

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: SG42Event #: 3Ship: TULLYUTC Date (dd mmm yyyy): 27 07 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	PARLOS	PH	AC/ALK	HPIC	CHL	PHYTO	DEL	Flask Serial #	Value mL · L ⁻¹	
1		25	400	✓ 235	✓	✓	✓		✓	✓					1201	3.164	
2		26	350	✓ "			✓								1302	3.170	BOTTOM SAIGOT DRIPPING
3		27	310	✓ "						✓					1327	3.165	
4		28	250	✓ 235											570	3.158	
5		29	210	✓											1414	3.254	
6		30	175	✓											3051	3.595	
7		31	150	✓											1326	3.925	
8		32	125	✓											3116	4.180	
9		33	100	✓										✓	612	4.227	
10		34	90	✓		✓									1335	4.220	
11		35	80	✓											3178	4.263	
12		36	70	✓											2000	4.290	
13		37	60	✓											3135	4.212	
14		38	50	✓											1460	4.206	
15		39	40	✓		✓	✓								3194	4.212	
16		40	30	✓							✓	✓			3164	4.355	
17		41	20	✓											3107	4.566	
18		42	15	✓		✓	✓								3118	4.870	
19		43	10	✓							✓	✓		✓	3061	5.674	
20		44	5	✓			✓				✓	✓	✓		2060	5.782	
21		45	0	✓					✓	✓				✓	1260	6.531	
22																	
23	6	30	175												2056	3.608	
24	15	39	40												2075	4.216	

Watchkeeper(s): H.M.Bottom Depth: 248 mTransmisso Cleaned: (Y) N

Time	UTC	Local
Start	0042	1742
Bottom	0049	1749
End	0107	1807

Positional Information

Start	Lat: <u>49° 09.05</u>	N
	Lon: <u>123° 25.58</u>	W
Bottom	Lat: <u>49° 09.11</u>	N
	Lon: <u>123° 25.48</u>	W
End	Lat: <u>49° 09.22</u>	N
	Lon: <u>123° 25.17</u>	W

THIO = 0.222144N

Oxygen Info For This Cast

Blank Value:	<u>0.0007</u>	mL · L ⁻¹
Std Value:	<u>0.5376</u>	mL · L ⁻¹
*Date Run:	<u>21/07/10</u>	
Analyst:	<u>N2</u>	

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

NINA & DRAWS
TANIA

Water Properties Group

Rosette Log

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

Cruise ID: 2010-86 Station: CPEI Event #: 4 Ship: TULLY UTC Date (dd mmm/yyyy): 22 07 10

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	PH	DCLA	HPIC	CHL	phlo	DO's	3+0	Flask Serial #	Value mL · L ⁻¹	
1	1	46	Bot-10	✓	130	6.5	✓		✓	✓					94	1.804	
2	2	47	80	✓		7.0	✓		✓				✓		745	2.584	
3	3	48	70	✓		7.2	✓		✓						1247	2.828	2.823
4	4	49	60	✓		7.6									1300	3.160	
5	5	50	50	✓		8.0									1307	3.566	
6	6	51	40	✓		8.5		✓							1318	3.958	
7	7	52	35	✓		8.6									1330	4.114	
8	8	53	30	✓		8.8	✓								1392	4.477	-stopper may be popped?
9	9	54	25	✓		9.0									1395	4.505	
10	10	55	20	✓		9.0							✓		1397	4.525	
11*	11	56	15	✓		9.1									1408	4.846	*Secondary production went first bad
12	12	57	10	✓		9.3									1421	5.778	sample cap
13	13	58	5	✓		9.9	✓								1488	5.952	5.954
14	14	59	0			10.3	✓						✓				
15	15 ^M	60	MAX-10	✓	30		✓				✓✓	✓✓					
16	16 ^M	61	MAX-10	✓	30						✓✓	✓✓					
17 ^{net}	17	62	MAX-10	✓	30						✓✓	✓✓	✓✓				
18 ²³	18	63	C MAX	✓	10									343			
19	19 ^M	64	C MAX	✓	10		✓										
20	20 ^M	65	C MAX	✓	10												
21 ^M	21	66	5				✓										
22 ^M	22	67	5														
23 ²⁵	23	68	5											273			
24	24	69	0			NN	JBC		WE	MD	MH	MH	MH	LJ			

Watchkeeper(s): H.M.

Bottom Depth: 139 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2226	
Bottom	2229	
End	2246	

Positional Information
Start Lat: 51 ° 00.09 N
Lon: 127 ° 49.93 W

Bottom Lat: 51 ° 00 07 N
Lon: 127 ° 49.96 W

End Lat: 50 ° 59.95 N
Lon: 127 ° 50.23 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: 2010-36 Station: QCS1Event #: 6Ship: TULLYUTC Date (dd|mmm|yyyy): 23 | 07 | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			Oxygen Titrations								Comments	
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	pH	HPLC	CHL	Triple O ₂	DEL O ₂	phyto	Flask Serial #	Value mL · L ⁻¹	
1	1	70	E-10	✓	160	✓		✓	✓						1490	1.839	
2	2	71	130	✓			✓								1144	1.971	
3	3	72	120	✓											3181	2.096	
4	4	73	110	✓											1407	2.319	
5	5	74	100	✓											1321	2.891	2.864 (1481)
6	6	75	90	✓											2084	3.227	
7	7	76	80	✓					✓						1180	3.530	
8	8	77	70	✓											1476	3.861	
9	9	78	60	✓											1365	4.431	
10	10	79	50	✓				✓							2086	4.688	
11	11	80	40	✓											437	4.622	
12	12	81	35	✓											650	4.531	
13	13	82	30	✓					✓						1387	4.785	
14	14	83	25	✓											1406	4.867	
15	15	84	20	✓											2033	5.155	
16	16	85	15	✓											638	6.161	
17	17	86	10	✓											1411	7.301	
18	18	87	5	✓			✓					✓			1123	7.636	Bottle 915 702 Oxy dup missing
19	19	88	0	✓									✓		2065	7.751	
20	20	89	max-10	✓	20					✓	✓						
21	21	90	CHL-max	✓	10					✓	✓		✓				
22	22	91	5	✓	5					✓	✓			✓			
23						TB	MR	MR	MR	LS	GC	TB	TB	LS	GC	MR	
24																	

Watchkeeper(s): _____

Bottom Depth: 170 mTransmisso Cleaned: (Y) N

	UTC	Local
Time		
Start	0929	0229
Bottom	0933	0233
End	0956	0256

FINISH SAMPLING 0353

Positional Information

Start	Lat: 52 ° 14 99 N
	Lon: 129 ° 03.00 W
	▼
Bottom	Lat: 52 ° 15.02 N
	Lon: 129 ° 03.01 W
	▼
End	Lat: 52 ° 15.00 N
	Lon: 129 ° 03.01 W

Oxygen Info For This Cast

Blank Value:	<u>0.00076</u> mL · L ⁻¹
Std Value:	<u>0.53777</u> mL · L ⁻¹
*Date Run:	<u>23</u> <u>07</u> <u>10</u>
Analyst:	<u>N2</u>

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

OXY: TANIA
MARK PIERCE

NISK 18 left dripping LOTS after DIC sampling.

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: QCS 2 Event #: 7 Ship: Tully UTC Date (dd|mmm|yyyy): 23|07|2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	Phyto	HPLC	CHL	MarCOS	Phyl	.		Flask Serial #	Value mL • L ⁻¹	
1		92	PIC	✓ 35							✓						} PIC
2		93	PIC	✓ 35							✓						
3		94	C-M-10	✓ 30					✓✓	✓✓							
4		95	C-MAX	✓ 22					✓✓	✓✓							
5		96	C-MAX	✓ 22							✓						
6		97	C-MAX	✓ 22							✓						
7		98	15	✓													
8		99	5	✓							✓						
9		100	5	✓							✓						
10		101	5	✓			✓✓		✓✓	✓✓							
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s): MR

Bottom Depth: 206 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1157	0457
Bottom	1202	0502
End	1211	0511

Positional Information

Start

Lat: 52 ° 08.97 N

Lon: 129 ° 29.99 W

Bottom

Lat: 52 ° 08.97 N

Lon: 129 ° 29.98 W

End

Lat: 52 ° 08.95 N

Lon: 129 ° 30.03 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

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: QCS 2 Event #: 8 Ship: TULLY UTC Date (dd mmm yyyy): 23 07 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			Oxygen Titrations								Comments		
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	PH	ORP	trye O2	CDOM	DOC	ORP	ph yf		Flask Serial #	Value mL • L ⁻¹
1	1	102	B-10	✓	195	✓6.2	✓		✓	✓	✓					1201	1.747	-huge bubble in DO
2	2	103	175	✓		6.4		✓								1302	1.632	slow drip from bottle 2
3	3	104	150	✓		✓				✓		✓				1327	2.585	bot 3 compromised
4	4	105	140	✓		7.3				✓						570	2.963	
5	5	106	130	✓		7.7										1414	3.815	
6	6	107	120	✓		✓7.9										3051	3.995	
7	7	108	110	✓		8.2										1320	4.739	
8	8	109	100	✓		8.5	✓									3116	5.130	
9	9	110	90	✓		8.8										612	5.400	
10	10	111	80	✓		9.1										1335	5.440	
11	11	112	70	✓		9.3										3178	5.520	
12	12	113	60	✓		tepid										2000	5.716	
13	13	114	50	✓		9.9			✓							3135	5.786	
14	14	115	40	✓		10.4										1460	5.815	
15	15	116	35	✓		10.6										3194	5.870	
16	16	117	30	✓		✓11.0										2075	5.937	
17	17	118	25	✓		11.5										3107	6.080	
18	18	119	20	✓	22	11.8					✓	899	✓			3118	6.264	
19	19	120	15	✓		13.5				✓						3061	6.254	
20	20	121	10	✓		13.8						395	✓			2060	6.231	
21	21	122	5	✓		13.8		✓				801			✓	1260	6.222	
22	22	123	0			13.7	✓		✓	✓	✓	801	✓	✓	✓	1459	6.217	
23																		
24						TB	TB			GC		L.J.C.S.						

Watchkeeper(s):
MR

Bottom Depth: 205 m
Transmisso Cleaned: (Y) / N

	Time	UTC	Local
Start		12 51	0551
Bottom		12 55	0555
End		13 17	0617

Positional Information
Start
Lat: 52 ° 09 03 N
Lon: 129 ° 30 .03 W

Bottom
Lat: 52 ° 09 02 N
Lon: 129 ° 30 .02 W

End
Lat: 52 ° 08 99 N
Lon: 129 ° 30 09 W

Oxygen Info For This Cast
Blank Value: 0.00076 mL · L⁻¹
Std Value: 0.53777 mL · L⁻¹
*Date Run: 23 107 10
Analyst: N2

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

→ NUTS: RED RACK

20395
16 699

Water Properties Group

TMR Rosette Log

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

Cruise ID: 2010-36 Station: QCS 4

Event #: 11

Ship: Tully

UTC Date (dd|mmm|yyyy): 23|Jul|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	124	100			✓		✓	V	
2	2	125	100			✓		✓	V	
3	3	126	90			✓		✓	V	
4	4	127	70		✓	✓		✓	V	
5	5	128	50			✓	✓	✓	V	
6	6	129	50			✓	✓	✓	V	
7	7	130	40		✓	✓		✓	V	
8	8	131	30			✓		✓	V	
9	9	132	20			✓	✓	✓	V	
10	10	133	20			✓	✓	✓	V	
11	11	134	15			✓		✓	V	
12	12	135	10		✓	✓		✓	V	
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s): 1B, ER, CS

Bottom Depth: 140 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1653	0953
Bottom	1701	1001
End	1712	1012

Positional Information

Start
Lat: 51 ° 55.25 N
Lon: 129 ° 58.18 W

Bottom
Lat: 51 ° 55.24 N
Lon: 129 ° 58.15 W

End
Lat: 51 ° 55.24 N
Lon: 129 ° 58.13 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: 2010-36 Station: QCS 4

Event #: 12

Ship: Tully

UTC Date (dd mmm yyyy): 23 07 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	pH	HPLC	CHL	OIB	Phyto	tripleO	Flask Serial #	Value mL · L ⁻¹	
1	1	136	8-10	✓	131	7.7	✓	✓	✓						865	4.277	
2	2	137	130	✓	131	7.8		✓	✓						861	4.277	
3	3	138	120	✓		7.9			✓						862	4.326	4.324
4	4	139	100	✓		8.1			✓			x			864	4.644	
5	5	140	90	✓		8.3	✓		✓						860	5.095	
6	6	141	70	✓		9.1			✓						866	5.647	
7	7	142	50	✓		9.7			✓						867	5.879	
8	8	143	40	✓		10.0		✓	✓						868	5.941	
9	9	144	30	✓		11.2			✓						869	6.108	
10	10	145	20	✓	18	12.9			✓						870	6.374	
11	11	146	15	✓		13.1			✓						871	6.392	6.393
12	12	147	10	✓		13.5			✓			x			873	6.353	
13	13	148	5	✓		13.6	✓		✓					449	874	6.346	
14	14	149	0	✓		13.6		✓	✓			x			875	6.341	
15	15	150	5	✓													Lizzy
16	16	151	5	✓													Lizzy
17	17	152	max-10	✓	30					xx	xx						biologrecal
18	18	153	chl max	✓	18					xx	xx						↓
19	19	154	5	✓						xx	xx		xx				↓
20																	
21																	
22																	
23																	
24						NN	NN	DI	GC	LJ	JB-C	JB-C	DI	JB-C	L.J.		

Watchkeeper(s): MA/TB

Bottom Depth: 141 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1722	1022
Bottom	1726	1026
End	1743	1043

Positional Information

Lat: 51 ° 55.26 N

Lon: 129 ° 58.15 W

Start

Bottom

Lat: 51 ° 55.28 N

Lon: 129 ° 58.18 W

End

Lat: 51 ° 55.34 N

Lon: 129 ° 58.07 W

Oxygen Info For This Cast

Blank Value: 0.00076 mL · L⁻¹

Std Value: 0.53777 mL · L⁻¹

*Date Run: 23 07 10

Analyst: NZ

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

CHL MAX @ 7 MINUS 13 = 20

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: QCS 7 Event #: 17 Ship: TULLY UTC Date (dd|mmm|yyyy): 24 | 07 | 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	HALE	PHTO	PH	DIC ALK	O ₁₈	3 ₀₂	
1	155	1201	0.380	B-10	☒	1065	☒	☒								4.0
2	156	1302	0.592	800	☒			☒								4.9
3	157	1327	0.441	600	☒									☒		5.6
4	158	570	0.902	400	☒											6.0
5	159	1414	1.785	300	☒											6.2
6	160	3051	2.430	250	☒		☒									6.5
7	161	1326	2.811	200	☒											6.9
8	162	3116	3.478	175	☒											7.1
9	163	612	3.778	150	☒											7.3
10	164	1335	4.516	125	☒							☒				7.5
11	165	3178	5.378	100	☒											7.8
12	166	2000	6.066	90	☒		☒									8.2
13	167	1460	5.649	70	☒											9.4
14	168	3194	5.789	50	☒		☒									10.5
15	169	2075	5.899	40	☒											11.1
16	170	3164	6.117	30	☒							☒				11.7
17	171	3107	6.260	20	☒											12.1
18	172	3118	6.416	10	☒											12.4
19	173	3061	6.440	5				☒						☒	☒	12.5
20	174	2060	6.442	0			☒	☒						☒		12.5
21	175			MAY-10	☒	20			☒	☒						
22	176			C MAY	☒	7			☒	☒						
23	177			5					☒	☒	☒					
24	178			5												LIZZIE

Watchkeeper(s): H.M. / D.1

Bottom Depth: 1043 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0127	1827
Bottom	0145	1845
End	0223	1923

Positional Information
 Start Lat: 51 ° 37.19 N
 Lon: 130 ° 46.16 W

Bottom Lat: 51 ° 37.19 N
 Lon: 130 ° 46.15 W

End Lat: 51 ° 37.17 N
 Lon: 130 ° 46.03 W

TH10 = 0.22238

Oxygen Info For This Cast

Blank Value: 0.00083 mL ☒

Std Value: 0.53766 mL ☒

*Date Run: 24 | 07 | 10

Analyst: N²

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

Water Properties Group

TMR Rosette Log

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

Cruise ID: 2010-26 Station: QCS10

Event #: 22

Ship: Tully

UTC Date (dd|mmm|yyyy): 24 Jul 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	191	1800			✓	✓		vv	
2	2	192	1400			✓	✓		vv	
3	3	193	1000			✓	✓		vv	
4	4	194	800			✓	✓		vv	
5	5	195	500			✓	✓		vv	
6	6	196	300			✓	✓	V	vv	
7	7	197	200			✓	✓		vv	
8	8	198	150			✓	✓	V	vv	
9	9	199	100			✓	✓		vv	
10	10	200	70			✓	✓	V	vv	
11	11	201	30			✓	✓	V	vv	
12	12	202	20			✓	✓	V	vv	
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s):
IG, ER, CS

Bottom Depth: 2726 m

Transmisso Cleaned: ✓ Y / N

Time	UTC	Local
Start	<u>1455</u>	<u>0755</u>
Bottom	<u>1606</u>	<u>0906</u>
End		

Positional Information

Start
Lat: 51 ° 01.205 N
Lon: 132 ° 10.784 W

Bottom
Lat: 51 ° 01.208 N
Lon: 132 ° 10.798 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

Water Properties Group

Biological Rosette/Marcos Rosette Log

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

Cruise ID: Z010-36 Station: QCS 10 Event #: 21 Ship: TULLY UTC Date (dd|mmm|yyyy): 24|07|2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken							Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	HPLC	CHL	Marcos		Flask Serial #	Value mL · L ⁻¹	
1	1	179	Pic	55						✓				
2	2	180	Pic	55						✓				
3	3	181	C-m-10	50				✓	✓					
4	4	182	C-max	37				✓	✓					
5	5	183	C-max	37						✓				
6	6	184	C-max	36						✓				
7	7	185	15							✓				
8	8	186	5							✓				
9	9	187	5							✓				
10	10	188	5				✓	✓	✓					
11	11	189	5											lizzy
12	12	190	5											lizzy
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

Watchkeeper(s): MR

Bottom Depth: 2725 m

Transmisso Cleaned: ✓ / N

Time	UTC	Local
Start	13 48	6 48
Bottom	13 54	6 54
End	14 04	7 04

Positional Information

Start Lat: 51 ° 01.20 N
Lon: 132 ° 10.77 W

Start

Bottom

Lat: 51 ° 01.20 N
Lon: 132 ° 10.79 W

End

Lat: 51 ° 01.21 N
Lon: 132 ° 10.80 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

Ios Deep rosette

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: QCS 10

Event #: 23

Ship: Tully

UTC Date (dd|mmm|yyyy): 24|07|2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken					Oxygen Titrations					Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DK	PH	018	DO	triple DO	Flask Serial #	Value mL · L ⁻¹	
1	1	201	3-10	✓ 2757	2.2	✓	✓	✓	✓				1490	2.214	
2	2	202	2200	✓	2.4								1144	1.493	
3	3	203	1800	✓	2.6								3181	0.963	
4	4	204	1400	✓	3.1			✓	✓				1407	0.442	
5	5	205	1000	✓	4.0								1321	0.255	
6	6	206	800	✓ 1481	4.5								1481	0.289	
7	7	207	600	✓	5.2	✓							2084	0.488	
8	8	208	500	✓	5.6								1180	0.805	
9	9	209	400	✓	6.0		✓						1476	1.365	
10	10	210	300	✓	6.4					✓	✓	✓	1365	2.188	
11	11	211	200	✓	7.2								2086	3.116	
12	12	212	150	✓	7.9								4376	4.906	
13	13	213	125	✓	7.9								1387	5.506	
14	14	214	100	✓	8.5				✓				1406	5.994	
15	15	215	90	✓	8.7								2033	5.997	
16	16	216	65	✓	8.9								638	5.938	
17	17	217	36	✓	10.1						✓	✓	1411/1464	6.101	
18	18	218	30	✓	10.3				✓		✓		1123	6.263	
19	19	219	20	✓	12.4					✓	✓		2065	6.343	
20	20	220	5	✓	12.8							381	3207	6.280	
21	21	221	0	✓	12.8					✓	✓		2069	6.273	
22	22	222	2200	✓											
23															
24					NN	NN	NN	MH	WE	DI	CS	LJ			

Watchkeeper(s): MR/H.A.

