

Info Same as Previous

Rosette Log

Cruise ID: 2010-07 Station: 08-15 Event #: 054 Ship: LSSC UTC Date (dd/mm/yyyy): 06 | 07 | 2010

Watchkeeper(s):

Bottom Depth: _____ m		
Transmisso Cleaned: Y / N		
Time		
UTC	Local	
Start	Bottom	End
Positional Information		
Lat: <i>(deg)</i>	°	°
N		W
▲		
Lat: _____	°	°
N		W
▲		
Lat: _____	°	°
N		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		

Version: 28 Feb 2008

mc/cs Ship underway - slightly bowsey - bowman downy.

Room temp is 25.0°C
 Flow temp is 13.0°C
 $\Delta \sim 10^{\circ}\text{C}$ difference

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

Water Properties Group

99 Loop N/A Fkdk # 439 = 6.952

On the 10th (10th-0) 10407-40

Rosette Log

Temp @ std: $KIO_3 = 22.8^\circ C$

Time = 22.50

Two type = 0.50030

Blank = 0.00071

$$T_{\text{no } K} = 0.24228$$

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

Cruise ID: 2010-07 Station: CB-17 Event #: 055 Ship: 155L UTC Date (dd|mm|yyyy): 07 | OCT | 2010

Niskin	#
Sample #	
Oxygen Titrations	Serial # Flask Value mL • L ⁻¹
Rosette Operation	Pressure Target Confirmed ✓ Pressure
Samples Taken	Oxy Nut Sal Chl NH ₄ T ₁ T ₂ T ₃
Comments	

Station	Time	Water Level (ft)	Water Temp (°F)	Wind Speed (mph)	Wind Dir	Wave Hgt (ft)	Wave Dir	Current Speed (ft/s)	Current Dir	Notes
1	1142	800	6.536	824	6.538	814	6.578	0.4	0.1	Note: These samples were @ 10m
2	1143	826	6.536					-0.1		
3	1144	827	6.604					0.0		
4	1145	828	6.713					0.0		
5	1146	805	6.865					0.1		OT - load and point (OT steps)
6	1147	820	6.879					0.4		
7	1148	819	6.847	818	6.853			0.5	0.8	819 - bump at end - line OK
8	1149									Misfire
9	1150	822	6.776					1.0		
10	1151	823	6.776					1.2		
11	1152	812	6.743					1.3		
12	1153	813	6.734					1.2		on bump - line OK
13	1154	815	6.650					1.1		
14	1155	807	6.605					0.4		
15	1156	816	6.594					0.0		
16	1157	817	6.169					-0.2		10m?
17	1158	806	6.540					-0.5		
18	1159	808	6.527					-0.4		
19	1160	809	6.705					-0.3		
20	1161	810	6.988					0.0		
21	1162	811	7.519					0.3		
22	1163	803	8.513					1.1		bump @ end - line OK
23	1164	801	9.124	804	9.130			0.7	0.9	
24	1165	802	8.927					0.0		

Transmissometer to be cleaned before each cast, do not use Ammonia products

Version: 28 Feb 2008

Ship not moving (stephens) - vessel why
1500 - 1950, 1950 - 1950

KS diam
MD pickle

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

run daily, if possible

Analyst:

Std Value:

Blank Value: _____ mL, L⁻¹

Oxygen Info For This Cast

En Lon

Lat:

Bo
Lon:

Lat:

St
Lon:

Lat:

Positional Information

End

Bottom

Time

UTC

check to see if
would be a threat to
UTC Local

Transmisso Cleaned:

Bottom Depth: m

Watchkeeper(s):

Cruise ID: 2010-07 Station: PP-7 Event #: 057 Ship: LSSL UTC Date (dd/mm/yyyy): 08 | OCT | 2010

99 Loop N/A Flask # 1474 = 5.777 mL
Temp @ STD • K103 = 22.8°C
Two hr (20°) = 0.50030
Blank = 0.00066
Two N = 0.24224

#	Niskin Sample #	Oxygen Titrations		Rosette Operation		Samples Taken					Comments	
		Flask Value	Serial #	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	chl	NH ₄		
											T ₃	
											T ₂	
											T ₁	

