial #	Value mL · L ⁻¹					
1		275	2005	✓ 2005	✓	✓	✓	✓			✓				3209	1.338	
2		276	1500	✓		✓	✓								3184	0.650	
3		277	1250	✓											1317	0.345	
4		278	1000	✓			✓	✓							3191	0.235	
5		279	750	✓		✓							BAD 1st - DIC looked Good?		3166	0.239	471- 0.560?
6		280	500	✓											1478	0.559	?
7		281	400	✓											2064	0.886	
8		282	300	✓							✓				1338	1.443	
9		283	250	✓											1497	1.877	
10		284	200	✓											3038	2.344	
11		285	175	✓											1401	2.537	
12		286	150	✓		✓									3174	2.883	2032- 2.890
13		287	125	✓											3098	3.058	
14		288	100	✓											3052	3.756	
15		289	75	✓											3109	3.747	
16		290	50	✓											1492	5.250	
17		291	30	✓											3057	4.957	
18		292	20	✓		✓			✓	✓					3171	6.102	
19		293	10	✓				✓	✓	✓					2035	6.220	
20		294	5	✓		✓	✓		✓	✓	✓				3040	6.214	
21																	
22																	
23																	
24																	

Watchkeeper(s): H.M.Bottom Depth: 2186 mTransmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0315	2015
Bottom	0350	2050
End	0443	2143

Positional Information		
Lat:	49 ° 52.31	N
Lon:	128 ° 11.13	W

Start

Bottom

Lat:	49 ° 52.31	N
Lon:	128 ° 11.17	W

End

Lat:	49 ° 52.36	N
Lon:	128 ° 11.20	W

Oxygen Info For This Cast

Blank Value: 0.0037 mL · L⁻¹Std Value: 0.7103 mL · L⁻¹*Date Run: 7/9/16Analyst: H.M.

* 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: 2010-15 Station: C501 Event #: 104 Ship: TULLY UTC Date (dd|mmm|yyyy): 10 | 9 | 10

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	CHL	NH ₄				Flask Serial #	Value mL · L ⁻¹	
1		295	2005	✓ 2005	✓	✓	✓						1201	0.984	130.7% ?
2		296	1500	✓									1459	0.473	130.6 %
3		297	1250	✓									1327		
4		298	1000	✓									570		
5		299	750	✓		✓	✓						1414		
6		300	500	✓	✓								2060		2056-
7		301	400	✓									1326		
8		302	300	✓									3116		
9		303	250	✓ K									612		
10		304	200	✓			✓						1335		
11		305	175	✓									3178		
12		306	150	✓ K											
13		307	125	✓											
14		308	100	✓	✓										
15		309	75	✓ K											
16		310	50	✓											
17		311	30	✓											
18		312	20	✓				✓	✓						
19		313	10	✓				✓	✓						
20		314	5	✓ K	✓	✓	✓	✓	✓						
21															
22		315	25	✓ K											
23		316	15	✓ K											
24															

Watchkeeper(s): H.M.

Bottom Depth: 2109 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0436	2136
Bottom	0511	2211
End	0604	2304

Positional Information
Start Lat: 50 ° 34.83 N
Lon: 129 ° 41.54 W

Bottom Lat: 50 ° 34.83 N
Lon: 129 ° 41.60 W

End Lat: 50 ° 34.90 N
Lon: 129 ° 41.53 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: 2010-15 Station: C504 Event #: 110 Ship: TULLY UTC Date (dd|mmm|yyyy): 10 | SEP | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	CHL	NHT						Flask Serial #	Value mL · L ⁻¹	
1		317	Bot 10	✓ 102	✓	✓									1490	2.243	
2		318	75	✓	✓	✓									1144	2.587	
3		319	50	✓	✓	✓									3191	3.371	
4		320	30	✓	✓	✓									1407	3.944	
5		321	20	✓	✓	✓		✓✓	✓✓						1321	4.191	
6		322	10	✓	✓	✓		✓✓	✓✓						1180	5.462	1481 - 5.449
7		323	5	✓	✓	✓	✓	✓✓	✓✓						2084	5.641	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s): ML