Bottom Depth: 2730 m

Transmisso Cleaned: (Y) / N

	UTC	Local
Start	1807	1107
Bottom	1851	1151
End	1951	1251

Positional Information

Start

Lat: 51 ° 01.18 N

Lon: 132 ° 10.91 W

Bottom

Lat: 51 ° 01.25 N

Lon: 132 ° 01.82 W

End

Lat: 51 ° 01.33 N

Lon: 132 ° 10.86 W

THO = 0.222379

Oxygen Info For This Cast

Blank Value: 0.00083 mL · L⁻¹

Std Value: 0.53766 mL · L⁻¹

*Date Run: 24|07|10

Analyst: N2

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

Water Properties Group

TMR
Rosette Log

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

Cruise ID: 2010-36 Station: H66Event #: 27Ship: TullyUTC Date (dd mmm yyyy): 25 Jul 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	247	1800			✓				
2	2	248	1400			✓				
3	3	249	1000			✓				
4	4	250	800			✓				
5	5	251	500			✓				
6	6	252	270			✓				
7	7	253	200			✓				
8	8	254	150			✓				
9	9	255	100			✓				
10	10	256	70			✓				
11	11	257	50			✓				
12	12	258	20			✓				
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s):
18, CS, ERBottom Depth: 2734 mTransmissio Cleaned: ✓ Y / N

Time	UTC	Local
Start	0950	0250
Bottom	1035	
End	1135	

Positional Information

Start
Lat: 52 ° 11.980 N
Lon: 133 ° 27.019 WBottom
Lat: 52 ° 12.007 N
Lon: 133 ° 26.996 WEnd
Lat: 52 ° 11.999 N
Lon: 133 ° 26.998 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: 2610-36 Station: HG 6 Event #: 25 Ship: TULLY UTC Date (dd|mmm|yyyy): 25 | 07 | 10

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken										Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	Chl PHYC _a	NH4 _{HPLC}	DIC	DOC _{CDom}	O ₂	pH	TRIP _{O2}	
1	223	3084	2.255	B-10	☒	2766	✓				✓			✓		T.B. Sampled O ₂ 1-12
2	224	3028	1.592	2200	☒			✓								
3	225	1316	1.031	1800	☒											
4	226	2007	0.501	1400	☒											
5	227	3069	0.264	1000	☒											
6	228	3108	0.328	800	☒		✓									redraw O ₂ 1st dup. 3/24 0.332
7	229	3126	0.823	600	☒									✓		
8	230	2082	0.999	500	☒											btl compromised vent open
9	231	2073	1.428	400	☒											
10	232	3180	2.321	300	☒		✓					✓	✓			slow drip vent valve not tight redraw O ₂
11	233	2019	3.399	200	☒											
12	234	3043	4.769	150	☒						✓					
13	235	2055	5.811	125	☒											Marie Sampled O ₂
14	236	1498	6.065	100	☒											
15	237	1477	6.110	90	☒											
16	238	668	6.342	50	☒	MAT+10	✓		✓	✓						1174-
17	239	622	6.614	37	☒	CHL MAY	10.3		✓	✓		✓				
18	240	1367	6.637	30	☒		11.4									
19	241	657	6.369	20	☒		12.3					✓	✓			
20	242	715	6.368	5	☒		12.4		✓						✓	888 triple O ₂
21	243	1389	6.366	5	☒		12.3		✓	✓	✓	✓	✓	✓		
22	244			5	☒											LIZZIE
23	245			5	☒											LIZZIE
24	246	1313	6.361	0	☒		12.3	✓			✓		✓	✓		

Watchkeeper(s): AK/DI/MR

Bottom Depth: 2738 m

Transmisso Cleaned: ☒ / N

Time	UTC	Local
Start	0653	2353
Bottom	0731	0031
End	0836	0136

Positional Information

Start Lat: 52 ° 11.98 N
Lon: 133 ° 27.05 W

Start

Bottom

End

Lat: 52 ° 12.00 N
Lon: 133 ° 26.98 W

Lat: 52 ° 11.99 N
Lon: 133 ° 26.99 W

Oxygen Info For This Cast

Blank Value: 0.00073 mL ✓
Std Value: 0.53752 mL ✓
*Date Run: 25 | 07 | 10
Analyst: N2

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

TB/MR MR GC TD TB GC CP CS TB GC LJ

Water Properties Group

Biology Rosette Rosette Log

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

Cruise ID: 2010-36 Station: HG 4 Event #: 29 Ship: TULLY UTC Date (dd|mmm|yyyy): 25 | JUL | 2010

Firing #	Niskin #	Sample #	Rosette Operation			Samples Taken								Oxygen Titrations		Comments		
			Target Pressure	Confirmed ✓ Pressure		Oxy	Nut	Sal	HPLC	Chl	Phylo	Macro	LARV				Flask Serial #	Value mL • L ⁻¹
1	1	259	PIC	✓	60								✓					
2	2	260	PIC	✓	60								✓					
3	3	261	CM-10	✓	25					✓✓	✓✓							
4	4	262	Chl M	✓	13					✓✓	✓✓							
5	5	263	Chl M	✓	13								✓					
6	6	264	Chl M	✓	13								✓					
7	7	265	15	✓	13								✓					
8	8	266	5	✓									✓					
9	9	267	5	✓									✓					
10	10	268	5	✓										✓	✓			
11	11	269	5	✓						✓✓	✓✓	✓✓						
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Watchkeeper(s): MR

Bottom Depth: 2920 m

Transmisso Cleaned: (Y) / N

	UTC	Local
Start	1743	1043
Bottom	1750	1050
End	1800	1100

Positional Information

Start

Lat: 52 ° 32.97 N

Lon: 132 ° 42.03 W

Bottom

Lat: 52 ° 33.00 N

Lon: 132 ° 41.99 W

End

Lat: 52 ° 32.98 N

Lon: 132 ° 42.01 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: 2010-36 Station: HG 4 Event #: 30131 Ship: TULLY UTC Date (dd|mmm|yyyy): 25 | 07 | 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	018	PH			
1	270	860	2.292	810	✓	2953	✓				✓		✓			
2	271	861	2.057	2600	✓			✓			✓					
3	272	862	1.626	2200	✓											CAST 30
4	273	863	1.107	1800	✓											SPIGOT LEAK
5	274	864	0.521	1400	✓											865-3.3 0.508
6	275	866	0.282	1000	✓											
7	276	867	0.297	800	✓								✓			
8	277	868	0.440	600	✓											
9	278	869	0.654	500	✓		✓									
10	279	870	1.036	400	✓											
11	280	871	1.752	300	✓							✓				
12	281	872	2.792	200	✓											873-6.7 2.794
13	282	874	3.781	150	✓											
14	283	875	4.171	125	✓											
15	284	876	5.273	100	✓											
16	285	877	5.615	90	✓								✓			CAST 31
17	286	878	6.257	70	✓											
18	287	879	6.498	40	✓											
19	288	880	6.625	20	✓							✓				
20	289	881	6.761	5	✓			✓								
21	290	882	6.766	0	✓							✓				
22																
23																
24						NN		DI			MH	DI	WE			

Watchkeeper(s): H.M.

Bottom Depth: 2930 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1843	1143
Bottom	1932	1232
End	2043	1343

Positional Information

Start

Lat: 52 ° 33.77 N

Lon: 132 ° 43.02 W

Bottom

Lat: 52 ° 33.75 N

Lon: 132 ° 42.94 W

End

Lat: 52 ° 33.74 N

Lon: 132 ° 43.00 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

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36

Station: HG 2

Event #: 33/34/35

Ship: TULLY

UTC Date (dd|mmm|yyyy): 25 | 07 | 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	chl a DIC	PH	O ₃			triple	
1	291	1490	0.975	B-10	✓ 1617	✓ 3.1	✓				✓	✓				
2	292	1144	0.491	600	✓	5.1		✓								
3	293	3181	0.608	500	✓	5.5 5.4										
4	294	1321	0.806	400	✓	missed										
5	295	1481	1.320	300	✓	6.0						✓				
6	296	2084	2.442	200	✓	6.4				✓						
7	297	1180	3.246	150	✓	7.0										
8	298	1476	3.245	150	✓	7.0 ^{7.0}										
9	299	2086	5.357	100	✓	7.7										
10	300	487	5.549	90	✓	7.7	✓									
11	301	650	5.971	70	✓	8.0										
12	302	1387	6.089	35	✓	9.2			✓✓	✓✓						* did took some HPLC first
13	303	1406	6.534	20	✓	10.7			✓✓	✓✓		✓				* both 12+13
14	304	2033	6.566	5		12.2		✓	✓✓	✓✓		✓✓			898	
15	305	638	6.563	0		12.2	✓				✓	✓	✓			
16	306			125												LIZZY
17	307	1464	3.757	125	✓	7.3										
18																
19																
20																
21																
22																
23																
24						NN JBC				MH MH WE					LJ	

Watchkeeper(s): H.M.

Bottom Depth: 1570 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0034	1734
Bottom	0105	1805
End		

Positional Information

Lat: 52 ° 43.16 N

Lon: 132 ° 17.87 W

Start

Bottom

End

Lat: 52 ° 43.19 N

Lon: 132 ° 17.99 W

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

Water Properties Group

TMR
Rosette Log

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

Cruise ID: Station: W2 Event #: 39 Ship: Tully UTC Date (dd mmm yyyy): 27 Jul 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	O ₂	TH	WBC	TH		Flask Serial #	Value mL · L ⁻¹	
1	1	322	120			✓			✓						
2	2	323	120			✓		✓	✓						
3	3	324	100			✓			✓						
4	4	325	90			✓			✓						
5	5	326	70			✓			✓						
6	6	327	50			✓		✓	✓						
7	7	328	40			✓			✓						
8	8	329	30			✓			✓						
9	9	330	20			✓		✓	✓						
10	10	331	15			✓		✓	✓						
11	11	332	10			✓		✓	✓						
12	12	333	10			✓		✓	✓						
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s):
1A, ER, CS

Bottom Depth: 153 m
Transmisso Cleaned: ✓ Y / N

Time	UTC	Local
Start	1100	0400
Bottom	1108	0408
End	1122	0422

Positional Information
Start
Lat: 56 ° 15.180 N
Lon: 135 ° 01.505 W

Bottom
Lat: 56 ° 15.194 N
Lon: 135 ° 01.463 W

End
Lat: 56 ° 15.211 N
Lon: 135 ° 01.457 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: 2010-36 Station: HG1 Event #: 36 Ship: TOLU UTC Date (dd|mmm|yyyy): 26 | 07 | 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	HH HPLC	PHYD	PH	DC ALK	DOC CDOM	O18	
1	308			8-10	☒ 450	15.0										
2	309			250	☒	5.6		☒								
3	310			200	☒	5.9								☒	☒	
4	311			150	☒ 6 th	6.3						☒				
5	312			100	☒	7.3										
6	313			90	☒	7.6	☒						☒			
7	314			70	☒	7.9										
8	315			15	☒	10.9										
9	316			10	☒	11.0						☒		☒	☒	
10	317			5		11.0		☒			xx			☒		786 trip 0 L.J.
11	318			0		11.1	☒					☒		☒	☒	
12	319			5					xx	xx						
13	320			CHL+ / 20	☒				xx	xx						
14	321			CHL+ / 10	☒				xx	xx						
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): H.A.

Bottom Depth: _____ m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0300	2000
Bottom	0310	
End	0328	

Positional Information

Start

Lat: 52 ° 45.65 N

Lon: 132 ° 13.49 W

Bottom

Lat: 52 ° 45.65 N

Lon: 132 ° 13.41 W

End

Lat: 52 ° 45.67 N

Lon: 132 ° 13.41 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: 2010-36 Station: W2

Event #: 41

Ship: Tully

UTC Date (dd mmm yyyy): 27 07 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	PH	DIC / Aik	HPLC	chl	018	DOC	CDomphyto	Flask Serial #	Value mL · L ⁻¹	
1	1	334	B-10	✓	142	✓ 6.2									1477	2.693	
2	2	335	130	✓	~135?	6.2							✓		3028	2.714	Sal + nut + chl + 018 + DOC / CDOM
3	3	336	120	✓		6.4	✓	✓							1316	2.916	
4	4	337	100	✓		6.6		✓							2007	3.287	
5	5	338	90	✓		7.1						✓			3069	3.973	
6	6	339	70	✓		7.6									3108	4.546	
7	7	340	50	✓		8.6									3124	5.591	
8	8	341	40	✓		8.7	✓								2073	5.732	
9	9	342	30	✓		9.2		✓		✓	✓				3180	5.995	
10	10	343	25	✓		9.5									2019	6.184	3126-6.183
11	11	344	20	✓		9.7			✓	✓	✓		✓		3043	6.254	
12	12	345	15	✓		9.9			✓						2082	6.410	
13	13	346	10	✓		10.2						✓	✓		2055	6.514	
14	14	347	5	✓		10.1	✓			✓	✓		✓		3084	6.531	TRIPLE O
15	15	348	0	✓		10.2	✓		✓			✓	✓		1498	6.520	
16	16	349	Pyc	✓	35												MARCOS
17	17	350	Pyc	✓	35												MARCOS
18	18	351	chlmax	✓	20												
19	19	352	chlmax	✓	20												MARCOS
20	20	353	chlmax	✓	20												MARCOS
21	21	354	5	✓													MARCOS
22	22	355	5	✓													MARCOS
23	23	356	5	✓													LIZZY
24	24	357	5	✓													LIZZY

Watchkeeper(s): MR

Bottom Depth: 152 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1207	0507
Bottom	1212	0512
End	1230	0530

Positional Information

Start	Lat: 56 ° 15.17	N
	Lon: 135 ° 01.59	W
Bottom	Lat: 56 ° 15.18	N
	Lon: 135 ° 01.57	W
End	Lat: 56 ° 15.16	N
	Lon: 135 ° 01.54	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

TB SAMPLE
MR PICKLE

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: W5 Event #: 44 Ship: TULCY UTC Date (dd mmm yyyy): 27 | 07 | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	pH	CHL HPLC	ph-7.0	O ₁₈	CDOM DOC	3+0	Flask Serial #	Value mL · L ⁻¹	
1	1	358	Bot-10	✓	300	✓		✓	✓						1490	1.230	1411-1.229
2	2	359	300	✓		✓	✓								1144	1.206	
3	3	360	250	✓					✓						3181	2.243	
4	4	361	200	✓				✓							1407	2.667	
5	5	362	175	✓											1321	2.792	
6	6	363	150	✓											1481	3.729	
7	7	364	125	✓								✓			2084	4.752	
8	8	365	100	✓											1180	5.369	
9	9	366	90	✓											1476	5.558	
10	10	367	80	✓											1365	5.567	
11	11	368	70	✓											2086	5.746	
12	12	369	50	✓											437	6.072	
13	13	370	30	✓										✓	650	6.495	
14	14	371	20	✓										✓	1387	6.493	1406-6.491
15	15	372	5	✓			✓	✓	✓			✓		✓	2033	6.497	
16	16	373	MAX-10	✓	50					✓							
17	17	374	CHI MAX	✓	30					✓							
18	18	375	5	✓						✓	✓						
19	19	376	0	✓								✓					
20																	
21																	
22																	
23																	
24						N ₂	500	C	60	TB	TB						

Watchkeeper(s):
MRBottom Depth: 308 mTransmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1525	0825
Bottom	1532	0832
End	1552	0852

Positional Information

Start	Lat: 56 ° 07.06	N
	Lon: 135 ° 21.23	W
▼		
Bottom	Lat: 56 ° 07.06	N
	Lon: 135 ° 21.25	W
▼		
End	Lat: 56 ° 07.05	N
	Lon: 135 ° 21.24	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

TMR
Rosette Log

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

Cruise ID: 2010-36 Station: W7Event #: 48Ship: TullyUTC Date (dd mmm yyyy): 27 Jul 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	TM	O ₂	URC TM			Flask Serial #	Value mL · L ⁻¹	
1	1	399	700			✓	✓	✓							
2	2	400	600			✓		✓							
3	3	401	500			✓		✓							
4	4	402	400			✓		✓							
5	5	403	300			✓		✓	✓						
6	6	404	200			✓		✓							
7	7	405	150			✓	✓	✓	✓						
8	8	406	125			✓		✓							
9	9	407	100			✓		✓	✓						
10	10	408	70			✓		✓							
11	11	409	50			✓		✓	✓						
12	12	410	12			✓	✓	✓	✓						
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s):
IB, ER, CSBottom Depth: 790 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1911	1211
Bottom	1929	1229
End		

Positional Information

Start	Lat: 56 ° 01.646	N
	Lon: 135 ° 34.445	W
Bottom	Lat: 56 ° 01.649	N
	Lon: 135 ° 34.411	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

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: W7 Event #: 47 Ship: TULLY UTC Date (dd|mmm|yyyy): 27 | 07 | 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 HPLC	Myk	018	ALK DIC	pH	310	
1	377	860	0.327	800	✓	796	✓									
2	378	↓	0.362	700	✓			✓					✓			
3	379		0.382	600	✓											Leaking on 3 vent was open
4	380		0.549	500	✓									✓		
5	381		0.886	400	✓							✓				
6	382		1.328	300	✓											
7	383		2.775	200	✓											
8	384		4.558	150	✓											
9	385		4.354	125	✓											
10	386		5.482	100	✓											
11	387		5.927	90	✓											Leaking on 11 vent was open
12	388		6.152	75	✓									✓		
13	389		6.022	50	✓											
14	390		6.104	30	✓											
15	391		6.389	20	✓							✓				
16	392		6.541	5			✓	✓							✓	
17	393		6.540	0			✓					✓	✓	✓		
18	394			MAX-10	✓				✓	✓						
19	395			C MAX 12					✓	✓						
20	396			5					✓	✓	✓					
21	397			5												Lizzy
22	398			3												Lizzy
23																
24						NN			MH	MH	MH		MD	WE	LJ	

Watchkeeper(s): MR/HM

Bottom Depth: 796 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1808	1108
Bottom	1829	1129
End	1902	1202

Positional Information

Start Lat: 56 ° 01 62 N
Lon: 135 ° 34 46 W

Bottom Lat: 56 ° 01.62 N
Lon: 135 ° 34 47 W

End Lat: 56 ° 01.63 N
Lon: 135 ° 34.44 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

Nutrients = Red

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: W12Event #: 54Ship: TULLYUTC Date (dd mmm yyyy): 28 | 07 | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken							Oxygen Titrations		Comments	
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	TM	O ₂	WBC TM	Flask Serial #	Value mL • L ⁻¹			
1	1	456	2000			✓	✓	✓		✓					
2	2	457	1400			✓		✓✓							
3	3	458	1000			✓		✓		✓					
4	4	459	800			✓		✓							
5	5	460	600			✓	✓	✓✓							
6	6	461	375			✓	✓	✓✓	✓	✓					
7	7	462	200			✓		✓							
8	8	463	150			✓		✓	✓						
9	9	464	100			✓		✓		✓					
10	10	465	60			✓		✓	✓						
11	11	466	20			✓		✓✓	✓						
12	12	467	10			✓	✓	✓	✓	✓					
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s): Ian B/ER/CSBottom Depth: 2812 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>1035</u>	<u>0335</u>
Bottom	<u>1149</u>	<u>0449</u>
End	<u>1336</u>	<u>0636</u>

Positional Information

Start
Lat: 55 ° 18.548 N
Lon: 137 ° 09.042 WBottom
Lat: 55 ° 18.604 N
Lon: 137 ° 09.121 WEnd
Lat: ° N
Lon: ° 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: 2010-36 Station: W 8 Event #: 49 Ship: TULLY UTC Date (dd|mmm|yyyy): 27 | 7 | 10

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken			Chl a	NH ₄ HALC	PAR10	O18	ALT DC	PH	Temp	Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal								
1	411	94	0.640	8-10	✓ 1300	✓ 13.3	✓						✓	✓		
2	412	1314	0.535	1200	✓	13.1		✓								
3	413	1247	0.376	1100	✓	13.5										
4	414	1473/1300	0.324	1000	✓	✓ 13.2										
5	415	1307	0.297	900	✓	4.2										
6	416	1318	0.407	600	✓	4.6										
7	417	1330	0.620	500	✓	4.9										O2 redone after other sampling
8	418	1338	0.960	395	✓	4.9							✓			
9	419	1392	1.189	325	✓	5.6					✓					
10	420	1397	2.945	200	✓	5.9										
11	421	1408	3.718	150	✓	6.8										
12	422	1488	4.136	125	✓	7.0							✓			
13	423	3033	5.123	100	✓	7.0										
14	424	708	6.317	90	✓	6.8	✓									
15	425	1322	5.970	75	✓	7.2							✓			
16	426	3016	6.025	50	✓	7.9										
17	427	3055	6.452	30	✓	9.5										bot cast cleaned grease of 6 spigot
18	428	3203	6.586	20	✓	10.7		✓								
19	429	2051	6.572	5	✓	12.0						✓				
20	430	745	6.508	0	✓	11.9	✓				✓					
21	431			cm + 10	✓ 30				✓✓	✓✓						
22	432			CM	✓ 20				✓✓	✓✓						
23	433			5	✓				✓✓	✓✓	✓✓					
24						HM			MH	MH	MH		MD	WE	LJ	

Watchkeeper(s): H.A. DI

Bottom Depth: 1303 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	20:43	13:43
Bottom	21:00	14:00
End	21:43	

Positional Information

Start

Lat: 55 ° 59.04 N

Lon: 135 ° 41.32 W

Bottom

Lat: 55 ° 59.03 N

Lon: 135 ° 41.38 W

End

Lat: 55 ° 59.02 N

Lon: 135 ° 41.41 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

NUTS - GREEN CASE

Biology Rosette.