1	1190	454	6.543	455			6.539	456	6.539		0.3	-0.1	-0.1
2	1191	457	6.539								-0.5		
3	1192	458	6.593								-0.5		
4	1193	459	6.708								-0.5		
5	1194	449	6.863								-0.3		
6	1195	448	6.878								0.1		
7	1196	450	6.866								0.2		
8	1197	451	6.827								0.5		
9	1198	452	6.811	453		6.807					0.5	0.7	
10	1199	442	6.780								0.7		
11	1200	435	6.756								0.7		
12	1201	444	6.706								0.5		
13	1202	446	6.681								0.2		bump at end - low OK (stop)
14	1203	436	6.731								-0.4		
15	1204	447	6.686								-0.6		
16	1205	437	6.149								-1.0		
17	1206	443	6.328								-1.1		
18	1207	439	6.595								-1.1		
19	1208	440	6.918	441		6.922					-1.0	-0.9	
20	1209	430	7.193								-0.7		
21	1210	438	7.644								-0.5		
22	1211	431	9.129								-0.4		
23	1212	432	9.146								-0.4		
24	1213	433	8.493								-0.6		

Watchkeeper(s):

Bottom Depth: m
Transmisso Cleaned: Y / N

Time UTC Local
Start
Bottom
End

Positional Information
Lat: ° N
Lon: ° W

Bottom
Lat: ° N
Lon: ° 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

MAC/CS

(0 in station)

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

Cruise ID: 2010-07 Station: CB-DW Event #: 060 Ship: 7557 UTC Date (dd|mm|YYYY): 08 | 08 | 2010

Watchkeeper(s):

Bottom Depth: _____ m		
Transmisso Cleaned: _____ Y / N		
Time UTC Local		
Start		
Bottom		
End		

Lat: _____ °	°	N
▲		
Lat: _____ °	°	W

Lat: _____ °	°	N
▲		
Lat: _____ °	°	W

Lon: _____ °	°	W
▲		
Lon: _____ °	°	N

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

Oxygen Info For This Cast

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

Version: 28 Feb 2008

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

Cruise ID: 2010-07 Station: 08-18 Event #: 061 Ship: LSSL UTC Date (dd/mm/yyyy): 09 | OCT | 2010

Watchkeeper(s):	Comments	NH ₄		T ₁	T ₂	T ₃	Samples Taken		Rosette Operation	Oxy	Nut	Sal	Chl	a	Pressure	Target	Pressure	Serial #	Oxygen Titrations	#	Sample

Bottom Depth:	m	Transmisso Cleaned:	Y / N
Time	UTC	Local	
Start		Bottom	End

Positional Information

Lat:	°	N
Lon:	°	W

Start

Lat:	°	N
Lon:	°	W

Bottom

Lat:	°	N
Lon:	°	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

1	1286	400	6.712	801	6.710	802	6.731	-0.4	-0.3	-0.2	3-high	
2	1287	803	6.861					-0.4				
3	1288	804	6.888					-0.2				
4	1289	805	6.907					0.0				
5	1290	806	6.857					0.3				
6	1291	807	6.787					0.5				
7	1292	808	6.834					0.6				
8	1293	809	6.770					0.9				
9	1294	810	6.767					0.8				
10	1295	811	6.737					0.9				
11	1296	812	6.717					0.5				
12	1297	813	6.639					0.8				
13	1298	814	6.549					0.2				
14	1299	815	6.335					-0.4				
15	1300	816	6.227					-1.1				
16	1301	817	6.523	819	6.524			-0.8	-0.7			
17	1302	818	6.541					-1.4				
18	1303	820	6.696					-0.6				
19	1304	821	6.998	822	6.997			-0.3	-0.2			
20	1305	823	7.476					0.0				
21	1306	824	8.538					0.1				
22	1307	825	8.558					0.6				
23	1308	826	9.081					-0.3				
24	1309	827	8.897					-0.3				

Transmissometer to be cleaned before each cast, do not use Ammonia products

Version: 28 Feb 2008

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

KS draw
KY pull

Temp @ std → K10₃ = 22.4°C
Thio 4 hr = 0.50036 Thio N = 0.24219
Blank = 0.00062

Run at end 0.9°C
99 Loop 118 Flask 499 = 9.223 mL/L
99 Loop 119 Flask 1474 = 9.199 mL/L

99 Loop NA Truck # 439 = 5.666 m/l

1410 - 22.50

Temp (a) std: $KIO_3 = 22.902$

$$T_{\text{ice}} = 0.50064 \text{ (20°C)}$$
$$T_{h_0} N = 0.24208$$

Event #: 062 Ship: 7557

Ship:

UTC Date (dd/mm)

UTC Date (dd|mm|yyyy): 10 | OCT | 2010

Watchkeeper(s):

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

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

99 Loop 121 Flask 439 = 9.239 mL/L
-0.1°C

Water Properties Group

Rosette Log

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

Info some as per rev.