Bottom Depth: 110 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1111	0411
Bottom	1114	0414
End	1122	0422

Positional Information
Start Lat: 50° 49.02 N
Lon: 129° 12.80 W

Bottom Lat: 50° 48.97 N
Lon: 129° 12.82 W

End Lat: 50° 48.98 N
Lon: 129° 12.83 W

Oxygen Info For This Cast
Blank Value: 0.0030 mL · L⁻¹
Std Value: 0.7115 mL · L⁻¹
*Date Run: 10 | 9 | 10
Analyst: H.M

* 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: 2010-15 Station: CS07 Event #: 122 Ship: TULLY UTC Date (dd|mmm|yyyy): 11 | 9 | 10

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	324	1201	3.470	8-5	☒ 55	☒	☒									
2	325	1459	3.471	50	☒ K	☒										1327-3.522
3	326	570	3.775	30	☒											
4	327	1414	4.203	20	☒				vv	vv						
5	328	2060	5.655	10	☒		☒		vv	vv						
6	329	2056	6.409	5	☒ K	☒	☒		vv	vv						
7																
8																
9	330			25	☒ Y											
10	331			15	☒ K											
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): H.M.

Bottom Depth: 65 m

Transmisso Cleaned: ☒ Y ☐ N

	UTC	Local
Start	0142	1842
Bottom	01	
End	0152	1852

Positional Information

Start
 Lat: 51 ° 04 . 47 N
 Lon: 128 ° 44 . 09 W

Bottom
 Lat: 51 ° 04 N
 Lon: 128 ° 44 W

End
 Lat: 51 ° 04 . 47 N
 Lon: 128 ° 44 . 08 W

Oxygen Info For This Cast

Blank Value: 0.0030 mL · L⁻¹
 Std Value: 0.7115 mL · L⁻¹
 *Date Run: 10 | 9 | 10
 Analyst: H.M.

* 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: 2010-15 Station: CS 09 Event #: 126 Ship: TULLT UTC Date (dd|mmm|yyyy): 11 | 9 | 10

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	332	3116	1.468	B-10	☒ 183	✓	✓									
2	333	612	1.465	175	☒	✓	✓									
3	334	1335	1.593	150	☒											
4	335	3178	2.015	125	☒											
5	336	2000	2.613	100	☒	✓	✓									3135- 2.612
6	337	1460	3.191	75	☒		✓									
7	338	3194	3.945	50	☒											
8	339	2075	4.385	30	☒		✓									
9	340	3164	5.043	20	☒				✓✓	✓✓						
10	341	3107	6.410	10	☒				✓✓	✓✓						
11	342	3118	6.658	5	☒	✓	✓	✓	✓✓	✓✓						
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): H.M.

Bottom Depth: 192 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0404	2104
Bottom	0407	2107
End	0420	2120

Positional Information

Start Lat: 51 ° 12. 48 N
Lon: 128 ° 28. 11 W

Bottom Lat: 51 ° 12. 49 N
Lon: 128 ° 28. 10 W

End Lat: 51 ° 12. 51 N
Lon: 128 ° 28. 10 W

Oxygen Info For This Cast

Blank Value: 0.0030 mL • L⁻¹
Std Value: 0.7115 mL • L⁻¹
*Date Run: 10 | 9 | 10
Analyst: H.M.