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: W12 Event #: 58 Ship: TULLY UTC Date (dd|mmm|yyyy): 28|07|2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			Oxygen Titrations					Comments			
			Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	HPL	CHL	phyto	Marrios	Flask Serial #		Value mL · L ⁻¹		
1	1	468	PIC	☒	40							☒				
2	2	469	PIC	☒	40							☒				
3	3	470	cm-10	☒	30				☒	☒	☒					
4	4	471	chl-M	☒	25				☒	☒	☒	☒				
5	5	472	chl-M	☒	25							☒				
6	6	473	chl-M	☒	25							☒				
7	7	474	15	☒								☒				
8	8	475	5	☒								☒				
9	9	476	5	☒								☒				
10	10	477	5	☒												Lizzy
11	11	478	5	☒												Lizzy
12	12	479	5	☒					☒	☒	☒					
13			5													
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s):
MRBottom Depth: 2808 mTransmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1518	0818
Bottom	1525	0825
End	1536	0836

Positional Information

Start
Lat: 55 ° 18. 71 N
Lon: 137 ° 08 98 WBottom
Lat: 55 ° 18. 69 N
Lon: 137 ° 08 98 WEnd
Lat: 55 ° 18. 64 N
Lon: 137 ° 09 03 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: 2010-36 Station: DE9 Event #: 59 Ship: Tully UTC Date (dd|mmm|yyyy): 29 Jul 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	504	2000			✓	✓	✓		
2	2	505	1400			✓		✓		
3	3	506	1000			✓		✓		
4	4	507	800			✓		✓		
5	5	508	600			✓		✓		
6	6	509	400			✓	✓	✓		
7	7	510	200			✓		✓		
8	8	511	150			✓		✓		
9	9	512	100			✓		✓		
10	10	513	50			✓		✓		
11	11	514	20			✓		✓		
12	12	515	10			✓	✓	✓		
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s): 18, C.S.E.R.Bottom Depth: 2857 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0535	2235
Bottom	0624	2324
End	0720	2428

Positional Information

Start
Lat: 53 ° 48.358 N
Lon: 135 ° 35.981 WBottom
Lat: 53 ° 48.19 N
Lon: 135 ° 35.99 WEnd
Lat: 53 ° 48.34 N
Lon: 135 ° 35.97 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: 2010-36 Station: W12 Event #: 57 Ship: TULLY UTC Date (dd mmm yyyy): 28 07 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	PH	D18	Doc C _{DOM}	Triple O ₂	Flask Serial #	Value mL · L ⁻¹	
1	1	434	Bot-10	✓	2860	2.3	✓	✓	✓						
2	2	435	2600	✓	2600	3.3	✓	✓	✓						
3	3	436	2200	✓	2200	3.7	✓	✓	✓						redraw O ₂
4	4	437	1800	✓		3.5	✓	✓	✓						
5	5	438	1400	✓		4.0	✓	✓	✓						
6	6	439	1000	✓		4.5	✓	✓	✓						
7	7	440	800	✓		5.1	✓	✓	✓						
8	8	441	600	✓		5.3	✓	✓	✓						redraw for O ₂
9	9	442	500	✓		5.4	✓	✓	✓						
10	10	443	400	✓		5.6	✓	✓	✓						
11	11	444	300	✓		5.5	✓	✓	✓						
12	12	445	200	✓		6.7	✓	✓	✓						
13	13	446	150	✓		6.9	✓	✓	✓						
14	14	447	125	✓		7.0	✓	✓	✓						bottom of 14 leaking
15	15	448	100	✓		7.3	✓	✓	✓						redraw O ₂
16	16	449	90	✓		7.4	✓	✓	✓						
17	17	450	70	✓		7.6	✓	✓	✓						
18	18	451	50	✓		8.6	✓	✓	✓			668			Dropping Am back of spigot
19	19	452	25	✓		11.1	✓	✓	✓		xx	473			
20	20	453	7.0	✓		11.8	✓	✓	✓		xx				
21	21	454	5	✓		12.1	✓	✓	✓			392			
22	22	455	0	✓		12.1	✓	✓	✓		xx				
23															
24															

Watchkeeper(s):
MR / TB

Bottom Depth: 2815 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1612	0912
Bottom	1712	1012
End	1825	1125

Positional Information

Start	Lat:	55 ° 18.60	N
	Lon:	137 ° 09.00	W
Bottom	Lat:	55 ° 18.58	N
	Lon:	137 ° 09.01	W
End	Lat:	55 ° 18.54	N
	Lon:	137 ° 09.04	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

NOTES: RED RACK

* bottles sampled in reverse order (1 was sampled first - at end of cast ↑ to 4.2)

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: DE 9 Event #: 60 Ship: TULLY UTC Date (dd|mmm|yyyy): 29 | JUL | 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	PIC ALK	PH	DO	ST O ₂	DOC CDOM	
1	480			B-10	✓ 2890	✓ 2.5	✓	✓			✓	✓				
2	481			2600	✓	2.4					✓					
3	482			2200	✓	2.6										
4	483			1800	✓	2.8										
5	484			1400	✓ 1400	✓ 3.5										
6	485			1000	✓ 1000	4.0										
7	486			800	✓ 800	4.4										
8	487			600	✓	5.2					✓					
9	488			500	✓	5.3						✓				
10	489			400	✓	5.7							✓		✓	
11	490			300	✓	6.1	✓									
12	491			200	✓	6.6	TA									
13	492			150	✓	7.0						✓				
14	493			125	✓	7.0										
15	494			100	✓	7.2										
16	495			90	✓	7.3										
17	496			70	✓	7.9										
18	497			50	✓	8.7										
19	498			30	✓ 25	11.1			✓	✓					✓	
20	499			20	✓ 10	11.9			✓	✓			✓		✓	
21	500			5	✓	12.1			✓	✓				✓		
22	501			0	✓	12.1			✓	✓			✓		✓	TOP VALUE OPEN COMPROMISED
23	502			5	✓											
24	503			2200	✓			MR	TD	TEMP	TEMP	CP	GC	TD	LS	LS

Watchkeeper(s): MR

Bottom Depth: 2858 m

Transmissio Cleaned: (Y) / N

Time	UTC	Local
Start	0757	0057
Bottom	0849	0149
End	1002	0302

Positional Information

Start	Lat: <u>53 ° 48.23</u>	N
	Lon: <u>135 ° 36.08</u>	W

Bottom

Lat: <u>53 ° 48.24</u>	N
Lon: <u>135 ° 36.09</u>	W

End

Lat: <u>53 ° 48.40</u>	N
Lon: <u>135 ° 36.14</u>	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

NUTS - YELLOW RACK

TANIA DRAWS
MR PICKLES

Biology Rosette

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: DE 6 Event #: 64 Ship: TULLY UTC Date (dd mmm yyyy): 29 07 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	516	Pic	✓	30								
2	2	517	Pic	✓	30								
3	3	518	CM-10	✓	25								
4	4	519	chl-M	✓	12								
5	5	520	chl-M	✓	12								
6	6	521	chl-M	✓	12								
7	7	522	15	✓							486		
8	8	523	5	✓									
9	9	524	5	✓									
10	10	525	5	✓									
11	11	526	5	✓									
12	12	527	5	✓							907 785		
13	13	528	0	✓									
14													
15													
16													PAR SENSOR OFF
17													
18													
19													
20													
21													
22													
23													
24													

Watchkeeper(s): HM, DI

Bottom Depth: 2363 m

Transmisso Cleaned: (Y) 1 N

Time	UTC	Local
Start	19:18	12:18
Bottom	19:21	12:21
End	19:31	12:31

Positional Information

Start

Lat: 54 ° 06.47 N

Lon: 134 ° 15.28 W

Bottom

Lat: 54 ° 6.51 N

Lon: 134 ° 15.27 W

End

Lat: 54 ° 06.54 N

Lon: 134 ° 15.28 W

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹

Std Value: _____ mL · L⁻¹

*Date Run: 1 1 1

Analyst: J

* 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: 2010-36 Station: DE4 Event #: 67 Ship: Tully UTC Date (dd mmm yyyy): 30 Jul 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	SS0	400			✓	✓	✓								
2	2	SS1	400			✓	✓	✓								
3	3	SS2	300			✓		✓								
4	4	SS3	250			✓		✓								
5	5	SS4	200			✓	✓	✓								
6	6	SS5	150			✓		✓								
7	7	SS6	125			✓		✓								
8	8	SS7	100			✓		✓								
9	9	SS8	70			✓		✓								
10	10	SS9	50			✓		✓								
11	11	SS0	20			✓		✓								
12	12	SS1	10			✓		✓								
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s):
1/3Bottom Depth: 444 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>0052</u>	
Bottom	<u>0106</u>	
End		

Positional Information

Start	Lat: <u>54° 12.72</u>	N
	Lon: <u>133° 49.50</u>	W
Bottom	Lat: <u>54° 12.68</u>	N
	Lon: <u>133° 49.51</u>	W
End	Lat: <u>°</u>	N
	Lon: <u>°</u>	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: 2010-36

Station: DE 5

Event #: 66

Ship: TULLY

UTC Date (dd|mmm|yyyy): 29 | 7 | 10

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken			Chl a	NH ₄ N	PHYTO	DIC ALK	PH	O ₂	Temp	Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal								
1	529			B-10	?	18.11	✓	✓								see log/did not fire
2	530			1400	✓			✓								redraw O ₂
3	531			1000	✓											redraw O ₂
4	532			800	✓											
5	533			600	✓								✓			
6	534			500	✓						✓					
7	535			400	✓									✓		
8	536			300	✓											
9	537			200	✓											
10	538			150	✓											
11	539			125	✓								✓			
12	540			100	✓											
13	541			90	✓											
14	542			70	✓						✓					
15	543			50	✓											
16	544			30	✓											
17	545			17*	✓											
18	546			5	✓									✓		
19	547			0	✓									✓		
20	548			5	✓	chlmax				✓✓	✓✓	✓✓			79.6	
21	549			15	✓	chlmax+10				✓✓	✓✓					
22																
23																
24							NN	JBC		MH	MH	MH	MD	WE	DI	

Watchkeeper(s): H.M. D.L.

Bottom Depth: 1850 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	22:30	15:30
Bottom	23:00	16:00
End		

Positional Information

Start

Lat: 54 ° 09.50 N

Lon: 134 ° 02.26 W

Bottom

Lat: 54 ° 09.50 N

Lon: 134 ° 02.23 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

NUTS GREEN RACK

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36

Station: D64

Event #: 68

Ship: TULLY

UTC Date (dd|mmm|yyyy): 30 | 07 | 10

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken			Chl a	NH ₄ HPLC	PHYTO	DIC ALK	PH	OIB	TIN	Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal								
1	562	2065		B-10	✓ 435	✓ 5.1	✓					✓	✓			
2	563	3207		400	✓	✓ 5.4		✓				✓	✓			
3	564	2068/3007		300	✓	✓ 5.7						✓	✓			
4	565	650		250	✓	6.0						✓	✓			
5	566	437		200	✓	6.3						✓	✓			
6	567	1406		175	✓	6.6	✓					✓	✓			
7	568	2033		150	✓	6.7						✓	✓			
8	569	638		125	✓	7.0						✓	✓			
9	570	1411		100	✓	7.3						✓	✓			
10	571	1464		90	✓	7.4						✓	✓			
11	572	1123		80	✓	7.7						✓	✓			
12	573	2084		70	✓	8.0						✓	✓			
13	574	1180		50	✓	8.7						✓	✓			
14	575	1476		30	✓	10.0						✓	✓			
15	576	1365		20	✓	11.5						✓	✓			
16	577	2086		10	✓	12.8						✓	✓			
17	578	1490		5	✓	12.5	✓	✓				✓	✓			
18	579	1144		0		12.5	✓					✓	✓			
19	580			CM + 10	18 ✓				✓✓	✓✓						
20	581			CHL MAX	8 ✓				✓✓	✓✓						
21	582			5	✓				✓✓	✓✓	✓✓				✓ 368	
22																
23																
24																

Watchkeeper(s): H.M./D.I.

Bottom Depth: 440 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0141	1841
Bottom	0148	1848
End	0212	1912

Positional Information

Start Lat: 54 ° 12.81 N

Lon: 133 ° 49.51 W

Bottom Lat: 54 ° 12.90 N

Lon: 133 ° 49.51 W

End Lat: 54 ° 12.77 N

Lon: 133 ° 49.53 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

JEB-C

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36

Station: DE 2

Event #: 72

Ship: Tully

UTC Date (dd|mmm|yyyy): 30 | 07 | 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	AM ₄ HPLC	DIC ALK	pH	013	PH ₁₀	3 ₀₂	DOC CDOM	
1	583	1477		B-10	✓ 395	✓ 5.5	✓				✓	✓					
2	584	3028		300	✓	5.7		✓									
3	585	1316		200	✓	6.1							✓				✓
4	586	1313		150	✓	6.4					✓						
5	587	3069 ²⁰⁸		100	✓	✓ 6.9											
6	588	3124		90	✓	7.1											
7	589	2073		80	✓	7.5						✓					
8	590	3180		70	✓	7.9	✓										
9	591	2019		50	✓	9.7											
10	592	2126 ²⁰⁸ 3043		40	✓	✓ 10.0											
11	593	2083		30	✓	10.3					✓						
12	594	2055		20	✓	10.5						✓					
13	595	3084		15*	✓	10.6											✓
14	596	1498		10	✓	10.9											
15	597	668		5	✓	11.1		✓					✓				✓
16	598	1174		0	✓	11.3							✓				✓
17	599			CHL 10	✓ 15				✓✓	✓✓							dripping
18	600			CHL 10	✓ 5				✓✓	✓✓							
19	601			5	✓				✓✓	✓✓				✓✓	✓		
20																	
21																	
22																	
23																	
24									HM	HM	DI	MH	MH	MH	MD	WE	DI LJ

Watchkeeper(s): HM DL

Bottom Depth: 405 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	05:09	22:09
Bottom	05:15	22:15
End	05:35	22:35

Positional Information

Start

Lat: 54 ° 19.27 N

Lon: 133 ° 23.91 W

Bottom

Lat: 54 ° 19.23 N

Lon: 133 ° 23.91 W

End

Lat: 54 ° 19.21 N

Lon: 133 ° 23.94 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

NUTS - YELLOW

TM

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: DE-2 Event #: 73 Ship: Tully UTC Date (dd|mmm|yyyy): 30|Jul|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	602	335			✓		✓		
2	2	603	300			✓		✓		
3	3	604	250			✓		✓		
4	4	605	200			✓		✓		
5	5	606	175			✓		✓		
6	6	607	150			✓		✓		
7	7	608	125			✓		✓		
8	8	609	100			✓		✓		
9	9	610	70			✓		✓		
10	10	611	50			✓		✓		
11	11	612	20			✓		✓		
12	12	613	10			✓		✓		
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s):
IB, ER, CS

Bottom Depth: 370 m
Transmisso Cleaned: 1/2 Y / N

Time	UTC	Local
Start	<u>0601</u>	<u>2301</u>
Bottom	<u>0610</u>	<u>2310</u>
End	<u>0626</u>	<u>2326</u>

Positional Information
Start
Lat: 54 ° 19.212 N
Lon: 133 ° 24.030 W

Bottom
Lat: 54 ° 19.239 N
Lon: 133 ° 24.079 W

End
Lat: 54 ° 19.181 N
Lon: 133 ° 24.042 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

Normal + Biology Rosette

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: DED

Event #: 75

Ship: TULLY

UTC Date (dd|mmm|yyyy): 30|07|2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	PI4	HP/LC CHL	Thylo	OLB	tride	marcos	Flask Serial #	Value mL · L ⁻¹	
1		614	B-10	✓	325	5.9	✓	✓	✓								
2		615	250	✓		6.0	✓										
3		616	200	✓		6.2											
4		617	175	✓		6.4			✓			✓					
5		618	150	✓		6.5											
6		619	125	✓		6.7											
7		620	100	✓		7.0											
8		621	90	✓		7.1											
9		622	70	✓		7.4											
10		623	50	✓		7.7		✓									
11		624	30	✓		8.5											
12		625	chl-10	✓	15	10.5	✓			✓	✓						
13		626	chlmax	✓	5	10.5				✓	✓						
14		627	10	✓		10.1						✓					leaking from bottom seal T & DO likely not fixed @ 10m
15		628	5	✓		10.5	✓			✓	✓		✓				
16		629	0	✓		11.1	✓					✓					
17		630	Pic	✓	20									✓			
18		631	Pic	✓	20									✓			
19		632	chlmax		5									✓			not closed - not needed
20		633	chlmax		5									✓			" "
21		634	15	✓										✓			
22		635	5	✓										✓			
23		636	5	✓										✓			
24		637	5	✓										✓			Lizzy?

Watchkeeper(s):
Tania + Marie

Bottom Depth: 336 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	10:42	03:42
Bottom	10:48	03:48
End	11:14	04:14

Positional Information

Lat:	54 ° 25.48	N
Lon:	132 ° 17.91	W

Start

Bottom

End

Lat: 54 ° 25.48 N
Lon: 132 ° 17.91 W

Lat: 54 ° 25.48 N
Lon: 132 ° 17.94 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

TANIA SAMPLES
MR PICKLED

Nuts = Red

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: HSNEvent #: 76Ship: TullyUTC Date (dd|mmm|yyyy): 30|07|2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	DIC	pH	H ₄ C	chl _a	phyc	018	triple Oz	Flask Serial #	Value mL · L ⁻¹	
1	1	638	B-10	☒	60	7.5											New MnCl ₂ , take 3
2	2	639	60	☒		7.4											
3	3	640	50	☒		7.6											
4	4	641	40	☒		9.7											
5	5	642	30	☒		11.0											
6	6	643	20	☒		11.2											
7	7	644	15	☒		11.1											
8	8	645	10	☒		11.2											
9	9	646	5	☒		11.3											
10	10	647	0	☒		11.4											
11	11	648	5	☒													
12	12	649	15	☒													
13	13	650	20	☒													
14																	
15						N ²	MR	MR	LS	GC	TB	TB	TB	LS			
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s):
Tania + MarieBottom Depth: 73 mTransmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	17:50	10:50
Bottom	17:52	10:52
End	18:06	11:06

Positional Information

Start	Lat: 53° 55.93	N
	Lon: 131° 04.03	W
Bottom	Lat: 53° 55.92	N
	Lon: 131° 04.03	W
End	Lat: 53° 55.93	N
	Lon: 131° 04.04	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: 2010-36 Station: HSC Event #: 77 Ship: TULLY UTC Date (dd|mmm|yyyy): 31 | 7 | 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	TH ₄ HPLC	DC ALH	PH	PTSD	O ₁₈	37 02	
1	651	94		45	✓	45	9.5	✓									Jelly snout
2	652	1314		45	✓		9.6		✓						✓		
3	653	1247		40	✓		9.6										
4	654	1473		35	✓		9.9					✓					
5	655	1300		30	✓		10.3										
6	656	1307		20	✓		11.5	✓					✓				
7	657	1318/1330		15	✓		✓ 12.1 12.1										
8	658	1338		10	✓		12.7								✓		
9	659	1392		5	✓		13.2		✓								
10	660	1395		0	✓		13.2	✓							✓		
11	661			5	✓					✓	✓			✓		✓ 336	MH thinks there was a bubble
12	662			25	✓					✓	✓						
13	663			35	✓					✓	✓						
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s):
HM/D.L.

Bottom Depth: 51 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	00:03	17:03
Bottom	00:12	17:12
End	00:22	17:22

Positional Information

Start

Lat: 53 ° 12.12 N

Lon: 131 ° 02.74 W

Bottom

Lat: 53 ° 12.12 N

Lon: 131 ° 02.74 W

End

Lat: 53 ° 12.12 N

Lon: 131 ° 02.71 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: 2010-36

Station: HSI

Event #: 78

Ship: Tully

UTC Date (dd|mmm|yyyy): 31 | 7 | 10

FIRL #

	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 PH	DIC	ALK	CHK HPLC	O18	
1	1	664			B-10	✓ 75	11.4				✓					
2	2	665			70	✓	11.5		✓						✓	
3	3	666			50	✓	11.9									
4	4	667			50	✓	12.7									
5	5	668			40	✓	13.0				✓					
6	6	669			30	✓	13.3					✓				
7	7	670			25	✓	13.5									
8	8	671			20	✓	13.6	✓								
10	9	672			10	✓	14.1									
12	10	673			5	✓	14.7		✓							
16	11	674			0	✓	15.4	✓								
13	12	675			5	✓ 5				✓			✓✓	✓		
11	13	676			10	✓ Chlmax							✓✓			
9	14	677			20	✓ Chlmax							✓✓			
14	15	678			5	✓										} L1224
15	16	679			5	✓										
	17															
	18						TB									
	19						MR	MR	MR	TB	GC	LS	GC	TB	TB	
	20															
	21															
	22															
	23															
	24															

Watchkeeper(s): HAM / D1 MR

Bottom Depth: 80 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0721	0021
Bottom	0723	0023
End	0735	0035

Positional Information

Start

Lat: 52 ° 37.99 N

Lon: 131 ° 22.31 W

Bottom

Lat: 52 ° 37.99 N

Lon: 131 ° 22.28 W

End

Lat: 52 ° 37.97 N

Lon: 131 ° 22.24 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: 2010-36 Station: H55Event #: 79Ship: TULLYUTC Date (dd mmm yyyy): 31 7 10

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken									Oxygen Titrations		Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	DIC	pH					Flask Serial #	Value mL · L ⁻¹	
1	1	680	Bot-10	☒	111	16.3	☒		☒	☒						
2	2	681	100	☒		16.9	☒									Dup 7.0°C
3	3	682	90	☒		18.8	☒									
4	4	683	70	☒		10.4										
5	5	684	50	☒		11.7			☒							
6	6	685	40	☒		12.4										
7	7	686	30	☒		12.9										
8	8	687	20	☒		12.3										
9	9	688	15	☒		14.1										
10	10	689	10	☒		19.6		☒								
11	11	690	5	☒		15.2	☒									
12	12	691	0	☒		15.3		☒	☒							
13						TB		TB								
14						MR	MR	MR	L3	6L						
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s):
MR. TBBottom Depth: 123 mTransmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0946	0246
Bottom	0948	0248
End	1001	0301

Positional Information

Start
Lat: 52 ° 22.83 N
Lon: 131 ° 03.95 WBottom
Lat: 52 ° 22.81 N
Lon: 131 ° 03.96 WEnd
Lat: 52 ° 22.81 N
Lon: 131 ° 03.95 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: 2010-36 Station: AQ1 Event #: 80 Ship: TULLY UTC Date (dd|mmm|yyyy): 31 | JUL | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken							Oxygen Titrations		Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	DIC	pH	chl	3x0	Flask Serial #	Value mL · L ⁻¹	
1	1	692	Bot-10	☒	90	8.2	✓	✓	✓					- deep sampled after #11
2	2	693	90	☒	8.1	✓	✓	✓	✓					
3	3	694	80	☒	8.8	✓	✓	✓	✓					
4	4	695	70	☒	9.5	✓	✓	✓	✓					
5	5	696	50	☒	10.5	✓	✓	✓	✓					
6	6	697	40	☒	11.0	✓	✓	✓	✓					
7	7	698	30	☒	11.8	✓	✓	✓	✓					
8	8	699	20	☒	11.7	✓	✓	✓	✓					
9	9	700	15	☒	11.7	✓	✓	✓	✓					
10	10	701	10	☒	11.9	✓	✓	✓	✓					
11	11	702	5	☒	11.9	✓	✓	✓	✓					
12	12	703	0	☒	12.0	✓	✓	✓	✓					
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24						N2								

Watchkeeper(s):
MRBottom Depth: 108 mTransmisso Cleaned: ☒ Y / N

Time	UTC	Local
Start	1537	0837
Bottom	1540	0840
End	1552	0852

Positional Information

Start	Lat:	52 ° 49.83	N
	Lon:	130 ° 37.99	W
Bottom	Lat:	52 ° 49.83	N
	Lon:	130 ° 38.00	W
End	Lat:	52 ° 49.84	N
	Lon:	130 ° 38.01	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: 2010-36

Station: AQ2

Event #: 81

Ship: TULLY

UTC Date (dd|mmm|yyyy): 31 | JUL | 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	PH	HPLC	
1	704	1477	1.277	Bot-10	☒ 220	5.8	☒				☒	☒		
2	705	3028	1.311	200	☒	5.8		☒			☒			
3	706	1316	1.369	175	☒	5.9								
4	707	1313	1.520	150	☒	6.1								
5	708	3069	2.054	125	☒	6.4								NO BURGET ON 1ST RUN
6	709	3108	2.428	100	☒	6.7								
7	710	3124	2.710	90	☒	6.9								
8	711	2073	3.372	70	☒	7.7								
9	712	3180	5.205	50 *	☒	9.1						☒		
10	713	2019	6.247	40	☒	9.7								
11	714	3126	6.668	30	☒	10.1								
12	715	3043	6.865	20	☒	10.2								
13	716	2082	6.915	15	☒	10.3								
14	717	2055	7.029	10	☒	10.3								
15	718	3084	7.033	5	☒	10.4		☒						
16	719	1498	7.033	0	☒	10.4	☒				☒	☒		D=668 - 7.036
17	720			5	☒									LIZZY
18	721			5	☒									
19	722			5	☒									
20	723	1174	6.768	35	☒ CH. MAY	10.1			☒			☒		
21	724			50	☒									
22	725			15	☒				☒			☒		
23	726			30	☒									
24														

Watchkeeper(s):
MR

Bottom Depth: 230 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1807	1107
Bottom	1812	1112
End	1833	1133

Positional Information

Start
Lat: 52 ° 59 48 N
Lon: 130 ° 07 47 W

Bottom
Lat: 52 ° 59 46 N
Lon: 130 ° 07 49 W

End
Lat: 52 ° 59 48 N
Lon: 130 ° 07 55 W

Oxygen Info For This Cast

Blank Value: 0.00077 mL • L⁻¹
Std Value: 0.4507 mL • L⁻¹
*Date Run: 31 | JUL | 2010
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: 2010-36 Station: QCS7

Event #: 82

Ship: T-114

UTC Date (dd mmm yyyy): 01 Aug 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	727	1000							
2	2	728	800							
3	3	729	600							
4	4	730	500							
5	5	731	400							
6	6	732	300							
7	7	733	200							
8	8	734	150							
9	9	735	100							
10	10	736	50							
11	11	737	20							
12	12	738	5							
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s): IR, CS, ER

Bottom Depth: 1060 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0505	
Bottom	0534	
End		

Positional Information

Start Lat: 51° 37.168 N
Lon: 130° 46.117 W

Start

Bottom

Lat: 51° 37.175 N
Lon: 130° 46.220 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

Biology Rosette.