Cruise ID: 2010-07 Station: CB-6 Event #: 063 Ship: L55L UTC Date (dd|mm|yyyy): 10 | OCT | 2010

#	Niskin	#	Sample	Oxygen Titrations		Rosette Operation		Samples Taken					Comments	
				Flask	Serial #	Value	Pressure	Target	Confirmed	Oxy	Nut	Sal		Chl

1	1334	854	6.525	855		6.526	856	6.524				0.3	0.0	-0.1		
2	1335	857	6.530									-0.5				
3	1336	858	6.598									-0.5				
4	1337	859	6.706									-0.4				
5	1338	849	6.864									-0.3				
6	1339	848	6.882									0.0				
7	1340	850	6.861									0.1				
8	1341	851	6.803									0.5				
9	1342	852	6.730									0.5				
10	1343	853	6.756	842		6.753					0.6	0.7				
11	1344	835	6.666								0.7					
12	1345	844	6.530								0.5					
13	1346	846	6.466								0.0					
14	1347	836	6.221								-0.9					
15	1348	847	6.217								-0.7					
16	1349	837	6.438								-1.0					
17	1350	843	6.436	839		6.437					-1.0	-0.9				
18	1351	840	6.801								-0.8					
19	1352	841	7.095								-0.7					
20	1353	830	7.509								-0.3					
21	1354	838	8.493								0.2					
22	1355	831	8.914								0.3					
23	1356	832	8.904								-0.3					
24	1357	833	8.877								-1.0					

Version: 28 Feb 2008

Transmissometer to be cleaned before each cast, do not use Ammonia products

http://www.pac.dfo-mpo.gc.ca/sci/osap/projects/waterproperties/run daily, if possible

Watchkeeper(s):

Bottom Depth: m
Transmisso Cleaned: Y / N

Time UTC Local
Start
Bottom
End

Positional Information
Lat: ° N
Lon: ° W

Bottom
Lat: ° N
Lon: ° 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

99 Loop 127 Flask 439 = 9.036 mL/L
* Water Seal incorporated overnight (-0.8°C)
Temp @ stand $\Rightarrow$ K102 = 22.6°C
Temp = 22.8°C
Temp 4hr (20°C) = 0.41284
Blank = 0.00078
Temp N = 0.24207

Water Properties Group

Rosette Log

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

Cruise ID: 2010-07 Station: CB-21 Event #: 066 Ship: LSSL UTC Date (dd|mm|yyyy): 11 | OCT | 2010

Niskin #	Sample #	Oxygen Titrations Flask Value Serial #	Rosette Operation Target Pressure Confirmed Pressure	Samples Taken Oxy Nut Sal Chl NH ₄	T ₁	T ₂	T ₃	Comments
								Shut run!

Watchkeeper(s):

Bottom Depth: m

Transmisso Cleaned: Y / N

Time UTC Local

Start	Bottom	End

Positional Information

Lat:	Lon:

Bottom

Lat:	Lon:

End

Lat:	Lon:

Oxygen Info For This Cast

Blank Value:	Std Value:	Date Run:	Analyst:
ml · L ⁻¹	ml · L ⁻¹		

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

1	1406	854	6.525	855	6.524	856	6.520		-0.4	-0.3	-0.3								
2	1407	857	6.521						-0.5										
3	1408	858	6.590						-0.5										
4	1409	859	6.699						-0.4										
5	1410	842	6.854						-0.2										
6	1411	835	6.861						0.2										
7	1412	844	6.830						0.4										
8	1413	846	6.794	836	6.792				0.7	0.8									
9	1414	847	6.742						1.0										
10	1415	834	6.756						0.9										
11	1416	843	6.725						0.7										
12	1417	839	6.670						0.5										
13	1418	851	6.640						0.0										
14	1419	852	6.674						-0.3										
15	1420	853	6.300						-0.5										
16	1421	849	6.352						-0.5										
17	1422	848	6.475						-0.5										
18	1423	850	6.720	841	6.725				-0.5	-0.5									
19	1424	840	7.101						-0.5										
20	1425	1452	7.466						0.0										
21	1426	838	8.267						0.3										bump @ end pt - low OK
22	1427	831	8.888						0.5										
23	1428	832	9.028						-0.5										
24	1429	833	8.913						-0.4										

Transmissometer to be cleaned before each cast, do not use Ammonia products

Version: 28 Feb 2008

http://www.pac.dfo-mpo.gc.ca/sci/osaap/projects/waterproperties/

JE draw
MB piece

out of order
in case
out of order
in case

Cruise ID: 2010-07 Station: CB-40 Event #: 067 Ship: LSSL UTC Date (dd|mm|yyyy): 12 | OCT | 2010

99 Loop N/A Flask 439 = 9.722 mL/L (system off)

Temp @ std: K103 = 22.9°C
Temp = 22.6°C

Thiohite (2007) = 0.41295
Blank = 0.00061

Tube N = 0.24189

Niskin #	Sample #	Oxygen Titrations Flask Value mL · L ⁻¹	Rosette Operation Target Confirmed Pressure	Pressure	Pressure	Samples Taken			NH ₄	T ₁	T ₂	T ₃	Comments
1	1430	800	6.522	801	6.516	802	6.517			-0.3	-0.3	-0.3	Great run!