* 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: 2010-15 Station: UBC7 Event #: 135 Ship: TULLY UTC Date (dd|mmm|yyyy): 11 | SEP | 2010

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	POM	phyto				
1	343			Bot-10	☒ 149						☒					
2	344			30	☒		☒		☒							
3	345			5	☒		☒		☒		☒	☒				
4	346			0					☒		☒					
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): MR

Bottom Depth: 158 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1341	0641
Bottom	1345	0645
End	1351	0651

Positional Information
Start
Lat: 51 ° 29.99 N
Lon: 127 ° 49.01 W

Bottom
Lat: 51 ° 30.03 N
Lon: 127 ° 48.99 W

End
Lat: 51 ° 30.06 N
Lon: 127 ° 48.96 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

Rosette Log

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

Cruise ID: 2010-15 Station: R1 Event #: 138 Ship: TULLY UTC Date (dd|mmm|yyyy): 11 | 11 | 10

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	ph _{ph}					
1	347	1447	2.079	Bot-10	✓ 305	✓	✓									
2	348	3028	2.035	300	✓	✓	✓									
3	349	1316	2.084	250	✓	✓	✓									
4	350	1313	2.092	200	✓	✓	✓									
5	351	3069	2.187	175	✓	✓	✓									CHECK SAMPLE # & FLASK #
6	352	3108	2.176	150	✓	✓	✓									
7	353	3126	2.238	125	✓	✓	✓									3180 - 2.241
8	354	2019	2.268	100	✓	✓	✓									
9	355	2073	2.504	75	✓	✓	✓									
10	356	3124	2.935	50	✓	✓	✓									
11	357	3043	4.078	30	✓	✓	✓									
12	358	1174	3.690	20	✓	✓	✓									
13	359	1498	3.771	10	✓	✓	✓									
14	360	3084	4.015	5	✓	✓	✓	✓								
15	361	—	UBC	30	✓	—	✓									} UBC
16	362	—	UBC	5	✓	—	✓		✓		✓					
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): RY MR

Bottom Depth: 308 m

Transmisso Cleaned: Y / N

	Time	UTC	Local
Start		1557	0857
Bottom		1603	0903
End		1622	0922

Positional Information

Start
Lat: 51 ° 26.36 N
Lon: 127 ° 38.41 W

Bottom
Lat: 51 ° 26.39 N
Lon: 127 ° 38.36 W

End
Lat: 51 ° 26.43 N
Lon: 127 ° 38.37 W

Oxygen Info For This Cast

Blank Value: 0.0030 mL · L⁻¹

Std Value: 0.7115 mL · L⁻¹

*Date Run: 10 | 9 | 10

Analyst: H.M.

* 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: 2010-15 Station: R12 Event #: 140 Ship: Tully UTC Date (dd|mmm|yyyy): 11 | 09 | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	POM	Phyto	Kom			Flask Serial #	Value mL • L ⁻¹	
1	1	363	B-10	✓ 315				✓							Kom
2	5	364	250	✓						✓					Kom
3	6	365	150	✓						✓					Kom
4	7	366	75	✓		✓				✓					Kom
5	2	367	30	✓		✓									Kom
6	8	368	25	✓						✓					Kom
7	9	369	15	✓		✓				✓					Kom
8	3	370	5	✓		✓		✓							Kom
9	10	371	5	✓						✓					Kom
10	4	372	0	✓				✓							Kom
11															
12															
13															Kom 1-4
14															Kom 5-10
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s): JY / MR

Bottom Depth: 325 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1729	1029
Bottom	1736	1036
End	1750	1050

Positional Information
Start Lat: 51 ° 31.17 N
Lon: 127 ° 33.56 W

Bottom Lat: 51 ° 31.22 N
Lon: 127 ° 33.63 W

End Lat: 51 ° 31.22 N
Lon: 127 ° 33.52 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: 2010-15 Station: R: 3 Event #: 143 Ship: TULLY UTC Date (dd|mmm|yyyy): 11 | 9 | 10

Firing #	Niskin #	Sample #	Rosette Operation			Samples Taken			PHYG	CHL	NUT					Oxygen Titrations		Comments
			Target Pressure	Confirmed	Pressure	Oxy	Nut	Sal								Flask Serial #	Value mL · L ⁻¹	
1		373	30	✓							✓							
2		374	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: 326 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	20 31	13 31
Bottom	20 37	13 37
End	20 46	13 46