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: OACS8Event #: 83Ship: TullyUTC Date (dd mmm/yyyy): 01 | 08 | 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		739	Pic	✓	40							
2		740	Pic	✓	40							
3		741	max10	✓	30							
4		742	chl-m	✓	20							
5		743	chl-m	✓	20							
6		744	chl-m	✓	20							
7		745	15	✓								
8		746	5	✓								
9		747	5	✓								
10		748	5	✓								
11		749	5	✓								Lizzy
12		750	5	✓								Lizzy
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												

Watchkeeper(s):
MR/TBBottom Depth: 1965 mTransmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1619	0919
Bottom	1622	0922
End	1630	0930

Positional Information

Start
Lat: 50 ° 05.99 N
Lon: 130 ° 02.97 WBottom
Lat: 50 ° 05.99 N
Lon: 130 ° 02.96 WEnd
Lat: 50 ° 05.97 N
Lon: 130 ° 02.97 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

TMR

Water Properties Group

Rosette Log

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

Cruise ID: 200-36 Station: PACS 8 Event #: 84 Ship: Tully UTC Date (dd mmm yyyy): 01 08 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	751	1800			✓	✓	✓	✓	
2	2	752	1400			✓		✓		
3	3	753	1000			✓		✓		
4	4	754	800			✓	✓	✓		
5	5	755	600			✓		✓		
6	6	756	500			✓		✓		
7	7	757	300			✓	✓	✓	✓	
8	8	758	200			✓		✓		
9	9	759	150			✓		✓		
10	10	760	100			✓		✓	✓	
11	11	761	50			✓		✓		
12	12	762	10			✓	✓	✓	✓	
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s): 13, ER, CS

Bottom Depth: 1962 m
Transmisso Cleaned: ✓ Y / N

Time	UTC	Local
Start	<u>1650</u>	<u>0950</u>
Bottom	<u>1734</u>	<u>1034</u>
End	<u>1850</u>	<u>1150</u>

Positional Information		
Start	Lat: <u>50</u> ° <u>06.001</u>	<u>N</u>
	Lon: <u>130</u> ° <u>03.045</u>	<u>W</u>
Bottom	Lat: <u>50</u> ° <u>06.007</u>	<u>N</u>
	Lon: <u>130</u> ° <u>02.980</u>	<u>W</u>
End	Lat: <u>50</u> ° <u>05.992</u>	<u>N</u>
	Lon: <u>130</u> ° <u>02.996</u>	<u>W</u>

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: 700-36 Station: OACS 8 Event #: 85 Ship: JULY UTC Date (dd mmm/yyyy): 01 08 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	DIC	PH	DOC	CDOM	OR	triple O	MACAW	Flask Serial #	Value mL · L ⁻¹	
1	1	763	B-10	✓	1977	24	✓	✓	✓								
2	2	764	1800	✓	1316	2.5	✓	✓	✓								
3	3	765	1400	✓		3.1	✓	✓	✓								
4	4	766	1000	✓		3.8	✓	✓	✓			✓					
5	5	767	800	✓		4.4	✓	✓	✓								
6	6	768	600	✓		4.9	✓	✓	✓								
7	7	769	500	✓		5.5 5.7	✓	✓	✓								
8	8	770	400	✓		5.9	✓	✓	✓								redraw on 8
9	9	771	300	✓		6.3	✓	✓	✓								
10	10	772	200	✓		6.8	✓	✓	✓								
11	11	773	150	✓		7.2	✓	✓	✓								
12	12	774	125	✓		7.4	✓	✓	✓								
13	13	775	100	✓		7.7	✓	✓	✓								
14	14	776	90	✓		7.8	✓	✓	✓								
15	15	777	70	✓		8.2 8.3	✓	✓	✓								
16	16	778	50	✓		9.5	✓	✓	✓				✓ 311				
17	17	779	30	✓		13.0	✓	✓	✓				✓				
18	18	780	20*	✓		13.6	✓	✓	✓				✓				
19	19	781	5	✓		13.7	✓	✓	✓				✓				
20	20	782	0	✓		13.7	✓	✓	✓				✓				
21		783	5	✓			✓	✓	✓				✓				
22		784	5	✓			✓	✓	✓				✓				
23		785	5	✓			✓	✓	✓				✓ 327				laurie
24		786	20	✓		NN	JBC DILA	DM	MD	WE	CS	CS	DI	✓ LJ			laurie

Watchkeeper(s): H.M./D.L.

Bottom Depth: 1963 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1910	1210
Bottom	1938	1238
End	2026	1326

Positional Information
Start
Lat: 50 ° 06.01 N
Lon: 130 ° 03.00 W

Bottom
Lat: 50 ° 05.18 N
Lon: 130 ° 03.04 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

JBC Nuts = yellow

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: OACS5Event #: 89/90/91Ship: TullyUTC Date (dd mmm yyyy): 2 9 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments	
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC ALK	PH	HPLC chl	phyto	60 ¹³	bipb0	Flask Serial #		Value mL • L ⁻¹
1		787	B-10	✓	1875	5.38								1490/1144	1.194	1.201
2		788	1800	✓		3.5		✓						3181	1.153	Ja
3		789	1400	✓		4.0								1407	0.542	
4		790	1000	✓		4.7								1321	—	started @ 2.5V
5		791	800	✓		5.3			✓					1481	0.269	
6		792	700	✓		5.5	✓							2084	0.304	
7		793	600	✓		5.7								1180	0.435	
8		794	500	✓		5.9								1476	0.629	
9		795	400	✓		6.1								1365	0.964	
10		796	300	✓		6.5					✓			2086	1.481	
11		797	200	✓		6.7			✓					1387	3.502	
12		798	150	✓		7.1								1406	3.984	
13		799	125	✓		7.1								2033	4.346	
14		800	100	✓		7.3								638	3.462	-OT-late O2 check
15		801	90	✓		7.5								1411/1464	3.535	3.529
16		802	70	✓		7.6		✓						1123	4.024	
17		803	50	✓		7.7		✓						2065	4.019	
18		804	30	✓		10.0			✓					3207	5.510	
19		805	20*	✓		10.8					✓✓			2069	6.211	
20		806	5	✓		11.9		✓						3007	6.873	LIZZY GETS REST
21		807	0	✓		11.9	✓				✓			650	6.866	LIZZY GETS REST
22		808	chlmax to	✓	20						✓✓					leaking
23		809	chlmax	✓	10						✓✓					
24		810	5	✓							✓✓	✓		✓791		LIZZY GETS REST

Watchkeeper(s): H.M. / D.I.Bottom Depth: 1863 mTransmisso Cleaned: Y / N

Time	UTC	Local
Start	0434	2134
Bottom	0505	2205
End	0608	2308

Positional Information

Start
Lat: 50 ° 34.50 N
Lon: 129 ° 00.07 WBottom
Lat: 50 ° 34.51 N
Lon: 129 ° 00.15 WEnd
Lat: 50 ° 34.49 N
Lon: 129 ° 00.07 W

TH10 = 0.222078N

Oxygen Info For This Cast

Blank Value: 0.00097 mL · L⁻¹Std Value: 0.45067 mL · L⁻¹*Date Run: 02/08/10Analyst: N²

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

HM HM HM MD WE MH MH
NUTS- RED RACK

437-loop? 6.853

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: OACS 04Event #: 93Ship: TullyUTC Date (dd|mmm|yyyy): 02 Aug 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	811	1150			✓	✓	✓		
2	2	812	1000			✓		✓		
3	3	813	800			✓		✓		
4	4	814	600			✓		✓		
5	5	815	500			✓		✓		
6	6	816	400			✓		✓		
7	7	817	300			✓		✓		
8	8	818	200			✓	✓	✓		
9	9	819	150			✓		✓		
10	10	820	100			✓	✓	✓		
11	11	821	50			✓		✓		
12	12	822	20			✓		✓		
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s):
IB, ER, CSBottom Depth: ~1200 mTransmisso Cleaned: N/A / N

Time	UTC	Local
Start	0745	0045
Bottom	0823	0123
End	0913	0213

Positional Information

Start
Lat: 50° 036.939 N
Lon: 128° 054.029 WBottom
Lat: 50 036.952 N
Lon: 128 054.044 WEnd
Lat: 50 037.057 N
Lon: 128 054.147 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

811-

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: OACS4 Event #: 94/95 Ship: Tully UTC Date (dd mmm yyyy): 02 | 08 | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIS ALK	PH	HAC CHL	Phyto	6018 tripb			Flask Serial #	Value mL · L ⁻¹	
1	1	823	1200	✓	38		✓								860	0.361	
2	2	824	1000	✓	4.2										861	0.263	
3	3	825	800	✓	4.7										862	0.261	
4	4	826	600	✓	5.4										863	0.477	
5	5	827	500	✓	5.6				✓						864	0.604	OT-no curve
6	6	828	400	✓	5.9										865	0.789	866-0.785
7	7	829	300	✓	6.1										867	1.163	
8	8	830	200	✓	6.4	✓									868	1.817	
9	9	831	150	✓	6.7										869	2.335	
10	10	832	125	✓	6.9			✓							870	2.535	
11	11	833	100	✓	7.1				✓						871	2.843	
12	12	834	90	✓	7.1										872	3.060	
13	13	835	70	✓	7.16										873	3.303	874-3.307
14	14	836	50	✓	7.7										875	3.495	
15	15	837	30	✓	8.9										876	4.388	
16	16	838	20	✓	10.1										877	5.510	
17	19	839	5	✓	11.0		✓								878	6.388	
18	22	840	0	✓	11.0	✓		✓	✓			✓			879	6.380	880-
19	17	841	chlmax 10	✓	20					✓✓							
20	18	842	chlmax	✓	10					✓✓							
21	20	843	5	✓						✓✓	✓						
22	21	844	5	✓								✓					
23					TB	MR	MR	CP	GC	TB	TB	MR	LS				LI 224?
24					MR					GC							

Watchkeeper(s): MR / TB

Bottom Depth: ~1250? m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0930	0230
Bottom	0956	0256
End	1037	0337

Positional Information
Start
Lat: 50 ° 36.88 N
Lon: 128 ° 53.94 W

Bottom
Lat: 50 ° 36.93 N
Lon: 128 ° 53.96 W

End
Lat: 50 ° 36.93 N
Lon: 128 ° 53.94 W

0.222078 TH10N
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

Nuts = blue

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: OACS2Event #: 97Ship: TULLYUTC Date (dd|mmm|yyyy): 07|08|2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments		
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DOC	PH	HALE CHL	CDOM	O18	phyto	tripleO	Flask Serial #	Value mL · L ⁻¹			
1	1	845	8-10	✓	175	✓	63	✓		✓	✓						94	2.002	
2	2	846	175	✓			63		✓								1314	2.009	
3	3	847	150	✓			63										1247	2.008	
4	4	848	130	✓			63										1473	2.199	1300-2.201
5	5	849	120	✓			66			✓							1307	2.156	
6	6	850	100	✓			67										1318	2.378	
7	7	851	90	✓			69	✓									1330	2.958	
8	8	852	70	✓			7.1							✓			1338	3.034	
9	9	853	50	✓			7.8										1392	3.649	
10	10	854	40	✓			8.1										1395	3.894	
11	11	855	30	✓			8.2										1397	4.036	
12	12	856	20	✓			8.6			✓							1408	4.452	1421-4.451
13	14	857	15	✓			8.6							✓			1488	4.545	
14	15	858	10	✓			8.7										3033	4.792	
15	17	859	5	✓			9.3		✓								708	5.270	
16	20	860	0	✓			9.9							✓			1322	5.729	
17	13	861	Max-10	✓	20						✓✓								
18	16	862	chl Max	✓	10						✓✓								
19	18	863	5	✓							✓✓			✓✓					
20	19	864	5m	✓											✓				
21																			all depths on label are incorrect
22																			
23																			
24																			

Watchkeeper(s): MRBottom Depth: 184 mTransmisso Cleaned: Y / N

Time	UTC	Local
Start	1223	0523
Bottom	1228	0528
End	1246	0546

Positional Information

Start	Lat: 50° 40.77	N
	Lon: 128° 45.55	W
Bottom	Lat: 50° 40.76	N
	Lon: 128° 45.58	W
End	Lat: 50° 40.76	N
	Lon: 128° 45.55	W

0.222078 N TH10

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

TMR

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: OACS2Event #: 98Ship: TULLYUTC Date (dd|mmm|yyyy): 02|Aug|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	865	150			✓	✓	✓	✓	
2	2	866	130			✓		✓		
3	3	867	120			✓		✓	✓	
4	4	868	100			✓		✓		
5	5	869	90			✓		✓	✓	
6	6	870	90			✓		✓		
7	7	871	70			✓		✓		
8	8	872	50			✓	✓	✓	✓	
9	9	873	30			✓		✓		
10	10	874	20			✓	✓	✓		
11	11	875	15			✓		✓	✓	
12	12	876	15			✓		✓		
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s):
IB, EC, CSBottom Depth: 185 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1259	0559
Bottom	1306	0606
End	1330	0630

Positional Information

Start
Lat: 50 ° 40.791 N
Lon: 128 ° 45.533 WBottom
Lat: 50 ° 40.781 N
Lon: 128 ° 45.533 WEnd
Lat: 50 ° 40.806 N
Lon: 128 ° 45.543 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: 790-36 Station: OACS1Event #: 100Ship: TullyUTC Date (dd|mmm|yyyy): 02|08|2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken									Oxygen Titrations		Comments	
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	PH	HPLC chl	cdom box	chl	phlo	triple	Flask Serial #		Value mL · L ⁻¹
1	1	877	810	✓	115	6.5									3209	2.753	
2	2	878	120	✓	115	6.9		✓							3184	2.752	
3	3	879	100	✓		7.0				✓					1317	2.782	
4	4	880	90	✓		7.1						✓			3191	2.895	
5	5	881	70	✓		7.6									3166	3.462	
6	6	882	50	✓		7.8									1478	3.728	
7	7	883	40	✓		7.9									2064/3009	3.828	3.832
8	8	884	30	✓		8.5						✓			1497	4.451	
9	11	885	20	✓		8.9			✓						3038	5.123	
10	13	886	15	✓		9.1					✓				3204	5.192	
11	14	887	10	✓		9.1	✓								3174	5.284	
12	18	888	5	✓		9.3		✓							3040	5.546	
13	24	889	0	✓		9.7					✓	✓			2032	5.834	
14	12	890	Max-10	✓	20						✓						
15	15	891	chl-Max	✓	10						✓						
16	19	892	5	✓							✓		✓	✓			
17	9	893	PIC	✓	25												marlos.
18	10	894	PIC	✓	25												marlos
19	16	895	chlmax	✓	10												marlos
20	17	896	chlmax	✓	10												marlos
21	20	897	5	✓													marlos
22	21	898	5	✓													marlos
23	22	899	5	✓													Lizzy
24	23	900	5	✓													Lizzy

Watchkeeper(s): HRBottom Depth: 124 mTransmisso Cleaned: (Y) N

Time	UTC	Local
Start	1452	0752
Bottom	1452	0756
End	1511	0811

Positional Information

Start
Lat: 50° 43.01 N
Lon: 128° 40.20 WBottom
Lat: 50° 43.01 N
Lon: 128° 40.19 WEnd
Lat: 50° 43.00 N
Lon: 128° 40.20 W

Oxygen Info For This Cast

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

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

NZ
5BC 5BC TB CP GC TB HR CS TB TB LS

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: BPI Event #: 101 Ship: Tully UTC Date (dd|mmm|yyyy): 3 | 8 | 2016

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	DIC ALK	Phylo	8018 triple	
1	901	94	3.384	B-5	✓ 46	8.5					✓			
2	902	1314	3.631	30*	✓	8.6								OT-late
3	903	1247	3.780	20	✓	8.7				✓				
4	904	1473	4.263	10	✓	9.0	✓							
5	905	1300	4.498	5	✓	9.2		✓						
6	906	1307 1318	4.645	0	✓	9.4 9.4	✓			✓			✓	4.647
7	907			chlmax*10	✓ 30				✓					
8	908			chlmax	✓ 20				✓					
9	909			5	✓				✓			✓	457	
10														
11														
12														
13	910	1330	BP2	0	✓	9.1								
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

Watchkeeper(s): H.M./O.I.

Bottom Depth: 46 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0139	1839
Bottom	0142	1842
End	0148	1849

Positional Information

Start

Lat: 50 ° 04 . 82 N

Lon: 127 ° 52 . 77 W

Bottom

Lat: 50 ° 04 . 77 N

Lon: 127 ° 52 . 84 W

End

Lat: 50 ° 04 . 74 N

Lon: 127 ° 52 . 89 W

THO = 0.22216 N

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: 2010-36 Station: BP3 Event #: 104 Ship: Tully UTC Date (dd|mmm|yyyy): 3 | 8 | 2011

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken			HPLC							Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	Chl a	NH ₄ PH	DIC AIR	Phyto	SOB	triple O	DOC CDM	
1	923	1201		B-10	✓ 155	6.7										problem with titration
2	924	1302	2.396	150	✓	6.6		✓								large bubble in sample
3	925	1327/570	2.200	130	✓	6.7										2.205
4	926	1414	2.407	120	✓	6.7							✓		✓	
5	927	3051	2.472	100	✓	6.9				✓						
6	928	2056	2.552	90	✓	6.9	✓									
7	929	1326	2.803	70	✓	7.3										
8	930	3116	3.126	50	✓	8.3										
9	931	612	3.342	40	✓	8.5										
10	932	1335	3.352	30	✓	8.5										
11	933	3178	3.633	20	✓	8.8									✓✓	
12	934	2000	3.994	15	✓	9.0					✓					
13	935	3135	4.309	10	✓	9.1				✓			✓		✓	
14	936	1460	4.436	5	✓	9.2		✓								
15	937	3194/2075	4.476	0	✓	9.2	✓			✓	✓		✓		✓	4.478
16	938			chlmax ₁₀	✓ 20				✓✓							
17	939			chlmax	✓ 10				✓✓							
18	940			5	✓				✓✓			✓		450		
19	941			5	✓											Lizzy
20	942			5	✓											Lizzy
21																
22																note samples 911-922
23																
24						HM										skipped 1/6 TMR cancelled

Watchkeeper(s): HN / D.I.