1	1430	800	6.522	801	6.516	802	6.517			-0.3	-0.3	-0.3	
2	1431	803	6.567							0.0			
3	1432	804	6.693							0.0			
4	1433	805	6.846							0.0			
5	1434	806	6.866							0.4			
6	1435	807	6.826							0.5			
7	1436	808	6.773	809	6.777					0.7	1.0		
8	1437	810	6.777							1.3			
9	1438	811	6.745							1.2			
10	1439	812	6.719							1.2			
11	1440	813	6.690							1.2			
12	1441	814	6.635							1.2			
13	1442	815	6.602	816*	6.607					1.0	1.1		816* - wrong position no in computer
14	1443	817	6.661							1.2			
15	1444	818	6.580							0.5			
16	1445	819	6.167							0.0			
17	1446	820	6.638							0.1			
18	1447	821	6.117							-0.6			
19	1448	822	6.598							0.1			
20	1449	823	7.053							-1.0			
21	1450	824	7.536							1.0			
22	1451	825	8.605							1.2			
23	1452	826	9.074							-0.7			
24	1453	827	8.904							0.5			

Flasks
out of
order
in case

Version: 28 Feb 2008

Transmissometer to be cleaned before each cast, do not use Ammonia products

http://www.pac.dfo-mpo.gc.ca/sci/osaap/projects/waterproperties/run daily, if possible

Watchkeeper(s):

Bottom Depth: m
Transmisso Cleaned: Y / N

Time UTC Local
Start
Bottom
End

Positional Information
Lat: ° N
Lon: ° W
Lat: (816 should be 13 not 16) 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

99 Loop NIN Flask # 439 = 5.552 mL/L

Water Properties Group

Rosette Log

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

Info sent as previous.

Cruise ID: 4010-07	Station: CB-50	Event #: 068	Ship: LSSL	UTC Date (dd mm yyyy): 18 Oct 2010
--------------------	----------------	--------------	------------	--

Niskin #	Sample #
Oxygen Titrations Flask Value Serial # mL · L ⁻¹	Rosette Operation Confirmed Pressure ✓ Target Pressure
Samples Taken Oxy Nut Sal Chl NH ₄	1 2 3
Comments	Great run!

1	1454	1844	6.504	1291	6.497	1847	6.498							0.7	0.4	0.2	Deep values lower than expected
2	1455	1364	6.506											0.0			
3	1456	1276	6.647											-0.1			
4	1457	1286	6.839											-0.1			
5	1458	705	6.864											0.1			
6	1459	1343	6.829											0.3			
7	1460	1321	6.789											0.5			MisKin did not close properly
8	1461	1366	6.772	1361			6.772							0.7	0.9		
9	1462	1484	6.742											0.6			
10	1463	1422	6.739											0.6			
11	1464	1299	6.677											0.8			
12	1465	1412	6.599											0.6			
13	1466	1445	6.589											0.5			
14	1467	1292	6.511											0.1			
15	1468	1363	6.386											-0.2			
16	1469	1482	6.015											-0.7			Unipped flask - submerged
17	1470	1216	6.119											-0.7			
18	1471	1228	6.080											-0.7			
19	1472	1204	6.620											-0.7			
20	1473	1443	7.200											-0.4			
21	1474	1223	8.357											-0.2			
22	1475	1246	9.308											0.1			
23	1476	1499	9.083											-0.1			
24	1477	1225	8.870	1309			8.866							-0.6	±0		

Version: 28 Feb 2008
Transmissometer to be cleaned before each cast, do not use Ammonia products

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

run daily, if possible

Analyst:

Std Value:

Std Value: mL/L⁻¹

Blank Value:

Blank Value: $\text{mL} \cdot \text{L}^{-1}$

Oxygen Info For This Cast

507 | 5

0

Lat:

0

Bo :u07

0

Lat:

0

Stacy
Lyon

0

Lat:	
70°N	180°E
60°N	180°E
50°N	180°E
40°N	180°E
30°N	180°E
20°N	180°E
10°N	180°E
Equator	180°E
10°S	180°E
20°S	180°E
30°S	180°E
40°S	180°E
50°S	180°E
60°S	180°E
70°S	180°E