Positional Information
Start Lat: 51 ° 35 . 72 N
Lon: 127 ° 32 . 07 W

Bottom Lat: 51 ° 35 . 74 N
Lon: 127 ° 32 . 10 W

End Lat: 51 ° 35 78 N
Lon: 127 ° 32 09 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 dally, if possible

Water Properties Group

Rosette Log

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

Cruise ID: 2010-15 Station: R1 4 Event #: 145 Ship: TULLY UTC Date (dd|mmm|yyyy): 11 | 9 | 10

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	POM	PH10	CHL	UPE NUT		Flask Serial #	Value mL · L ⁻¹	
1		375	B-10	✓ 292	✓	✓		✓					94	2.254	
2		376	250	✓ 1310									134	2.271	
3		377	200	✓									1247	2.331	
4		378	175	✓		✓							3016	2.378	BUBBLE ON LENS
5		379	150	✓									1300	2.438	SAMPLE # & DEPTH WRONG
6		380	125	✓									1473	2.474	
7		381	100	✓									1307	2.345	
8		382	75	✓									1318	2.553	
9		383	50	✓	✓								745	3.598	1298 - 3603
10		384	30	✓							✓		1392	3.945	
11		385	20	✓									1395	4.225	
12		386	10	✓									1347	4.833	
13		387	5	✓	✓	✓		✓	✓	✓	✓		1488	5.979	
14		388	0	✓	✓	✓		✓					1421	7.115	
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s): H.M.Bottom Depth: 299 mTransmisso Cleaned: Y / N

Time	UTC	Local
Start	2148	1448
Bottom	2154	1454
End	2210	1510

Positional Information

Start Lat: 51 ° 38 . 95 N
Lon: 127 ° 26 . 89 W

Bottom Lat: 51 ° 38 . 93 N
Lon: 127 ° 26 . 84 W

End Lat: 51 ° 38 78 N
Lon: 127 ° 26 77 W

Oxygen Info For This Cast

Blank Value: 0.0030 mL · L⁻¹
Std Value: 0.7115 mL · L⁻¹
*Date Run: 10 | 9 | 10
Analyst: H.M.

* 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: 2010-15 Station: R. 5 Event #: 147 Ship: TULLY UTC Date (dd|mmm|yyyy): 11 | 9 | 10

Firing #	Niskin #	Sample #	Rosette Operation			Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed ✓	Pressure	Oxy	Nut	Sal	Pom	chl	Nut	Phyto				Flask Serial #	Value mL • L ⁻¹	
1		389	B-10	✓	194				✓									
2		390	30	✓						✓	✓							
3		391	5	✓					✓	✓	✓	✓						
4		392	0	✓					✓	✓								
5																		
6																		
7																		
8																		
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Watchkeeper(s): H.M.

Bottom Depth: 203 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	23 18	16 18
Bottom	23 22	16 22
End	23 28	16 28

Positional Information
Start Lat: 51 ° 40 . 65 N
Lon: 127 ° 20 . 00 W

Bottom Lat: 51 ° 40 . 65 N
Lon: 127 ° 20 . 00 W

End Lat: 51 ° 40 . 64 N
Lon: 127 ° 19 . 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

Water Properties Group

Rosette Log

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

Cruise ID: 2010-15 Station: R. 6 Event #: 150 Ship: TULLY UTC Date (dd|mmm|yyyy): 12 | 9 | 10

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken									Oxygen Titrations		Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	CHL	PHYTO	NUTS				Flask Serial #	Value mL · L ⁻¹	
1		393	30	✓						✓						
2		394	5	✓				✓	✓	✓						
3																
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Watchkeeper(s): H.M.

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

Time	UTC	Local
Start	00 42	17 42
Bottom	00 45	17 45
End	00 49	17 49

Positional Information
Start
Lat: 51 ° 40 52 N
Lon: 127 ° 17 09 W

Bottom
Lat: 51 ° 40 53 N
Lon: 127 ° 17 08 W

End
Lat: 51 ° 40 52 N
Lon: 127 ° 17 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