Bottom Depth: 165 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0318	2018
Bottom	0321	2021
End		

Positional Information

Start
Lat: 50 ° 03.23 N
Lon: 127 ° 55.33 W

Bottom
Lat: 50 ° 03.22 N
Lon: 127 ° 55.33 W

End
Lat: 50 ° 03.36 N
Lon: 127 ° 55.37 W

THO = 0.22216 N

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

Biology Rosette.
Rosette Log

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

Cruise ID: 200-36 Station: B83 Event #: 105 Ship: Tully UTC Date (dd mmm yyyy): 03 08 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	943	Pic	✓ 20						
2	2	944	Pic	✓ 20						
3	8	945	chlMax	✓ 4						
4	9	946	chlMax	✓ 4						
5	3	947	15	✓						
6	4	948	5	✓						
7	5	949	5	✓						
8	6	950	5	✓						Lizzy
9	7	951	5	✓						Lizzy
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s):
MR TB

Bottom Depth: 166 m

Transmisso Cleaned: (Y) I N

	UTC	Local
Start	1603	0903
Bottom	1607	0907
End	1616	0916

Positional Information
Start
Lat: 50 ° 03 15 N
Lon: 127 ° 55.34 W

Bottom
Lat: 50 ° 03 16 N
Lon: 127 ° 55.34 W

End
Lat: 50 ° 03 18 N
Lon: 127 ° 55 31 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: 700-36 Station: BPSEvent #: 107/108 Ship: TullyUTC Date (dd mmm/yyyy): 03/08/2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	PH	HPLC	DOC	OR	phyo	mple	Flask Serial #	Value mL · L ⁻¹	
1	1	952	8-10	✓	1277	3.7	✓	✓	✓						1490	0.476	
2	2	953	1000	✓		4.2	✓	✓	✓						1144	0.317	
3	3	954	800	✓		4.7	✓	✓	✓						3181	0.285	
4	4	955	600	✓		5.5	✓	✓	✓						1407	0.496	
5	5	956	500	✓		5.7	✓	✓	✓						1321	0.662	
6	6	957	400	✓		✓ ^{5.8} 5.9	✓	✓	✓						1481/2084	0.828	0.824
7	7	958	300	✓		6.0	✓	✓	✓		✓				1180	1.055	
8	8	959	200	✓		6.3	✓	✓	✓		✓				1476	1.674	
9	9	960	150	✓		6.5	✓	✓	✓						1365	2.799	
10	10	961	125	✓		6.5	✓	✓	✓			✓			2086	3.489	
11	11	962	100	✓		6.8	✓	✓	✓						1387	3.394	
12	12	963	90	✓		6.8	✓	✓	✓						1406	3.398	
13	13	964	70	✓		7.1	✓	✓	✓						2033	3.575	REBOOT → # 108
14	14	965	50	✓		7.6	✓	✓	✓						638	3.213	
15	15	966	30	✓		✓ ^{8.7} 8.8	✓	✓	✓		✓				1411/1464	4.212	4.213
16	16	967	20*	✓		8.7	✓	✓	✓		✓				1123	5.967	
17	19	968	5	✓		10.3	✓	✓	✓		✓	✓			2065	6.733	
18	22	969	0	✓		10.3	✓	✓	✓		✓	✓			3207	6.740	
19	17	970	Max 10	✓	20					✓✓							
20	18	971	Chl-max	✓	10					✓✓							
21	20	972	5	✓						✓✓			✓✓				
22	21	973	5	✓										900			
23																	
24						NN	IBC	NN	MD	WE	MH	DI	DI	MH	LJ		

Watchkeeper(s):
MR/TBBottom Depth: 1274 mTransmisso Cleaned: Y / N

Time	UTC	Local
Start	1759	1059
Bottom	1826	1126
End	1915	1215

Positional Information

Lat:	<u>49° 59.98</u>	N
Lon:	<u>127° 59.96</u>	W

Lat:	<u>49° 59.98</u>	N
Lon:	<u>127° 59.97</u>	W

Lat:	<u>50° 00.00</u>	N
Lon:	<u>127° 59.98</u>	W

0.22216 N TH10

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

Nuts = yellow

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: BP5 Event #: 109 Ship: Tully UTC Date (dd|mmm|yyyy): 03 Aug 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken					Oxygen Titrations		Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	TM		Flask Serial #	Value mL · L ⁻¹	
1	1	974	1200			✓		✓				
2	2	975	1000			✓	✓	✓				
3	3	976	800			✓		✓				
4	4	977	600			✓		✓				
5	5	978	500			✓		✓				
6	6	979	300			✓		✓				
7	7	980	200			✓		✓				
8	8	981	150			✓		✓				
9	9	982	100			✓	✓	✓				
10	10	983	50			✓		✓				
11	11	984	30			✓		✓				
12	12	985	10			✓		✓				
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												

Watchkeeper(s): IB, ER, CS

Bottom Depth: 1275 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2000	1300
Bottom	2030	1330
End	2056	1356

Positional Information

Start
Lat: 50 ° 00.025 N
Lon: 127 ° 59.950 W

Bottom
Lat: 50 ° 00.057 N
Lon: 127 ° 59.992 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

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: BP 7 Event #: 111/113 Ship: TULLY UTC Date (dd|mmm|yyyy): 5 | 8 | 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	PH	PA	PH	ALC	0.13	0.13	
1	986	1490	1.577	B-10	✓ 2210	✓ 2.6	✓					✓				
2	987	1144	0.579	1400	✓	3.3		✓								
3	988	3181	0.245	1000	✓	4.1							✓			
4	989	1407	0.254	800	✓	4.6										
5	990	1321	0.447	600	✓	5.0										
6	991	1481	0.754	500	✓	5.2										S.B. pH down before oxy
7	992	1476	1.352	400	✓	5.6								✓		secal/low drag 2084 0.766
8	993	1365	1.937	300	✓	5.9	✓									
9	994	1180	2.176	200	✓	6.7				✓						
10	995	2086	3.686	150	✓	6.8										
11	996	1387	4.027	125	✓	7.0										730 1406-4.027
12	997	2033	3.741	100	✓	7.3										
13	998	638	3.339	90	✓	7.6						✓				
14	999	1411	3.854	70	✓	7.7										
15	1000	1464	4.189	50*	✓	8.6				✓						
16	1001	1123	5.237	30	✓	9.1										OT
17	1002	2065	6.533	20	✓	10.2								✓		
18	1003	3207	6.266	5	✓	10.3		✓								
19	1004	2069	6.336	0	✓	10.5	✓			✓		✓		✓		OT - very late
20	1005			CM+10	✓ 35				✓✓	✓✓						
21	1006			CMAY	✓ 20				✓✓	✓✓						
22	1007			5	✓				✓✓	✓✓	✓✓			✓		
23	1008			5	✓											LIZZIE
24	1009			5	✓											LIZZIE

Watchkeeper(s): H.M./D.I.

Bottom Depth: 2176 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0549	2249
Bottom	0624	2324
End	0723	0023

Positional Information

Start Lat: 49 ° 52.41 N
Lon: 128 ° 11.21 W

Bottom Lat: 49 ° 52.39 N
Lon: 128 ° 11.18 W

End Lat: 49 ° 52.39 N
Lon: 128 ° 11.17 W

Tho = 0.222008N

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹

Std Value: _____ mL · L⁻¹

*Date Run: 5 | 8 | 10

Analyst: N²

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

Water Properties Group

TMR
Rosette Log

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

Cruise ID: 2010-36 Station: BP7 Event #: 112 Ship: Tully UTC Date (dd mmm/yyyy): 05 Aug 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	1010	2000			✓	✓			
2	2	1011	1800			✓	✓			
3	3	1012	1400			✓	✓			
4	4	1013	1000			✓	✓			
5	5	1014	800			✓	✓			
6	6	1015	600			✓	✓			
7	7	1016	400			✓	✓			
8	8	1017	200			✓	✓			
9	9	1018	150			✓	✓			
10	10	1019	100			✓	✓			
11	11	1020	50			✓	✓			
12	12	1021	20			✓	✓			
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s):
IB, CS, GR

Bottom Depth: 2180 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0347	2047
Bottom	0438	2138
End	0538	2238

Positional Information
Start
Lat: 49 ° 52.421 N
Lon: 128 ° 11.105 W

Bottom
Lat: 49 ° 52.459 N
Lon: 128 ° 11.244 W

End
Lat: 49 ° 52.535 N
Lon: 128 ° 11.155 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: 2010-36 Station: BPO9Event #: 117Ship: TullyUTC Date (dd mmm yyyy): 05 08 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	HPCL	CHL	Maros	phyto	triple	Flask Serial #	Value mL · L ⁻¹	
1	1	1022	PIC	✓	50					✓					
2	2	1023	PIC	✓	50					✓					
3	3	1024	Max-10	✓	20			✓	✓						
4	5	1025	chMax	✓	10			✓	✓						
5	6	1026	chMax	✓	10					✓					
6	7	1027	chMax	✓	10					✓					
7	4	1028	15	✓						✓					
8	8	1029	5	✓						✓					
9	9	1030	5	✓						✓					
10	10	1031	5	✓				✓	✓		✓	✓			
11	11	1032	5	✓											Lizzy
12	12	1033	5	✓											Lizzy
13	13	1034	0	✓								✓			
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s): MRBottom Depth: 2133 mTransmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1213	0513
Bottom	1215	0515
End	1224	0524

Positional Information

Start	Lat: <u>49° 40' 19"</u>	<u>N</u>
	Lon: <u>128° 30' 02"</u>	<u>W</u>
Bottom	Lat: <u>49° 40' 19"</u>	<u>N</u>
	Lon: <u>128° 30' 03"</u>	<u>W</u>
End	Lat: <u>49° 40' 18"</u>	<u>N</u>
	Lon: <u>128° 29' 98"</u>	<u>W</u>

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

TMR

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: BP09Event #: 118Ship: TullyUTC Date (dd|mmm|yyyy): 05|08|2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken					Oxygen Titrations		Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	TM		Flask Serial #	Value mL · L ⁻¹	
1	1	1035	2000			✓	✓	✓				
2	2	1036	1800			✓	✓	✓				
3	3	1037	1400			✓		✓				
4	4	1038	1000			✓		✓				
5	5	1039	800			✓		✓				
6	6	1040	600			✓		✓				
7	7	1041	400			✓		✓				
8	8	1042	200			✓		✓				
9	9	1043	150			✓	✓	✓				
10	10	1044	100			✓		✓				
11	11	1045	60			✓		✓				
12	12	1046	20			✓		✓				
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												

Watchkeeper(s):
IB, ER, CSBottom Depth: 22154 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1252	0552
Bottom	1428	0728
End	1542	0842

Positional Information

Start
Lat: 49 ° 40.197 N
Lon: 128 ° 30.002 WBottom
Lat: 49 ° 40.201 N
Lon: 128 ° 29.986 WEnd
Lat: 49 ° 40.171 N
Lon: 128 ° 29.960 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

Rosette.

Water Properties Group

Rosette Log

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

Cruise ID: 200-36 Station: BP 09

Event #: 119

Ship: TULLY

UTC Date (dd mmm yyyy): 05 08 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken							Oxygen Titrations		Comments			
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DK	pH	DOC	CDOM	O18	Flask Serial #		Value mL · L ⁻¹		
1		1047	B10	✓	2.170	✓	✓		✓	✓					1201	1.611	
2		1048	1800	✓		2.5		✓							1302	1.101	
3		1049	1400	✓		3.0									1327	0.558	
4		1050	1000	✓		3.9									570	0.287	
5		1051	800	✓		4.4						✓			1414	0.259	
6		1052	600	✓		4.9	✓								3051	0.412	
7		1053	500	✓		5.4									2056	0.604	
8		1054	400	✓		5.6									1326	0.976	
9		1055	300	✓		6.0			✓		✓	✓			3116	1.393	
10		1056	200	✓		6.5									612	2.237	
11		1057	150	✓		6.9									1335	2.505	
12		1058	125	✓		6.9									3178	3.248	
13		1059	100	✓		✓7.3									2000	4.596	3135-4.600
14		1060	90	✓		7.5									1460	4.562	
15		1061	70	✓		8.0									3194	5.096	OT
16		1062	50	✓		8.5				✓	✓	✓	✓		2075	5.167	
17		1063	30	✓		✓10.0					✓	✓	✓		3164	5.896	1260 border. 5.906
18		1064	20	✓		10.3					✓	✓	✓		3107	6.054	
19		1065	5	✓		10.9		✓							3118	6.272	
20		1066	0	✓		✓10.9	✓		✓	✓	✓	✓	✓		3061	6.276	
21																	
22	99	loop													2060	6.223	
23																	
24						N ²	N ²	TB	CP	GC	CS	LS	TB				

Watchkeeper(s): MR

Bottom Depth: 2145 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1552	0852
Bottom	1627	0927
End	1719	1019

Positional Information

Lat:	49 ° 40.17	N
Lon:	128 ° 29.95	W

Lat:	49 ° 40.21	N
Lon:	128 ° 29.96	W

Lat:	49 ° 40.22	N
Lon:	128 ° 29.95	W

THO = 0.222008 N

Oxygen Info For This Cast

Blank Value:		mL · L ⁻¹
Std Value:		mL · L ⁻¹
*Date Run:	5 8 10	
Analyst:	NZ	

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

JED-L

Nuts = yellow

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: G2 Event #: 121 Ship: TULLY UTC Date (dd|mmm|yyyy): 6 | 8 | 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 NPLC	AMTD	DIC ALK	PH	O ₁₈		
1	1067	1490	1.509	B-10	✓	90	✓ 6.7	✓									DO run
2	1068	1144	1.528	80	✓		6.8		✓								right after
3	1069	3181	1.857	70	✓		7.3							✓			sample ~ 30 m
4	1070	1407	3.154	50	✓		7.9										moderate shake
5	1071	1481	2.853	30	✓		8.5						✓				3.144
6	1072	2084	3.648	20*	✓		8.9	✓									
7	1073	1476	7.641	5	✓		11.8		✓								
8	1074	1365	9.192	0	✓		13.3	✓									
9	1075			CM+10	✓	15				✓✓	✓✓						
10	1076			CM	✓	5				✓✓	✓✓						
11	1077			5	✓					✓✓	✓✓	✓✓				✓ 619	
12	1078			5	✓												LIZZIE
13	1079			5	✓												LIZZIE
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24							NN	SBC	DI	MH	MH	MH	MD	WE	DI		

Watchkeeper(s): H M DI

Bottom Depth: 101 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	01:31	18:31
Bottom	01:37	18:37
End	01:47	18:47

Positional Information

Start Lat: 49° 18.73 N
Lon: 126° 38.18 W

Bottom Lat: 49° 18.74 N
Lon: 126° 38.18 W

End Lat: 49° 18.77 N
Lon: 126° 38.18 W

THO = 0.222008N

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: 2010-36 Station: G4 Event #: 124 Ship: Tully UTC Date (dd|mmm|yyyy): 06 | Aug | 2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken			HPLC							Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	Chl a	NH ₄ phyto	tripb	pH	DIC ALK	FOI8	DOC CDOM	
1	1080	1201/1459	1.521	B-10	✓	136	✓									1.505
2	1081	1327	1.514	130	✓			✓								
3	1082	570	1.609	120	✓											
4	1083	1414	2.013	100	✓											
5	1084	3051	2.439	90	✓		✓					✓				
6	1085	2056	2.910	70	✓											
7	1086	1326	3.260	50	✓										✓	✓
8	1087	3116/612	3.414	40	✓											3.418
9	1088	1335	3.561	30	✓											
10	1089	3178	5.149	20	✓											
11	1090	2000	6.059	*15	✓							✓				
12	1091	3135	6.551	10	✓									✓	✓	
13	1092	1460	7.053	5	✓			✓								
14	1093	3194	7.092	0	✓		✓							✓	✓	tripped bottle 18 instead of 14 D.I.
15	1094			chk +10	✓	15			✓							
16	1095			chk m	✓	5			✓							
17	1096			5	✓				✓	✓	861					
18		3194				10.6										
19																
20																
21																
22	1097	3107	6.791	5		11.28										G3 NI
23																
24						HM			MH	MH	MH	WE	MD			

Watchkeeper(s): DI HM

Bottom Depth: 146 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	03:56	20:56
Bottom	03:59	20:59
End	04:15	21:15

Positional Information

Start Lat: 49 ° 11.29 N
Lon: 126 ° 49.22 W

Bottom Lat: 49 ° 11.29 N
Lon: 126 ° 49.20 W

End Lat: 49 ° 11.31 N
Lon: 126 ° 49.23 W

Tho = 0.2223

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: 2010-36 Station: G5 Event #: 126 Ship: Tully UTC Date (dd mmm yyyy): 06 Aug 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken					Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	TM	He	Flask Serial #	Value mL · L ⁻¹	
1	1	1098	250			✓		✓	✓			
2	2	1099	200			✓	✓	✓				
3	3	1100	175			✓		✓				
4	4	1101	150			✓		✓				
5	5	1102	125			✓		✓				
6	6	1103	100			✓		✓	✓			
7	7	1104	90			✓		✓				
8	8	1105	70			✓		✓	✓			
9	9	1106	50			✓	✓	✓				
10	10	1107	30			✓		✓	✓			
11	11	1108	20			✓	✓	✓				
12	12	1109	10			✓		✓				
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												

Watchkeeper(s):

Bottom Depth: 277 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0506	1006
Bottom	0523	1023
End	0537	1037

Positional Information
Start Lat: 49 ° 07.330 N
Lon: 126 ° 55.248 W

Bottom Lat: 49 ° 07.358 N
Lon: 126 ° 55.301 W

End Lat: 49 ° 07.354 N
Lon: 126 ° 55. 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: 290-36 Station: G-5 Event #: 127 Ship: TULLY UTC Date (dd|mmm|yyyy): 6 | 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 HPLC	PH ₇₇₀	DIC A14	PH	O ₁₈	Angle	
1	1110	1490	1.264	8-10	☒ 265	6.2	☒					☒				
2	1111	1144	1.541	200	☒	6.3		☒								
3	1112	3181	1.747	150	☒	6.5										OT
4	1113	1407	1.881	125	☒	6.6										
5	1114	1321	2.198	100	☒	6.7	☒							☒		
6	1115	1481	2.608	70	☒	7.1							☒			
7	1116	2084	2.941	50	☒	7.1										
8	1117	1476/365	4.420	30	☒	6.9 7.0						☒				4.424
9	1118	1180	3.672	20	☒	7.4										
10	1119	2086	5.435	15+	☒	8.8										
11	1120	1387	6.766	5	☒	9.8		☒						☒		
12	1121	1406	6.768	0	☒	9.8	☒					☒	☒	☒		
13	1122	1407		CM+10	☒ 15				☒	☒						
14	1123	1408		CM	☒ 6				☒	☒						
15	1124	1409		5	☒				☒	☒	☒				429	
16																
17																
18																
19																DO samples not
20																reshaken or
21																sealed
22																
23																
24						HM			MH	MH	MH	MD	WE		MH	

Watchkeeper(s): A.M./A.I.

Bottom Depth: 275 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0547	2247
Bottom	0552	2252
End	0609	2309

Positional Information

Start Lat: 49 ° 07.36 N
Lon: 126 ° 55.27 W

Bottom Lat: 49 ° 07.35 N
Lon: 126 ° 55.26 W

End Lat: 49 ° 07.35 N
Lon: 126 ° 55.22 W

0.222389 N

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: 2010-36 Station: C 7Event #: 129Ship: TullyUTC Date (dd:mmm/yyyy): 06 08 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	PH	HPLC CHL	DOC CDOM	OB	phyp	mpd	Flask Serial #	Value mL · L ⁻¹	
1	1	1125	810	✓	1760	3.1	✓	✓	✓						94	0.999	
2	2	1126	1400	✓		3.5	✓	✓	✓						1314	0.579	
3	3	1127	1000	✓		4.3		✓	✓						1247	0.258	
4	4	1128	800	✓		4.8 5.0		✓	✓						1473/1300	0.214	0.221
5	5	1129	600	✓		5.4	✓		✓						1307	0.379	
6	6	1130	500	✓		5.6			✓						1318	0.553	
7	7	1131	400	✓		6.0			✓						1330	0.860	
8	8	1132	300	✓		6.4									1338	1.380	
9	9	1133	200	✓		6.8									1392	2.114	
10	10	1134	150	✓		7.1		✓							1395	2.551	
11	11	1135	125	✓		7.2									1397	2.989	
12	12	1136	100	✓		7.4									1408	3.132	
13	13	1137	90	✓		7.2			✓						1421	4.348	
14	14	1138	80	✓		7.3									1488	4.913	
15	15	1139	70	✓		7.4									3033	4.291	
16	16	1140	50*	✓		7.8									708/1322	5.259	5.258
17	18	1141	30	✓		8.5	✓								3203	4.608	
18	20	1142	20	✓		8.9									3016	5.489	
19	21	1143	5	✓		11.0		✓	✓						3055	7.278	
20	24	1144	0	✓		11.0									2051		
21	17	1145	Max-10	✓	40					✓	✓						
22	19	1146	chl-max	✓	30					✓	✓						
23	22	1147	5	✓						✓	✓		✓				
24	23	1148	5	✓		TB/MR	MR	TB	CP	GC	TB GC	X	TB	TB	✓		Laurie

Watchkeeper(s): MRBottom Depth: 1753 mTransmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0837	0137
Bottom	0912	0212
End	1009	0309

Positional Information

Start	Lat: 48° 59.33	N
	Lon: 127° 07.24	W
Bottom	Lat: 48° 59.36	N
	Lon: 127° 07.23	W
End	Lat: 48° 59.38	N
	Lon: 127° 07.22	W

TK10 = 0.222389N

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: 2010-36 Station: G7Event #: 130Ship: TullyUTC Date (dd|mmm|yyyy): 06 Aug 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	1149	1700			✓		✓	✓	
2	2	1150	1400			✓		✓		
3	3	1151	1000			✓		✓		
4	4	1152	800			✓		✓		
5	5	1153	600			✓		✓		
6	6	1154	400			✓		✓	✓	
7	7	1155	300			✓		✓		
8	8	1156	200			✓		✓		
9	9	1157	150			✓		✓		
10	10	1158	100			✓		✓	✓	
11	11	1159	40			✓		✓		
12	12	1160	20			✓		✓	✓	
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s): K. ER. CSBottom Depth: 1723 mTransmisso Cleaned: Y / N

Time	UTC	Local
Start	1000	0320
Bottom	1113	0413
End	1239	0539

Positional Information

Start
Lat: 48 ° 59.371 N
Lon: 127 ° 07.232 WBottom
Lat: 48 ° 59.371 N
Lon: 127 ° 07.243 WEnd
Lat: 48 ° 59.404 N
Lon: 127 ° 07.199 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

Biology Rosette

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: 0ALG9Event #: 133Ship: TullyUTC Date (dd mmm yyyy): 06 08 2010

Firing #	Niskin #	Sample #	Rosette Operation			Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed ☒ Pressure		Oxy	Nut	Sal	HPLC	chl	phyt	marcos		Flask Serial #	Value mL · L ⁻¹	
1	1	1161	Pic	☒	40							☒				
2	2	1162	Pic	☒	40							☒				
3	3	1163	Max-10	☒	30				☒	☒						
4	4	1164	chl-max	☒	23				☒	☒						
5	5	1165	chl-max	☒	23							☒				
6	6	1166	chl-max	☒	23							☒				
7	7	1167	15	☒								☒				
8	8	1168	5									☒				
9	9	1169	5									☒				
10	10	1170	5						☒	☒	☒					Liz
11	11	1171	5													Lizzy
12	12	1172	5													Lizzy
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s):
MRBottom Depth: 215? mTransmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1804	1104
Bottom	1807	1107
End	1816	1116

Positional Information

Start	Lat:	48 ° 36 01	N
	Lon:	127 ° 42 02	W
Bottom	Lat:	48 ° 35 99	N
	Lon:	127 ° 42 03	W
End	Lat:	48 ° 35 97	N
	Lon:	127 ° 42 10	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

Rosette.

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: 0A G9Event #: 135Ship: TullyUTC Date (dd mmm yyyy): 06 08 2010

Firing #	FLASK #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments		
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	pH	DOC	ODOM	018	tride	Flask Serial #		Value mL • L ⁻¹	
1	860	1173	B-10	✓	2550	2.5	✓	✓	✓	✓						1.720	860
2	861	1174	2000	✓		2.6	✓	✓	✓	✓						1.400	862 - 2.6 1.392
3	863	1175	1800	✓		2.8	✓	✓	✓	✓						1.105	
4	864	1176	1400	✓		3.4	✓	✓	✓	✓						0.530	
5	865	1177	1000	✓		4.2	✓	✓	✓	✓						0.248	
6	866	1178	800	✓		4.7	✓	✓	✓	✓						0.235	
7	867	1179	600	✓		5.4	✓	✓	✓	✓						0.395	
8	868	1180	500	✓		5.8	✓	✓	✓	✓						0.616	
9	869	1181	400	✓		6.1	✓	✓	✓	✓	✓	✓				1.094	
10	870	1182	300	✓		6.6	✓	✓	✓	✓	✓	✓				1.740	
11	871	1183	200	✓		7.1	✓	✓	✓	✓	✓	✓				2.568	
12	872	1184	150	✓		7.6	✓	✓	✓	✓	✓	✓				2.969	
13	873	1185	125	✓		7.6	✓	✓	✓	✓	✓	✓				3.518	
14	874	1186	100	✓		7.5	✓	✓	✓	✓	✓	✓				4.676	
15	875	1187	90	✓		7.8	✓	✓	✓	✓	✓	✓				5.173	876 - 7.9 5.167
16	877	1188	70	✓		8.3	✓	✓	✓	✓	✓	✓				5.680	
17	878	1189	50	✓		8.8	✓	✓	✓	✓	✓	✓				6.001	
18	879	1190	30	✓		9.9	✓	✓	✓	✓	✓	✓				6.199	
19	880	1191	20	✓		11.1	✓	✓	✓	✓	✓	✓				6.587	
20	881	1192	5	✓		11.5	✓	✓	✓	✓	✓	✓				6.623	
21	882	1193	0	✓		11.6	✓	✓	✓	✓	✓	✓				6.622	
22	883	1194	5	✓			✓	✓	✓	✓	✓	✓	✓				
23			25				✓	✓	✓	✓	✓	✓					
24		clean	99												883	6.559	

Watchkeeper(s): H.A. / D.I.Bottom Depth: 2110 mTransmisso Cleaned: (Y) N

Time	UTC	Local
Start	1853	1153
Bottom	1935	1235
End	2038	1338

Positional Information

Start
Lat: 48 ° 36.00 N
Lon: 127 ° 41.98 WBottom
Lat: 48 ° 35.95 N
Lon: 127 ° 42.34 WEnd
Lat: 48 ° 35.69 N
Lon: 127 ° 42.69 WTH10 = 0.222389

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

TMR
Rosette Log

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

Cruise ID: 2010-36 Station: G9 Event #: 136 Ship: Tully UTC Date (dd|mmm|yyyy): 06 | Aug | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments	
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	TM	HE/Ar						Flask Serial #	Value mL • L ⁻¹		
1	1	1195	2000				✓		✓	✓								
2	2	1196	1800				✓		✓									
3	3	1197	1400				✓		✓	✓								
4	4	1198	1000				✓		✓									
5	5	1199	800				✓		✓									
6	6	1200	600				✓		✓	✓								
7	7	1201	400				✓		✓									
8	8	1202	200				✓		✓	✓								
9	9	1203	150				✓		✓									
10	10	1204	100				✓		✓									
11	11	1205	50				✓		✓	✓								
12	12	1206	20				✓		✓									
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Watchkeeper(s): IB, ER, CS

Bottom Depth: 2559 m
Transmisso Cleaned: ✓ Y / N

Time	UTC	Local
Start	2047	1347
Bottom	2140	1440
End	2237	1537

Positional Information
Start
Lat: 48 ° 35.875 N
Lon: 127 ° 42.774 W

Bottom
Lat: 48 ° 35.888 N
Lon: 127 ° 43.131 W

End
Lat: 48 ° 35.771 N
Lon: 127 ° 43.481 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: 2010-36 Station: LJ 3 Event #: 137 Ship: TULLY UTC Date (dd/mmm/yyyy): 07 AUG 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	CHL	HPIC	PHYTO	PH	DIC/ALN	O ₁₃	3+0	Flask Serial #	Value mL · L ⁻¹	
1	1	1207	B-10	✓	115	✓ 6.7	✓				✓	✓			94	1.495	
2	2	1208	100	✓		6.6		✓							1314	1.602	
3	3	1209	70	✓		7.0									1293	2.498	
4	4	1210	50	✓		7.3	✓								1293	3.061	
5	5	1211	40	✓		7.4						✓			1300	2.906	
6	6	1212	30	✓		7.6									1307	3.200	
7	8	1213	20	✓		7.9					✓				1312	3.689	
8	9	1214	15	✓		✓ 8.8									1330/1338	4.882	4.910 OT-0.52035
9	11	1215	10	✓		9.5									1392	5.428	
10	12	1216	5	✓		11.6		✓							1395	7.015	
11	14	1217	0	✓		✓ 12.3							✓		1397	7.284	
12	7	1218	CM+10	✓	30			✓✓	✓✓								
13	10	1219	CM	✓	15			✓✓	✓✓								
14	13	1220	5	✓				✓✓	✓✓	✓✓				✓			
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s): MCBottom Depth: 124 mTransmisso Cleaned: Y / N

Time	UTC	Local
Start	1015	0315
Bottom	1018	0318
End	1030	0330

Positional Information

Lat:	49 ° 39 11	N
Lon:	127 ° 11 16	W

Start

Lat:	49 ° 39.12	N
Lon:	127 ° 11.15	W

Bottom

Lat:	49 ° 39.13	N
Lon:	127 ° 11.13	W

End

THIO = 0.222429

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: 2010-36 Station: LS 4 Event #: 138 Ship: Tully UTC Date (dd mmm yyyy): 07 Aug 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken									Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	PH	MP	chl	phyc	triple	Flask Serial #	Value mL · L ⁻¹	
1	1	1221	B-10	✓	150	6.5	✓	✓	✓					1490	1.614	
2	2	1222	130	✓			✓	✓	✓					1144	1.613	
3	3	1223	120	✓		6.5			✓					3181	1.619	
4	4	1224	100	✓		6.7	✓							1407	1.913	
5	5	1225	90	✓		6.9								1321	2.202	
6	6	1226	70	✓		7.0								1481	2.739	
7	7	1227	50	✓		7.0								2084	3.466	
8	8	1228	40	✓		7.0								1476	3.827	
9	9	1229	30	✓		7.3								1365	2.994	
10	10	1230	20	✓		7.2				✓	✓			1180	3.230	
11	11	1231	15 *	✓		8.5				✓	✓			2086	3.947	3.932-OT
12	15	1232	10	✓		11.1			✓	✓	✓			1406	6.234	
13	16	1233	5	✓		11.4	✓	✓	✓	✓	✓	✓		2033	6.378	
14	24	1234	0	✓		11.6	✓	✓	✓		✓			638	6.474	
15	13	1235	Pic	✓	12											marcos
16	14	1236	Pic	✓	12											
17	17	1237	CHLNaex	✓	5											
18	18	1238	chlNaex	✓	5											
19	12	1239	15	✓												
20	19	1240	5	✓												
21	20	1241	5	✓												marcos
22	21	1242	5	✓												Lizzy
23	22	1243	5	✓												Lizzy
24	23	1244	5	✓									✓			Laurie

Watchkeeper(s): TB MRBottom Depth: 160 mTransmisso Cleaned: Y / N

Time UTC Local

Start 1121 0421

Bottom

End 1142 0442

Positional Information

Lat: 49° 35.50 NLon: 127° 16.90 WLat: 49° 35.51 NLon: 127° 16.73 WLat: 49° 35.51 NLon: 127° 16.73 W0.22243 N

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: 200-36 Station: LS 5Event #: 139Ship: TULLYUTC Date (dd/mmm/yyyy): 07/08/2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments	
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC	PH	MLC	CHL	OIB	phyl	xiplo	Flask Serial #	Value mL · L ⁻¹		
1	1	1245	B-10	✓	1050	✓	✓		✓	✓						860	0.300	
2	2	1246	800	✓		✓		✓	✓							861	0.257	
3	3	1247	600	✓		✓										862	0.420	
4	4	1248	400	✓		✓				✓						863	0.694	
5	5	1249	200	✓		✓										864	1.580	
6	6	1250	150	✓		✓										865	2.257	
7	7	1251	100	✓		✓										866	3.899	
8	8	1252	90	✓		✓										867/868	4.005	4.008
9	9	1253	70	✓		✓	✓									869	3.520	
10	10	1254	50	✓		✓										870	2.780	
11	11	1255	30	✓		✓										871	3.974	
12	12	1256	20	✓		✓										872	5.255	
13	15	1257	5	✓		✓		✓						✓		873	6.310	
14	18	1258	0	✓		✓	✓		✓		✓					874	6.509	
15	13	1259	Max-10	✓	20					✓✓								
16	14	1260	chlMax	✓	10					✓✓								
17	16	1261	5	✓						✓✓								
18	17	1262	5	✓										✓				
19																		} all NISKIN 3 closed @ 0 but not sampled.
20						MR	MR	MR	CP	GC	TB	TB	TB	LS				
21																		
22																		
23																		
24																		

Watchkeeper(s): MRBottom Depth: 1060 mTransmisso Cleaned: (Y) I N

Time	UTC	Local
Start	1238	0538
Bottom	1256	0556
End	1326	0626

Positional Information

Start	Lat: <u>49° 31.64</u>	<u>N</u>
	Lon: <u>127° 22.53</u>	<u>W</u>
Bottom	Lat: <u>49° 31.64</u>	<u>N</u>
	Lon: <u>127° 22.52</u>	<u>W</u>
End	Lat: <u>49° 31.58</u>	<u>N</u>
	Lon: <u>127° 22.52</u>	<u>W</u>

0.22243 N

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: 2010-36 Station: C7 Event #: 140 Ship: TULLY UTC Date (dd|mmm|yyyy): 8 | 8 | 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 H ₄ LC	PAR70	PH	DIC BLT	O ₁₈	Temp	
1	1263	3184	1.574	B-10	✓	119	✓6.9	✓					✓	✓			
2	1264	1317	1.558	120	✓	119	6.9		✓								
3	1265	3191/3165	2.594	100	✓		✓7.3										2.583
4	1266	1478	2.827	90	✓		7.3										
5	1267	2064	3.574	70	✓		7.3						✓		✓		✓
6	1268	3009	4.478	50	✓		7.5										
7	1269	1497	4.963	40	✓		7.8							✓			
8	1270	3038	5.114	30*	✓		7.9										
9	1271	3204	5.319	20	✓		8.5	✓									
10	1272	3174	5.546	15	✓		8.7										
11	1273	3040	7.464	10	✓		10.9										
12	1274	2032	6.977	5	✓		11.8		✓						✓		✓
13	1275	3098	6.895	0			11.7	✓					✓	✓	✓		✓
14	1276			CM+10	✓	22				✓✓	✓✓						
15	1277			CM	✓	12				✓✓	✓✓						✓
16	1278			5	✓					✓✓	✓✓	✓✓				310	
17																	
18																	
19	loop 47	471	7.054														
20	loop 48	1401	8.230														
21	loop 49	3209	7.167														
22																	
23																	
24																	

Watchkeeper(s): H.A./A.I.

Bottom Depth: 130 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	04:45	21:45
Bottom	04:48	21:50
End	05:03	22:03

Positional Information

Start

Lat: 48 ° 32.88 N

Lon: 126 ° 00.59 W

Bottom

Lat: 48 ° 32.88 N

Lon: 126 ° 00.60 W

End

Lat: 48 ° 32.86 N

Lon: 126 ° 0.64 W

TH10 = 0.222501 N

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

TMR Rosette Log

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

Cruise ID: 2010-36 Station: C7 Event #: 141 Ship: Tull UTC Date (dd|mmm|yyyy): 08|Aug|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	1279	100			✓	✓	✓		
2	2	1280	100			✓		✓		
3	3	1281	90			✓		✓		
4	4	1282	80			✓		✓		
5	5	1283	70			✓	✓	✓		
6	6	1284	60			✓		✓		
7	7	1285	50			✓	✓	✓		
8	8	1286	40			✓	✓	✓		
9	9	1287	30			✓	✓	✓		
10	10	1288	20			✓	✓	✓		
11	11	1289	20			✓		✓		
12	12	1290	10			✓	✓	✓		
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s): BS, IB, CS

Bottom Depth: 130 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0519	2219
Bottom	0526	2226
End	0540	2240

Positional Information

Start Lat: 48 ° 32.890 N
 Lon: 126 ° 00.619 W

Start

Bottom Lat: ° N
 Lon: ° W

Bottom

End Lat: ° N
 Lon: ° 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

Water Properties Group

Rosette Log

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

Cruise ID: 2ao-36 Station: C4 Event #: 145 Ship: TULLY UTC Date (dd|mmm|yyyy): 08 | AUG | 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 HPLC	PHOTO	PH	DIC ALN		O ₂ B		
1	1291	94	2.034	B-10	✓	157	✓	7.5	✓					✓	✓		
2	1292	1314	2.063	150	✓			7.5		✓							
3	1293	1247	2.187	130	✓			7.5									
4	1294	1473	2.135	120	✓			7.5					✓				
5	1295	1300	2.066	100	✓			7.6									
6	1296	1307	2.112	90	✓			7.7				✓			✓		
7	1297	1318	2.376	70	✓			7.8									
8	1298	1330	3.709	50	✓			8.3	✓								
9	1299	1338	3.690	40	✓			8.4									
10	1300	1392	4.058	30	✓			8.9									1395-4.061
11	1301	1397	4.063	20*	✓			9.4									
12	1302	1408	4.947	15	✓			9.9									
13	1303	1421	5.786	10	✓			10.6									
14	1304	1488	5.970	5	✓			10.8		✓							
15	1305	3033	6.938	0	✓			VIA	✓				✓	✓	✓		
16	1306			CM+10	✓	20				✓✓	✓✓						
17	1307			CM	✓	10				✓✓	✓✓						
18	1308			5	✓					✓✓	✓✓	✓✓					
19								MR	TB	MR	TD	TB	TB	GC	CP	MR	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s): MR

Bottom Depth: 167 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0819	0119
Bottom	0823	0123
End	0840	0140

Positional Information

Start Lat: 48 ° 43.43 N
Lon: 125 ° 40.88 W

Bottom Lat: 48 ° 43.44 N
Lon: 125 ° 40.92 W

End Lat: 48 ° 43.53 N
Lon: 125 ° 40.93 W

0.222501 N

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

NUTS - RED RACK

Water Properties Group

Rosette Log

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

Cruise ID: 700-36 Station: LC1Event #: 148Ship: TullyUTC Date (dd mmm yyyy): 8 8 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIL	PH	NALC CHL	DOC CDOM	018	Phyto	triples	Flask Serial #	Value mL · L ⁻¹	
1	1	1309	B-10	✓	80	7.9	✓	✓	✓						1490	2.753	CDOM + DOC
2	2	1310	70	✓	-	8.1	✓				✓				1144	2.695	were taken
3	3	1311	50	✓		8.7	✓	✓				✓			3181	2.876	very last as they
4	4	1312	40	✓		9.5	✓								1407	3.596	were missed
5	5	1313	30	✓		9.9	✓								1321	4.427	
6	6	1314	20	✓		10.5	✓		✓						1481	5.423	
7	7	1315	15	✓		10.8	✓				✓	✓			2084	5.954	
8	12	1316	10	✓		10.8	✓				✓				1476	5.857	1365 - 5.911
9	13	1317	5	✓		11.9	✓								1180	7.346	
10	22	1318	0	✓		12.3	✓				✓	✓			2086	7.409	
11	8	1319	PIC	✓	15												M
12	9	1320	PIC	✓	15												M
13	10	1321	Max-10	✓	15						✓						
14	14	1322	chl-Max	✓	5						✓						
15	15	1323	chl-Max	✓	5												M
16	16	1324	chl-Max	✓	5												
17	11	1325	15	✓													
18	17	1326	5	✓													
19	18	1327	5	✓													
20	19	1328	5	✓													Lizzy
21	20	1329	5	✓													Lizzy
22	21	1330	5	✓													
23																	
24																	

Niskin # +
Firing Order
Reversed

2 Bottles fired +
not recorded

Niskin 10 ⇒ 24th fired
Sample 1318

Watchkeeper(s): TBBottom Depth: 90 mTransmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1038	0338
Bottom	1040	0340
End	1055	0355

Positional Information

Start
Lat: 48 ° 50.44 N
Lon: 125 ° 27.66 W

Bottom
Lat: 48 ° 50.447 N
Lon: 125 ° 27.64 W

End
Lat: 48 ° 50.45 N
Lon: 125 ° 27.56 W

0222501N

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹

Std Value: _____ mL · L⁻¹

*Date Run: 08/08/10

Analyst: AJ

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

Nuts = Yellow

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: BC1

Event #: 150

Ship: Tully

UTC Date (dd mmm yyyy): 09 aug 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	PH	DIC	ALK			Flask Serial #	Value mL · L ⁻¹	
1		1331	B-5	✓ 435	6.3								1490	0.904	redraw X2 161 on first row
2		1332	B-20	✓ 420	6.3			✓					1144	0.911	3181-0.913
3		1333	B-50	✓ 400	6.3		✓						1407	0.919	
4		1334	B-70	✓ 375	6.3								1321	0.970	
5		1335	300	✓	6.6								1481	1.422	
6		1336	225	✓	6.9	✓							2084	1.764	
7		1337	150	✓	7.5			✓					1476	2.669	
8		1338	100	✓	7.8								1365	3.008	
9		1339	50	✓	7.9				✓				1180	4.696	
10		1340	30	✓	missed								2086	5.212	
11		1341	20	✓	9.0								1387	4.964	jellies
12		1342	5	✓	11.8		✓						1406	7.338	
13		1343	0	✓	12.2								2033	7.420	
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24					TB			WE	CP						

Watchkeeper(s): D/TB

Bottom Depth: 450 m

Transmisso Cleaned: Y N

	UTC	Local
Time		
Start	10:26	03:26
Bottom	10:35	03:35
End	10:55	03:55

Positional Information

Start
Lat: 48 ° 22.42 N
Lon: 125 ° 55.06 WBottom
Lat: 48 ° 22.48 N
Lon: 125 ° 55.01 WEnd
Lat: 48 ° 22.51 N
Lon: 125 ° 55.05 W

TH10=0.222641

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: 2010-36 Station: C9Event #: 154Ship: TullyUTC Date (dd mmm yyyy): 09 AUG 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			PH	DIC ALK	HAC chl	triple phyto	SOP	DOC CDOM	Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal							Flask Serial #	Value mL · L ⁻¹	
1	1	1344	B-10	✓ 602	5.6									94	0.402	
2	2	1345	500	✓	5.9		✓							1314	0.635	
3	3	1346	400	✓	6.1									1247	0.859	3016-0.850
4	4	1347	300	✓	6.3									1473	1.396	
5	5	1348	250	✓	6.6			✓						1300	1.693	
6	6	1349	200	✓	6.9						✓	✓		1307	2.251	
7	7	1350	175	✓	7.1			✓						1318	3.023	
8	8	1351	150	✓	7.4									1330	3.063	-stopper popped
9	9	1352	125	✓	7.7	✓								1298	3.330	
10	10	1353	100	✓	7.6									1392	4.072	
11	11	1354	90	✓	7.7									1395	4.365	
12	12	1355	80	✓	7.8 18.0									1397	4.860	1408-4.853
13	13	1356	70	✓	8.3			✓						1421	5.265	
14	14	1357	50	✓	8.8							✓		1488	6.021	
15	15	1358	30	✓	9.7									3033	6.143	
16	17	1359	20	✓	10.6							✓		708	6.420	
17	19	1360	5	✓	12.0		✓					✓	✓	1322	7.193	-actual # of chl collected
18	23	1361	0	✓	12.0							✓	✓	3203	7.195	not #1364
19	16	1362	CIMax+10	✓ 25						✓						
20	18	1363	chl Max	✓ 15						✓						
21	20	1364	5	✓						✓	✓					LIZZY
22	21	1365	5	✓												LIZZY
23	22	1366	5	✓												LIZZY
24																NOT FIRED N2O fired twice

Watchkeeper(s): N²/DIBottom Depth: 610 mTransmissio Cleaned: (Y) / N

	UTC	Local
Start	1428	0728
Bottom	1440	0740
End	1512	0812

Positional Information

Start
Lat: 48 ° 25.900 N
Lon: 126 ° 13.650 WBottom
Lat: 48 ° 25.915 N
Lon: 126 ° 13.681 WEnd
Lat: 48 ° 25.902 N
Lon: 126 ° 13.685 W0.222641 N

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹Std Value: _____ mL · L⁻¹*Date Run: 09/08/10Analyst: N²

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

Nuts: Blue.

TMR

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: C9 Event #: 155 Ship: Tully UTC Date (dd|mmm|yyyy): 09 | Aug | 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	1367	500			✓	✓			
2	2	1368	400			✓	✓			
3	3	1369	275			✓	✓			
4	4	1370	230			✓	✓			
5	5	1371	200			✓	✓	✓		
6	6	1372	175			✓	✓			
7	7	1373	150			✓	✓			
8	8	1374	125			✓	✓			
9	9	1375	100			✓	✓	✓		
10	10	1376	50			✓	✓	✓		
11	11	1377	20			✓	✓	✓		
12	12	1378	10			✓	✓	✓		
13										
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21										
22										
23										
24										

Watchkeeper(s): ER, CS, JM

Bottom Depth: 600 m

Transmisso Cleaned: Y / N

	UTC	Local
Start	1521	0821
Bottom	15:36	8:36
End		

Positional Information

Start

Lat: 48 ° 25.91' N

Lon: 126 ° 13.68' W

Bottom

Lat: 48 ° 25.91' N

Lon: 126 ° 13.68' 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

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: BC2Event #: 159Ship: TullyUTC Date (dd mmm yyyy): 10 Aug 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken							Oxygen Titrations		Comments	
			Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	PH	DK	ALK	Flask Serial #	Value mL · L ⁻¹			
1	1	1379	B-10	☒ 860	4.9								94	0.237	
2	2	1380	B-20	☒ 850	15.2			✓					1314	0.253	1247-0.259
3	3	1381	B-30	☒ 840	5.0		✓						3016	0.249	
4	4	1382	B-50	☒ 820	5.2								1300	0.248	
5	5	1383	B-80	☒ 790	5.5								1473	0.253	
6	6	1384	B-100	☒ 750	5.7								1307	0.272	
7	7	1385	700	☒	5.8								1318	0.290	
8	8	1386	600	☒	5.9	✓							745	0.461	
9	9	1387	200	☒	7.4								1298	2.661	
10	10	1388	150	☒	7.6				✓				1392	3.103	
11	11	1389	100	☒	7.9								1395	4.127	
12	12	1390	75	☒	8.0								1397	4.661	1408-4.660
13	13	1391	50	☒	9.1			✓					1427	5.966	
14	14	1392	30	☒	10.1								1488	6.093	
15	15	1393	20	☒	10.9								3033	6.505	
16	16	1394	5	☒	12.3	✓	✓	✓	✓				708	7.012	
17															
18		loop 50											1322	6.302	
19															
20		loop LC12											3203	6.107	LC12 5m loop
21															
22															
23															
24						TB	TB	TB	WE	CP					

Watchkeeper(s): DI TBBottom Depth: 866 mTransmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	09:55	02:55
Bottom	10:07	03:07
End	10:38	03:38

Positional Information

Start
Lat: 48 ° 18.76 N
Lon: 126 ° 05.37 WBottom
Lat: 48 ° 18.73 N
Lon: 126 ° 05.45 WEnd
Lat: 48 ° 18.69 N
Lon: 126 ° 05.57 W

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹Std Value: _____ mL · L⁻¹*Date Run: 10/08/10Analyst: N2

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

Nuts: Yellow

Biology Rosette

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: LC 12

Event #: 160

Ship: Tully

UTC Date (dd mmm yyyy): 10 08 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	HPDC	CHL	phyto	microc.	triple	Flask Serial #	Value mL · L ⁻¹	
1	1	1395	Pic	✓ 40											
2	2	1396	Pic	✓ 40											
3	3	1397	Max-10	✓ 28				✓✓	✓✓						
4	4	1398	ChlMax	✓ 18				✓✓	✓✓						
5	5	1399	ChlMax	✓ 18											
6	6	1400	ChlMax	✓ 18											
7	7	1401	15	✓											
8	8	1402	5	✓											
9	9	1403	5	✓											
10	10	1404	5	✓				✓✓	✓✓	✓✓		✓			-ran out of water
11	11	1427	5	✓											Lizzu
12	12	1428	5	✓											Lizzu
13															
14															
15															phyto taken from Lizzu's subsample.
16															chl diss vol.
17															
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s): TR

Bottom Depth: 2522 m

Transmissio Cleaned: (Y) N

Time	UTC	Local
Start	1329	0630
Bottom	1331	0631
End	1341	0641

Positional Information

Start Lat: 48 ° 15.02 N
Lon: 126 ° 39.95 W

Start

Bottom

Lat: 48 ° 15.05 N
Lon: 126 ° 39.93 W

End

Lat: 48 ° 15.01 N
Lon: 126 ° 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

TMR

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: C12Event #: 165Ship: TullyUTC Date (dd mmm yyyy): 10 Aug 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	TM	O ₂				Flask Serial #	Value mL · L ⁻¹	
1	1	1429	2000			✓	✓	✓							
2	2	1430	1500			✓	✓	✓							
3	3	1431	1000			✓	✓	✓							
4	4	1432	800			✓	✓	✓							
5	5	1433	500			✓	✓	✓							
6	6	1434	400			✓	✓	✓							
7	7	1435	300			✓	✓	✓	✓						
8	8	1436	200			✓	✓	✓	✓						
9	9	1437	150			✓	✓	✓							
10	10	1438	100			✓	✓	✓	✓						
11	11	1439	50			✓	✓	✓	✓						
12	12	1440	20			✓	✓	✓	✓						
13															
14															
15															
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21															
22															
23															
24															

Watchkeeper(s):
ER, JH, CSBottom Depth: 2500 m

Transmissio Cleaned: Y / N

Time	UTC	Local
Start	1702	1002
Bottom	1757	1057
End		

Positional Information

Start
Lat: 48 ° 15.000 N
Lon: 126 ° 40.021 WBottom
Lat: 48 ° 14.902 N
Lon: 126 ° 40.057 WEnd
Lat: ° N
Lon: ° 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: 2010-36 Station: LC 12Event #: 163 / 164 Ship: TullyUTC Date (dd mmm yyyy): 10 08 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			Oxygen Titrations						Comments		
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	pH	DIC	ALK	SO ₄	DOC	Flask Serial #		Value mL · L ⁻¹	
1	1	1405	B-10 ⁺	✓ 2537	3.0			✓						1477	1.737	LARS stuck.
2	2	1406	2600	✓ 2537	2.9									3028	1.731	
3	3	1407	2200	✓	3.0									1316	1.629	Vent open on 3. Leak.
4	4	1408	1800	✓	3.4				✓					1313	1.086	
5	5	1409	1400	✓	4.0									3069	0.577	
6	6	1410	1000	✓	4.6	✓								3108	0.291	
7	7	1411	800	✓	5.1									3124	0.225	
8	8	1412	600	✓	5.7									2073	0.317	
9	9	1413	500	✓	5.8					✓				3180	0.471	
10	10	1414	400	✓	6.2				✓					2019	0.738	
11	11	1415	300	✓	6.7									3126	1.548	
12	12	1416	200	✓	7.3						✓			3043	3.118	2082 - 3.120
13	13	1417	150	✓	7.7									2055	3.388	
14	14	1418	125	✓	7.9									3084	4.051	
15	15	1419	100	✓	7.9									1498	4.368	
16	16	1420	90	✓	7.9									668	5.306	
17	17	1421	70	✓	8.3			✓						1174	6.011	
18	18	1422	50	✓	8.8						✓			622	6.402	leaking on back of spigot
19	19	1423	30	✓	11.0									657	6.337	
20	20	1424	20	✓	11.8						✓	✓		715	6.497	
21	21	1425	5	✓	13.7									1389	6.178	
22	22	1426	0	✓	13.7	✓	✓	✓	✓	✓	✓	✓		1312	6.174	
23		1427														
24		1428			N ₂	XBC	N ₂	WELP	TB	CS						

Watchkeeper(s): TB, DI/N²Bottom Depth: 2520 mTransmisso Cleaned: (Y) N

Time	UTC	Local
Start	1445	0745
Bottom	1529	0829
End	1645	0945

Positional Information

Start
Lat: 48 ° 15.04 N
Lon: 126 ° 40.00 WBottom
Lat: 48 ° 15.04 N
Lon: 126 ° 40.00 WEnd
Lat: 48 ° 15.06 N
Lon: 126 ° 40.142 W

Tho = 0.22261N

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹Std Value: _____ mL · L⁻¹*Date Run: 1-1Analyst: L. J. J.

* 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: 2010-36 Station: BC3Event #: 167Ship: TullyUTC Date (dd/mm/yyyy): 11/08/2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			pH	DIC	ALK					Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal								Flask Serial #	Value mL · L ⁻¹	
1	1	1441	B-10	✓ 915	4.6										3209	0.275	
2	2	1442	B-30	✓ 900	4.7	✓									3184	0.257	
3	3	1443	B-50	✓ 880	4.9			✓							1317	0.251	
4	4	1444	B-70	✓ 850											3191	0.242	thermometer stopped
5	5	1445	B-100	✓ 810											3166	0.252	working - stopped
6	6	1446	700	✓			✓								1478	0.279	draw temp - reading 16.5 °C
7	7	1447	600	✓											2064	0.461	new battery?
8	8	1448	400	✓	✓				✓						3009	0.801	possible dripping
9	9	1449	200	✓											3038	2.689	from niskin 5 spigot
10	10	1450	180	✓											3204	2.987	1497 - 0.799
11	11	1451	100	✓											3174	4.437	
12	12	1452	75	✓											3040	5.091	
13	13	1453	50	✓											2032	5.677	
14	14	1454	30	✓				✓							3098	5.985	
15	15	1455	20	✓	✓										3052	6.226	3171 - 6.227
16	16	1456	5	✓	↓	↓	✓	↓	↓						1492	6.699	
17																	
18																	
19																	
20		1457	5	✓													triggered for balance
21		1458	5	✓													triggered for balance
22																	
23																	
24																	

Watchkeeper(s): TB DI 930.Bottom Depth: 890 mTransmisso Cleaned: (Y) / N

Time	UTC	Local
Start	10:19	03:19
Bottom	10:39	03:39
End	11:12	04:12

Positional Information

Lat:	48 ° 19.87	N
Lon:	126 ° 02.53	W

Lat:	48 ° 19.84	N
Lon:	126 ° 02.62	W

Lat:	48 ° 19.81	N
Lon:	126 ° 02.68	W

0.222339N

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹Std Value: _____ mL · L⁻¹*Date Run: 11/08/10Analyst: N2

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

Nuts = Blue.

Biology Rosette.

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: MLO

Event #: 168

Ship: Tully

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

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken										Oxygen Titrations		Comments	
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	PH	HPLC	DIC	ATK	phyto	marcos	trip	sal	Flask Serial #		Value mL · L ⁻¹
1	7	1459	P4C	✓ 40								✓						
2	8	1460	P4C	✓ 40								✓						
3	20	1461	Max-10	✓ 15						✓	✓							
4	22	1462	chlMax	✓ 5						✓	✓							
5	23	1463	chlMax	✓ 5								✓						
6	24	1464	chlMax	✓ 5								✓						
7	12	1465	15	✓								✓						
8	15	1466	5	✓								✓						
9	16	1467	5	✓								✓						
10	17	1468	5	✓					✓	✓	✓		✓					
11	18	1469	5	✓														Lizzy
12	19	1470	5	✓														Lizzy
13	1	1471	B-10	✓ 230	✓ 6.9	✓		✓		✓				✓		1201	2.010	
14	2	1472	150	✓	7.0											1459	2.078	
15	3	1473	120	✓	7.2											1327	2.376	
16	4	1474	100	✓	✓ 7.5											570	2.898	1414 - 2.891
17	5	1475	90	✓	7.7					✓						3051	3.339	
18	6	1476	50*	✓	8.1											2056	5.242	
19	9	1477	30	✓	9.1			✓								1326	5.771	
20	10	1478	20	✓	10.0											3116	6.165	
21	11	1479	15	✓	10.5	✓										612	6.320	
22	13	1480	10	✓	11.1											1335	6.589	
23	14	1481	5	✓	12.2									✓		3178	6.956	
24	20	1482	0	✓	12.4											2000	7.037	

Watchkeeper(s): TB

Bottom Depth: 240 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1554	0854
Bottom	1559	0859
End	1623	0923

Positional Information

Start
Lat: 47 ° 51.51 N
Lon: 125 ° 10.47 W

Bottom
Lat: 45 47 ° 51.52 N
Lon: 125 ° 10.46 W

End
Lat: 45 47 ° 51.48 N
Lon: 125 ° 10.27 W

0.222339N

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

loop MLO

Water Properties Group

Rosette Log

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

Cruise ID: 200-36

Station: WH-1

Event #: 169 170/171 Ship: Tully

UTC Date (dd|mmm|yyyy): 11 | 8 | 10

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Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken										Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	Chl a	AMT HPLC	PAR	pH	Alc ALV	O ₂	3 rd 02	
1	1483	1477	1.444	B-10	✓ 43	✓ 7.2	✓					✓				OT
2	1484	3028	1.451	40	✓	7.3		✓					✓			
3	1485	1316	2.007	30	✓	7.475								✓		1313 - 2.017
4	1486	3069	5.493	20*	✓	10.3						✓				- mistfire? looks like 7m
5	1487	3108	2.943	15	✓	8.2										
6	1488	3124	3.621	10	✓	8.8	✓									
7	1489	2073	6.235	5	✓	11.3		✓						✓		
8	1490	3180	7.623	0		13.3	✓							✓		
9	1491			CM+10	✓ 20				✓✓	✓✓						
10	1492			CM	✓ 10				✓✓	✓✓						
11	1493			5	✓				✓✓	✓✓	✓✓				✓	
12															892	
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Watchkeeper(s): H.T.

Bottom Depth: 50.5 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2247	1547
Bottom	2249	1549
End	2302	1602

Positional Information

Lat: 47 ° 08.47 N

Lon: 124 ° 23.98 W

Lat: 47 ° 08.47 N

Lon: 124 ° 24.02 W

Lat: 47 ° 08.51 N

Lon: 124 ° 24.11 W

0 222339 N

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: 2010-36 Station: WH 3 Event #: 174/175 Ship: TULLY UTC Date (dd|mmm|yyyy): 11 | 8 | 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 HPLC	PHYTO	pH	DIC ALK	O ₂	3 rd O ₂	
1	1494	1201	1.721	B-10	✓	100	✓									
2	1495	1459	1.693	175	✓	100		✓								
3	1496	1327	1.715	150	✓	100										
4	1497	570	1.715	125	✓	100										
5	1498	1414	1.706	100	✓	100										
6	1499	2056	1.851	90	✓											
7	1500	1326	2.597	80	✓											
8	1501	3116	3.275	70	✓											
9	1502	612	3.716	50	✓											
10	1503	1335	4.933	30	✓											
11	1504	3178	5.401	20*	✓											
12	1505	2000	6.156	10	✓											
13	1506	3135	7.209	5	✓											
14	1507	1460	7.314	0												
15	1508			CM+10	✓	20			✓✓	✓✓						
16	1509			CM	✓	10			✓✓	✓✓						
17	1510			5	✓				✓✓	✓✓	✓✓					
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): 4 m.

Bottom Depth: 109 m

Transmisso Cleaned: Y / N

	UTC	Local
Start	0105	1805
Bottom	0107	1807
End	0122	1822

Positional Information
 Start Lat: 47° 08.44 N
 Lon: 124° 41.49 W

Bottom Lat: 47° 08.44 N
 Lon: 124° 41.48 W

End Lat: 47° 09.45 N
 Lon: 124° 41.50 W

0.222386 N

Oxygen Info For This Cast
 Blank Value: _____ mL · L⁻¹
 Std Value: _____ mL · L⁻¹
 *Date Run: 12 | 08 | 10
 Analyst: N

* 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: 2010-36 Station: WH5 Event #: 177 Ship: Tully UTC Date (dd mmm yyyy): 12 Aug 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken									Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	TM	HF					Flask Serial #	Value mL · L ⁻¹	
1	1	1511	1200			✓		✓	✓							
2	2	1512	175			✓		✓								
3	3	1513	150			✓		✓	✓							
4	4	1514	125			✓		✓								
5	5	1515	115			✓		✓	✓							
6	6	1516	100			✓		✓	✓							
7	7	1517	90			✓		✓								
8	8	1518	75			✓		✓								
9	9	1519	50			✓		✓	✓							
10	10	1520	30			✓		✓								
11	11	1521	20			✓		✓								
12	12	1522	10			✓		✓	✓							
13																
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Watchkeeper(s): ER, JM, CS

Bottom Depth: 250 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0316	20:16
Bottom	0321	20:21
End	0332	8:32

Positional Information
Start
Lat: 47 ° 8.490 N
Lon: 124 ° 58.743 W

Bottom
Lat: 47 ° 08.465 N
Lon: 124 ° 58.779 W

End
Lat: 47 ° 08.476 N
Lon: 124 ° 58.863 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: 2010-36 Station: WH 5 Event #: 178 Ship: TULLY UTC Date (dd|mmm|yyyy): 12 | 8 | 10

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken										Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ✓ Pressure	Oxy T	Nut	Sal	Chl a	PH	Alc	Alc	0	13	30	
1	1523	1477	1.533	B-10	✓ 245	16.8	✓									
2	1524	3028	1.543	400	✓ 245	6.8		✓								ALL SAME
3	1525	1316	1.512	300	✓ 245	6.8										
4	1526	1313	1.535	250	✓ 245	6.8										
5	1527	3069	1.650	200	✓	6.9										
6	1528	3108	1.719	175	✓	7.0										13124 7.0 C 1.720
7	1529	2073	1.987	150	✓	7.2					✓		✓			
8	1530	3180	2.676	125	✓	7.4										
9	1531	2019	3.647	100	✓	7.6										
10	1532	3126	3.711	90	✓	7.7				✓						
11	1533	3043	4.057	80	✓	7.8										
12	1534	2082	4.134	70	✓	7.8										2055 7.9 C 4.133
13	1535	3084	5.533	50	✓	8.2										
14	1536	1498	6.362	30*	✓	9.0										
15	1537	1174	6.482	20	✓	10.0										
16	1538	622	6.664	10	✓	13.1							✓			
17	1539	1367	6.622	5	✓	13.5		✓								
18	1540	657	6.573	0	✓	13.5	✓						✓			
19	1541			CM+0	✓ 30				✓✓	✓✓						
20	1542			CM	✓ 20				✓✓	✓✓						
21	1543			5	✓				✓✓	✓✓	✓✓				✓	
22	1544			5	✓											LIZZIE
23	1545			5	✓											LIZZIE
24																

Watchkeeper(s): H. A.

Bottom Depth: 252 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0339	2039
Bottom	0344	2044
End	0404	2104

Positional Information

Lat:	47° 08.46	N
Lon:	124° 58.76	W

Start

Lat:	47° 08.46	N
Lon:	124° 58.77	W

Bottom

Lat:	47° 08.47	N
Lon:	124° 58.75	W

End

0.222386N

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹

Std Value: _____ mL · L⁻¹

*Date Run: 1 | 1 | 1

Analyst: N2

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: WH7 Event #: 182 Ship: Tully UTC Date (dd/mmm/yyyy): 12 Aug 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	1544	1450	✓		✓		✓	✓	
2	2	1545	1000	✓		✓		✓		
3	3	1546	800	✓		✓		✓		
4	4	1547	600	✓		✓		✓	✓	
5	5	1548	500	✓		✓		✓		
6	6	1549	400	✓		✓		✓		
7	7	1550	300	✓		✓		✓	✓	
8	8	1551	200	✓		✓		✓		
9	9	1552	150	✓		✓		✓	✓	
10	10	1553	100	✓		✓		✓		
11	11	1554	50	✓		✓		✓		
12	12	1555	20	✓		✓		✓	✓	
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Watchkeeper(s): ER, CS, JM

Bottom Depth: 1530 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0840	0140
Bottom	0930	0230
End	1048	0348

Positional Information
Start
Lat: 47 ° 08.457 N
Lon: 125 ° 15.364 W

Bottom
Lat: 47 ° 08.483 N
Lon: 125 ° 15.339 W

End
Lat: 47 ° 08.462 N
Lon: 125 ° 15.381 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

Biol Rosette.

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: WH 9

Event #: 184/185

Ship: Tully

UTC Date (dd/mm/yyyy): 12 08 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken							Oxygen Titrations		Comments			
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	HPLC	CHL	Mar105	phyto	triple O	DOL		Flask Serial #	Value mL · L ⁻¹	
1	2	1556	Pyc	✓ 80						✓							
2	3	1557	Pyc	✓ 80						✓							
3	4	1558	Max10	✓ 45					✓	✓							comp freeze,
4	5	1559	chlMax	✓ 35					✓	✓				✓			
5	6	1560	chlMax	✓ 35						✓							
6	7	1561	chlMax	✓ 35						✓				✓			
7	8	1562	15	✓						✓				✓			
8	9	1563	5	✓						✓							
9	10	1564	5	✓						✓							
10	11	1565	5	✓					✓	✓		✓	✓	✓			
11	12	1566	5	✓													Lizzy
12	13	1567	5	✓													Lizzy
13	1	1589	100	✓ 100										✓			
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Watchkeeper(s): TR

Bottom Depth: 2500 m

Transmisso Cleaned: (Y) 1 N

Time	UTC	Local
Start	1706	1006
Bottom	1709	1009
End	1727	1027

Positional Information

Start
Lat: 47 ° 08.46 N
Lon: 126 ° 12.05 W

Bottom
Lat: 47 ° 08.47 N
Lon: 126 ° 12.05 W

End
Lat: 47 ° 08.47 N
Lon: 126 ° 11.94 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: 2010-36 Station: WH9 Event #: 186 Ship: Tully UTC Date (dd|mmm|yyyy): 12 | 08 | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			DC	PH	Temp	O18	T	Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal						Flask Serial #	Value mL · L ⁻¹	
1		1568	8-10	✓ 2525								2.9	860	1.756	
2		1569	2200	✓					✓			2.9	861	1.650	
3		1570	1800	✓								3.3	862	1.140	
4		1571	1230	✓								4.0	863	0.349	
5		1572	1000	✓								4.6	864	0.248	
6		1573	800	✓				✓				5.0	865	0.219	
7		1574	600	✓								5.6	866	0.374	
8		1575	470	✓	✓							5.9	867	0.815	868 - 6.0 0.817
9		1576	400	✓								6.0	869	1.429	
10		1577	300	✓							✓	6.5	870	2.639	
11		1578	200	✓		✓						7.2	871	3.792	OT
12		1579	150	✓								7.4	872	4.601	
13		1580	125	✓								7.6	873	4.691	
14		1581	100	✓								7.8	874	5.650	
15		1582	90	✓								8.1	875	5.867	OT
16		1583	70	✓								8.6	876	6.279	
17		1584	50	✓								9.3	877	6.521	
18		1585	30	✓								11.7	878	6.296	0.62881 153352
19		1586	20	✓	✓				✓		✓	13.8	879	6.189	883 - 13.96.193
20		1587	5	✓								14.0	880	6.171	
21		1588	0	✓	✓	✓	✓	✓	✓		✓	14.0	881	6.168	884 - 14.1 6.169
22															
23													882	6.114	Loop - bubbles
24															

Watchkeeper(s): DL TB.Bottom Depth: 2502 mTransmisso Cleaned: (Y) N

	UTC	Local
Time		
Start	18:13	11:13
Bottom	19:09	12:09
End	20:31	13:31

Positional Information

Start
Lat: 47 ° 8.46 N
Lon: 126 ° 12.00 WBottom
Lat: 47 ° 08 45 N
Lon: 126 ° 11.98 WEnd
Lat: 47 ° 08.46 N
Lon: 126 ° 12.07 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

Nuts = Yellow

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36

Station: A 13

Event #: 198/189

Ship: TULLY

UTC Date (dd|mmm|yyyy): 13 | 0 | 10

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken										Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy 7	Nut	Sal	Chl a	PH HPLC	PH10	P17	Alk ALK	O13	3x O2	
1	1590	3209	1.752	B-10	✓	2565	✓					✓	✓			
2	1591	3184	1.446	2000	✓			✓								
3	1592	1317	1.127	1800	✓											
4	1593	3191	0.590	1400	✓							✓				Bot 22
5	1594	3166	0.248	1000	✓											471 0.2635, 0 c
6	1595	1478	0.223	800	✓											
7	1596	2064	0.476	600	✓											
8	1597	3009	0.659	500	✓											
9	1598	1497	1.119	400	✓									✓		
10	1599	3038	2.399	300	✓											Bot 23
11	1600	3204	4.020	200	✓											1401 9.042.4 c
12	1601	3174	4.990	150	✓								✓			
13	1602	3040	5.494	125	✓											
14	1603	2032	6.013	100	✓											
15	1604	3098	6.354	90	✓											
16	1605	3052	6.579	70	✓							✓				
17	1606	3171	6.654	50*	✓											
18	1607	1492	6.599	30	✓											Bot 24
19	1608	3057	6.200	20	✓											1338 6.203 3.7 c
20	1609	2035	6.006	5	✓									✓		
21	1610	3109	6.006	0	✓									✓		
22	1611			CM+10	✓	45			✓	✓						
23	1612			CM	✓	35			✓	✓						
24	1613			0	✓	10			✓	✓	✓				✓	772

Watchkeeper(s): H.M./M.N.

Bottom Depth: 2541 m

Transmisso Cleaned: Y / N

	UTC	Local
Time		
Start	0146	1846
Bottom	0231	1931
End	0340	2040

Positional Information

Lat:	47 ° 21.01	N
Lon:	126 ° 48.00	W

Bottom

Lat:	47 ° 20.99	N
Lon:	126 ° 49.02	W

End

Lat:	47 ° 21.02	N
Lon:	126 ° 49.01	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

THR

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: A13 Event #: 190 Ship: Tully UTC Date (dd mmm/yyyy): 13 Aug 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	1614	2000	✓		✓		✓		
2	2	1615	1400	✓		✓		✓		
3	3	1616	1000	✓		✓		✓		
4	4	1617	800	✓		✓		✓		
5	5	1618	600	✓	597	✓		✓		
6	6	1619	400	✓		✓		✓		
7	7	1620	300	✓	298	✓		✓		
8	8	1621	200	✓		✓		✓		
9	9	1622	150	✓		✓		✓		
10	10	1623	100	✓		✓		✓		
11	11	1624	50	✓		✓		✓		
12	12	1625	20	✓		✓		✓		
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s): DL, CS, JM

Bottom Depth: 2540 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0354	2054
Bottom	0445	2145
End	0554	2254

Positional Information
Start
Lat: 47 ° 21.035 N
Lon: 126 ° 48.018 W

Bottom
Lat: 47 ° 21.010 N
Lon: 126 ° 48.033 W

End
Lat: 47 ° 21.023 N
Lon: 126 ° 48.027 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

Biology Rosette

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: A11

Event #: 194 + 195 Ship: Tully

UTC Date (dd/mm/yyyy): 13 08 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		1626	Pvc	✓ 50						
2		1627	Pvc	✓ 50						
3		1628	Max-10	✓ 30						
4		1629	CHL-Max	✓ 20						
5		1630	CHL-Max	✓ 20						
6		1631	chl-max	✓ 20						
7		1632	5	✓						
8		1633	5							
9		1634	5							
10		1635	5							
11		1636	5							Lizzy
12		1637	5							Lizzy
13		1638	5							
14										
15										
16										
17										
18		1639	5	✓						for ballast
19		1640	5	✓						for ballast
20										
21										
22										*file 195 only
23										has final surface
24										data - need surface

Watchkeeper(s): TB D!

Bottom Depth: 1540 m

Transmissio Cleaned: (Y) 1 N

Time	UTC	Local
Start	14:06	07:06
Bottom	14:10	07:10
End	14:22	07:22

Positional Information

Start

Lat: 47 ° 54.00 N

Lon: 125 ° 54.02 W

Bottom

Lat: 47 ° 54.00 N

Lon: 125 ° 54.02 W

End

Lat: 47 ° 54.01 N

Lon: 125 ° 54.06 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

TMR

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: A10Event #: 196Ship: TullyUTC Date (dd mmm yyyy): 13 Aug 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			Oxygen Titrations							Comments	
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	TM	HC	1/2					Flask Serial #	Value mL · L ⁻¹
1	1	1641	800	✓		✓		✓	✓							
2	2	1642	600	✓		✓		✓	✓							
3	3	1643	500	✓		✓		✓								
4	4	1644	400	✓		✓		✓								
5	5	1645	300	✓		✓		✓								
6	6	1646	200	✓		✓		✓	✓							
7	7	1647	150	✓		✓		✓								
8	8	1648	125	✓		✓		✓	✓							
9	9	1649	100	✓		✓		✓								
10	10	1650	80	✓		✓		✓								
11	11	1651	50	✓		✓		✓								
12	12	1652	25			✓		✓	✓							
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s):
ER, CS, JMBottom Depth: 910 m

Transmissio Cleaned: Y / N

	Time	UTC	Local
Start		1536	0836
Bottom		1602	0902
End		1649	0949

Positional Information

Start
Lat: 47 ° 59.021 N
Lon: 125 ° 43.384 WBottom
Lat: 47 ° 59.021 N
Lon: 125 ° 43.378 WEnd
Lat: 47 ° 59.045 N
Lon: 125 ° 43.227 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: 200-36 Station: A10Event #: 197-8Ship: TullyUTC Date (dd mmm yyyy): 13 aug 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			DIC	pH	SiO ₄	HPLC CH ₄	phyto	triple O	Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal							Flask Serial #	Value mL · L ⁻¹	
1	1	1653	B-10	✓	913	✓		✓						1477	0.277	
2	2	1654	800	✓			✓							3028	0.260	
3	3	1655	600	✓		✓								1316	0.420	1313 - 0.423
4	4	1656	500	✓					✓					3069	0.633	
5	5	1657	400	✓										3108	0.989	OT
6	6	1658	300	✓				✓						3124	1.511	
7	7	1659	200	✓						✓				2073	2.678	
8	8	1660	150	✓		✓								3180	3.465	
9	9	1661	125	✓										2019	3.572	
10	10	1662	100	✓				✓						3126	4.615	
11	11	1663	90	✓										3043	5.242	
12	12	1664	70	✓										2082	5.940	
13	13	1665	50	✓										2055	6.318	3084 - 6.312
14	14	1666	30	✓					✓					1498	6.330	redraw DO
15	15	1667	23*	✓										1174	6.461	
16	19	1668	5	✓			✓	✓		✓			✓	622	6.350	
17	20	1669	0	✓				✓		✓				1367	6.339	got cracked before by mistake
18	16	1670	MaxID	✓	23						✓					
19	17	1671	chlMax	✓	13						✓					
20	18	1672	5	✓							✓	✓	✓			
21														657	6.291	loop A10
22																from bad flow
23																outflow
24						N ²	N ²	DI	CP	WE	DI	TB	TB	CP		

Watchkeeper(s): DI TBBottom Depth: 908 mTransmisso Cleaned: (Y) N

	UTC	Local
Time		
Start	1700	1000
Bottom	1716	1016
End	17:54	10:54

Positional Information

Start
Lat: 47 ° 59.015 N
Lon: 125 ° 43.42 WBottom
Lat: 47 ° 59.03 N
Lon: 125 ° 43.39 WEnd
Lat: 47 ° 59.03 N
Lon: 125 ° 43.39 W0.222146

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

Nuts: Blue

Water Properties Group

Rosette Log

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

Cruise ID: 2010 36 Station: A9Event #: 199/200Ship: TullyUTC Date (dd mmm yyyy): 13 08 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments		
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	DIC Air	pH	chl	phyc	SO ₄	triple O	T°		Flask Serial #	Value mL · L ⁻¹
1	1	1673	8-10	✓ 337	✓	✓		✓	✓					6.3	94	1.211	
2	2	1674	250	✓			✓						✓	6.6	1314	1.792	
3	3	1675	200	✓				✓						6.8	1247	2.079	
4	4	1676	175	✓		✓								7.1	3016	2.567	1300 7.2 2,560
5	5	1677	150	✓					✓					7.3	1473	2.856	
6	6	1678	125	✓										7.6	1307	3.523	
7	7	1679	100	✓										7.7	1318	4.040	
8	8	1680	90	✓										7.7	745	4.167	
9	9	1681	70	✓										7.7	1298	5.682	
10	10	1682	50	✓				✓						8.4	1392	5.809	
11	11	1683	40	✓										8.7	1395	6.396	
12	12	1684	30	✓										9.6	1397	6.277	
13	13	1685	20*	✓		✓								10.5	1408	6.296	
14	15	1686	15	✓		✓								10.9	1421	6.352	1488 - 11.0 6.351
15	16	1687	10	✓					✓				✓	11.5	3033	6.392	
16	18	1688	5	✓			✓						✓	12.4	708	6.783	
17	20	1689	0	✓								✓	✓	13.3	1322	7.005	OPEN VENT
18	14	1690	Max-10	✓ 20						✓✓							
19	17	1691	chl Max	✓ 10						✓✓							
20	19	1692	5	✓						✓✓	✓✓						✓ 398 (3xO ₂)
21																	
22	?																
23	assigned firing order																
24						N ₂	N ₂	N ₂									

Watchkeeper(s): DI TBBottom Depth: 345 mTransmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1846	1146
Bottom	1850	1150
End	1913	1213

Positional Information

Start Lat: 48 ° 02.34 N
Lon: 125 ° 36.81 W

Bottom Lat: 48 ° 07.33 N
Lon: 125 ° 36.83 W

End Lat: 48 ° 02.31 N
Lon: 125 ° 36.85 W

0.222146 N

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹

Std Value: _____ mL · L⁻¹

*Date Run: _____

Analyst: N2

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

TMR

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: A9Event #: 201Ship: TALLYUTC Date (dd mmm yyyy): 13 08 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken				Oxygen Titrations		Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	TM	Flask Serial #	Value mL · L ⁻¹	
1	1	1693	300	✓		✓		✓			
2	2	1694	250	✓		✓		✓			
3	3	1695	200	✓		✓		✓			
4	4	1696	175	✓		✓		✓			
5	5	1697	150	✓		✓		✓			
6	6	1698	125	✓		✓		✓			
7	7	1699	100	✓		✓		✓			
8	8	1700	80	✓		✓		✓			
9	9	1701	50	✓		✓		✓			
10	10	1702	30	✓		✓		✓			
11	11	1703	20	✓		✓		✓			
12	12	1704	10	✓		✓		✓			
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											

Watchkeeper(s):
ER, CS, JMBottom Depth: 350 m

Transmissio Cleaned: Y / N

Time	UTC	Local
Start	1923	1223
Bottom	1932	1232
End	1943	1243

Positional Information

Start
Lat: 48 ° 02.312 N
Lon: 125 ° 36.856 WBottom
Lat: 48 ° 02.294 N
Lon: 125 ° 36.898 WEnd
Lat: 48 ° 02.316 N
Lon: 125 ° 36.889 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: 2010-36 Station: A7 Event #: 204/205/206 Ship: TULLY UTC Date (dd|mmm|yyyy): 13 | 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	TPH ₄	PH	PIC	018	302	T	
1	1705	1201	1.959	B-10	✓ 110	✓ 7.2	✓									
2	1706	1459	1.973	150	✓ 110	7.2		✓								↑ same Z
3	1707	1327	1.990	130	✓ 110	7.2										
4	1708	570	1.979	120	✓ 110	✓ 7.2										1414 7.2 < 1.979
5	1709	3051	2.813	100	✓	7.5							✓			
6	1710	2056	3.258	90	✓	7.6						✓				
7	1711	1326	4.050	70	✓	7.7	✓									
8	1712	3116	4.881	50	✓	8.1										VENT OPEN
9	1713	612	5.170	30	✓	8.3										
10	1714	1335	4.864	20	✓	8.5					✓					VENT OPEN
11	1715	3178	5.539	15	✓	9.8							✓			
12	1716	2000	6.586	10	✓	11.2							✓			
13	1717	3135	7.046	5	✓	12.5		✓								
14	1718	1460	7.050	0	✓	12.7	✓						✓			
15	1719			CM+0	✓ 20				✓							
16	1720			CM	✓ 10				✓							
17	1721			5	✓				✓	✓			✓		429	
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): H.M.

Bottom Depth: 115 m

Transmisso Cleaned: (Y) / N

	UTC	Local
Start	21.48	14.49
Bottom	21.50	14.55
End	22.06	15.06

Positional Information

Start

Lat: 49 ° 09 15 N

Lon: 125 ° 23 35 W

Bottom

Lat: 48 ° 09 16 N

Lon: 125 ° 23 07 W

End

Lat: 48 ° 09 16 N

Lon: 125 ° 23 02 W

0.222146 N

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

TMR

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: A7Event #: 207Ship: TullyUTC Date (dd|mmm|yyyy): 13 | Aug | 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken				Oxygen Titrations		Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	TM	Flask Serial #	Value mL · L ⁻¹	
1	1	1722	90	☒		☒		☒			
2	2	1723	80	☒		☒		☒			
3	3	1724	70	☒		☒		☒			
4	4	1725	60	☒		☒		☒			
5	5	1726	50	☒		☒		☒			
6	6	1727	40	☒	42	☒		☒			
7	7	1728	30	☒		☒		☒			
8	8	1729	25	☒		☒		☒			
9	9	1730	20	☒		☒		☒			
10	10	1731	20	☒		☒		☒			
11	11	1732	15	☒		☒		☒			
12	12	1733	10	☒		☒		☒			
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											

Watchkeeper(s):
ER, CS, JMBottom Depth: 115 m

Transmissio Cleaned: Y / N

Time	UTC	Local
Start	2220	1520
Bottom	2222	1522
End	2228	1528

Positional Information

Start
Lat: 48 ° 09.181 N
Lon: 125 ° 23.979 WBottom
Lat: 48 ° 09.184 N
Lon: 125 ° 23.998 WEnd
Lat: ° N
Lon: ° 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: 2010-36 Station: A5 Event #: 209/210/211 Ship: TULLY UTC Date (dd|mmm|yyyy): 14 | AUG | 2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken										Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	Chl	NH ₄	PH	DIC	O ₁₈	3Y	O ₂	
1	1734	3209	1.488	B-10	✓	116	✓				✓	✓				
2	1735	3184	1.662	100	✓			✓								
3	1736	1317	1.785	90	✓								✓			
4	1737	3191	2.872	70	✓							✓				
5	1738	3166	2.973	50	✓		✓									
6	1739	471	2.980	40	✓						✓					
7	1740	1478	3.179	30	✓											
8	1741	2064	4.459	20	✓											
9	1742	1338	5.198	15	✓											14975.19610.0 c
10	1743	3038	6.858	10	✓								✓			
11	1744	1401		5	✓			✓								31746.8512.1 c
12	1745			0	✓		✓						✓			DIDN'T FIRE
13	1746			CHL 10	✓	20			✓✓							
14	1747			CHL	✓	10			✓✓							
15	1748			5	✓				✓✓	✓✓				✓		448
16	—			0												
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): H.M.

Bottom Depth: 121 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0023	1723
Bottom	0026	1726
End	0043	1743

Positional Information

Start Lat: 48 ° 16.15 N
Lon: 125 ° 10.36 W

Start

Bottom

Bottom Lat: 48 ° 16.13 N
Lon: 125 ° 10.39 W

End

End Lat: 48 ° 16.10 N
Lon: 125 ° 10.43 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

* according to B1 7.61 Niskin 16 was fired at the surface...
no + sampled at all though. No data for Niskin 12.

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: A5 Event #: 212 Ship: Tully UTC Date (dd mmm yyyy): 13 Aug 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	1749	100	✓		✓		✓		
2	2	1750	100	✓		✓		✓		
3	3	1751	90	✓		✓		✓		
4	4	1752	80	✓		✓		✓		
5	5	1753	70	✓		✓		✓		
6	6	1754	60	✓		✓		✓		
7	7	1755	50	✓		✓		✓		
8	8	1756	40	✓		✓		✓		
9	9	1757	30	✓		✓		✓		
10	10	1758	20	✓		✓		✓		
11	11	1759	10	✓		✓		✓		
12	12	1760	10	✓		✓		✓		
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s): ER, CS, JM

Bottom Depth: 120 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0055	1755
Bottom	0101	1801
End	0108	1808

Positional Information
Start
Lat: 48 ° 16.048 N
Lon: 125 ° 10.678 W

Bottom
Lat: 48 ° 16.046 N
Lon: 125 ° 10.679 W

End
Lat: 48 ° 15.975 N
Lon: 125 ° 10.756 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: 2010-36 Station: A3 Event #: 215/216 Ship: TULLY UTC Date (dd|mmm|yyyy): 14 | 8 | 10

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken										Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	Chl	PH ₄	PH _{7.0}	PH _{8.0}	PH _{9.0}	PH _{10.0}	PH _{11.0}	
1	1761	1490	1.497	8-10	☒ 100	☒	☒									6.7
2	1762	1144	1.592	90	☒			☒								6.8
3	1763	3181	1.605	70	☒								☒		☒	6.8
4	1764	1407	2.122	50	☒											7.4 dup: (1321)7.4
5	1765	1481	2.156	40	☒							☒				7.4
6	1766	2084	2.466	30	☒											7.7
7	1767	1476	3.639	20	☒		☒									8.7
8	1768	1365	4.196	15	☒											9.1
9	1769	1180	4.831	10	☒								☒		☒	9.7
10	1770	2086	5.872	5	☒			☒							☒	10.9
11	1771	1387	6.027	0	☒	☒	☒						☒		☒	11.2
12	1772			CM+10	☒ 20				☒							
13	1773			CM	☒ 10				☒							
14	1774			5	☒				☒	☒				☒		
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): HM

Bottom Depth: 111 m

Transmisso Cleaned: ☒ / N

2109

Time	UTC	Local
Start	0305	2005
Bottom	0308	2008
End	0322	2022

Positional Information

Start
Lat: 48 ° 22.88 N
Lon: 124 ° 57.66 W

Bottom
Lat: 48 ° 22.90 N
Lon: 124 ° 57.65 W

End
Lat: 48 ° 22.88 N
Lon: 124 ° 57.74 W

0.222115 N

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: 2010-36 Station: A1 Event #: 220/221 Ship: TULLY UTC Date (dd|mmm|yyyy): 14 | 08 | 2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken										Comments		
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	Chl	-NH ₄	pH	DIC	Alk	O ₂	3Y			
									HPG	PH ₁₀	PH	DIC	Alk	0	10	37	02	
1	1775	860	1.749	8-10	✓ 253	✓ 6.8	✓					✓	✓					
2	1776	861	1.771	200	✓ 200	6.7		✓										
3	1777	862	1.792	175	✓	6.9												
4	1778	863	1.811	150	✓	7.0						✓		✓				
5	1779	864	2.054	125	✓	7.1												
6	1780	865	2.207	100	✓	7.4	✓											
7	1781	866	2.482	10	✓	7.6												
8	1782	867	2.425	80	✓	7.6					✓							
9	1783	868	2.396	70	✓	✓ 7.8												869-2.397
10	1784	870	2.678	50	✓	7.9												
11	1785	871	2.867	30	✓	8.3												redraw O ₂
12	1786	872	3.411	20*	✓	9.0		✓										
13	1787	873	5.113	5	✓	10.3								✓				
14	1788	874	5.324	0	✓	11.3	✓					✓		✓				
15	1789			CM+D	✓ 20				✓									
16	1790			CM	✓ 10				✓									
17	1791			5	✓				✓	✓						✓ 864		
18																		
19																		
20																		
21																		
22																		
23																		
24									TB	DI	DI	TB	TB	WE	CP	DI	CP	

Watchkeeper(s): TB

Bottom Depth: 263 m

Transmisso Cleaned: Y / N

	UTC	Local
Start	0703	0003
Bottom	0709	0009
End	0739	0039

Positional Information

Start Lat: 48 ° 29.21 N
Lon: 124 ° 43.76 W

Bottom Lat: 48 ° 29.19 N
Lon: 124 ° 43.78 W

End Lat: 48 ° 29.17 N
Lon: 124 ° 43.69 W

P. 222115 N

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

NUTS-GREEN RACK

Water Properties Group

Rosette Log

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

Cruise ID: 2010.26 Station: A 9.5Event #: 222Ship: TullyUTC Date (dd mmm yyyy): 14 08 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	1792	B-10	✓	642	5.7		875	0.402	depth ~ 635
2	2	1793	B-20	✓	622	5.8		876	0.409	877 - 0.408
3	3	1794	B-50	✓	592	5.9		878	0.498	
4	4	1795	B-100	✓	542	6.2		879	0.567	
5	5	1796	300	✓		6.8		880	1.198	
6	6	1797	200	✓		7.1		881	2.336	
7	7	1798	100	✓		7.8		882	4.650	
8	8	1799	70	✓		8.5	8.7	883	6.223	884 - 6.222
9	9	1800	50	✓		9.2		885	6.428	
10	10	1801	30	✓		9.9		886	6.602	
11	11	1802	20	✓		11.1		887	6.429	
12	12	1803	5	✓		13.9		888	6.367	
13	13	1804	0	✓		14.0		889	6.376	
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Watchkeeper(s): TBBottom Depth: 642 mTransmissio Cleaned: Y / N

Time	UTC	Local
Start	1240	0540
Bottom	1254	0554
End	1320	0620

Positional Information

Start
Lat: 48° 0.04 N
Lon: 125° 39.96 W

Bottom
Lat: 48° 0.01 N
Lon: 125° 40.00 W

End
Lat: 47° 59.97 N
Lon: 125° 40.03 W

0.222115 N

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

*large decrease in transmissivity
@ 615m by ~ 50%

Water Properties Group

Rosette Log

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

Cruise ID: 2010-36 Station: JF2Event #: 225Ship: TullyUTC Date (dd mmm yyyy): 15 Aug 2010

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken								Oxygen Titrations		Comments		
			Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	pH	DIC	ALK	HPLC	Flask Serial #	Value mL · L ⁻¹				
				✓													
1		1805	B-10	✓	175	6.9									94	1.723	
2		1806	175	✓	150	6.8									1314	1.726	1247-1.725
3		1807	150	✓		6.8		✓							3016	1.722	
4		1808	130	✓		6.9			✓				✓		1300	1.721	
5		1809	120	✓		6.9									1473	1.730	
6		1810	105	✓		7.1			✓						1307	1.828	
7		1811	95	✓		7.6									1318	2.408	
8		1812	70	✓		7.9									745	2.796	
9		1813	50*	✓		8.5									1298	3.534	1392-3.536
10		1814	40	✓		8.9			✓						1395	3.960	Wiley started pH before c
11		1815	30	✓		9.0									1397	3.897	
12		1816	20	✓		9.0									1408	3.814	
13		1817	15	✓		9.1									1421	3.843	
14		1818	10	✓		9.4			✓						1488	3.948	
15		1819	5*	✓		9.7		✓					✓	✓	3033	4.049	
16		1820	0	✓		9.9	✓	✓					✓		708	4.201	dripping
17		1821	chIM+10	✓	50						✓	✓					
18		1822	chIM	✓	40						✓	✓					
19		1823	5	✓							✓	✓		✓	782		
20																	
21																	
22																	
23																	
24						TB	D.I.	TB	WE	CP		TB	1	D.I.	CP		

Watchkeeper(s):
TB D.I.Bottom Depth: 186 mTransmisso Cleaned: Y N

Time	UTC	Local
Start	11:52	04:53
Bottom	11:56	04:56
End	12:11	05:11

Positional Information

Start
Lat: 48 ° 18.02 N
Lon: 124 ° 00.01 WBottom
Lat: 48 ° 18.02 N
Lon: 124 ° 00.02 WEnd
Lat: 48 ° 18.02 N
Lon: 124 ° 00.01 W

0.222115N

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹Std Value: _____ mL · L⁻¹*Date Run: 14 AUG 2010Analyst: NZ

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

Nutrient btls with ★ are for FREEZER.