0

Positional Information

End

Bottom

Start

Time	UTC	Local
------	-----	-------

Transmisso Cle

Bottom Depth: m

Watchkeeper(s):

Comments

Water Properties Group

Rosette Log

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

99 loop N/A Flask 1346 = 5.737 mL (system off)

Temp @ std: $KH_3 = 22.7^{\circ}C$
Thio = 22.4^{\circ}C

from H₂O (20^{\circ}C) = 0.41278
blank = 0.00064

Thio N = 0.24201

Cruise ID: 2010-07 Station: CB-51 Event #: 069 Ship: TSS-L UTC Date (dd|mm|YYYY): 13 | OCT | 2010

Amalgam

Niskin #	Sample #	Oxygen Titrations Flask Value Serial #	Rosette Operation Target Pressure Confirmed Pressure	Samples Taken Oxy Nut Sal	Chl NH ₄	T ₁	T ₂	T ₃	Comments
									Good run!

1	1478	800	6.548	801	6.548	829	6.549	-0.1	-0.3	-0.4	3-redraw
2	1479	803	6.615					-0.8			
3	1480	804	6.815					-0.8			
4	1481	805	6.860					-0.7			
5	1482	806	6.859					-0.5			
6	1483	807	6.832					-0.4			
7	1484	808	6.749					-0.3			
8	1485	809	6.735					0.0			
9	1486	810	6.701					-0.3			
10	1487	811	6.604					0.1			
11	1488										Niskin misfire
12	1489	813	6.188					-0.3			
13	1490	814	6.072					-0.6			
14	1491	815	6.039	816	6.040			-0.8	-0.7		
15	1492	817	6.062					-1.1			
16	1493	818	5.971					-1.1			
17	1494	819	5.986					-1.1			bump & nudgt - line OK
18	1495	820	6.024					-1.0			bump & nudgt - line OK
19	1496	821	6.572	822	6.589			-1.1	-1.0		
20	1497	823	7.331					-1.1			
21	1498	828	8.569					-0.9			
22	1499	825	9.311					-1.0			
23	1500	826	9.245					-0.8			
24	1501										Niskin misfire

Version: 28 Feb 2008

Transmissometer to be cleaned before each cast, do not use Ammonia products

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

Jan - draw
Milk - plastic
First cast in new Nal Niskin

Watchkeeper(s):

Bottom Depth: m
Transmisso Cleaned: Y / N

Time UTC Local
Start
Bottom
End

Positional Information
Lat: ° N
Lon: ° 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

99 Loop N/A Flask # 1346 = 5.694 mL (system off)

Event #: 070

Ship: 7557

(if some previous)

Watchkeeper(s):

Time	UTC	Local
Start		
Bottom		
End		

Lat:	o
Lon:	W

▲

Lat:	o
Lon:	W

Lat:	°
Lon:	°

W

Trid 2nd OT → short curve

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

Version: 28 Feb 2008

draw me
good MD/

*RAN OUT OF YELLOW OXY ANALYSIS SHEETS (LAST CAST!)

*99 Loop 132 Flask 1340 = 8.867 mL/L

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 71 LAST CAST! Station CB-53 CTD File 201007-0071
UTC Date (ddmmYYYY) 13 Oct 2010 UTC Time 1918
Lon (W) 128 32.303 Lat (N) 73 23.579
Ice Coverage 10/10 Weather/Sea State -14.1, 30 knt
In Air pressure (before/after) -1, 0.2
Sound Speed used by Knudsen 1445
Water Depth(from surface) 461 m CTD Operator SZ

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Niskin #	Oxygen	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FWALK	NUT	Salt	O18	Ba	NH4	Cs-137	I-129	Niskin #	Comments
1526	Bot	395	✓ 1	00	6.779/6.778/6.779	1294, 7/1291, 4/1347, 3	1	xxx				x		xx	x		xx					1344 - stopper chain + lost gun off
1527	Tmax	350	✓ 2	00	6.476	1364, 2	2	x				x		xx	x		xx					
1528	34.78	320	✓ 3	00	6.324	1276, 1	3	x				x		xx	xx		xx					
1529	34.76	306	✓ 4	00	6.235	1286, 0.0	4	x				x		xx	x	xx	xx					
1530	34.7	270	✓ 5	00	6.001	705, 0.0	5	x				x		xx	x	x	x					
1531	34.6	237	✓ 6	00	6.190	1343, -1	6	x				x		xxxx	x	x	x					
1532	34.5	220	✓ 7	00	5.957/5.955	1381 -13/1366 -1.2	7	xx				x		xx	x	x	x					*7 swapped out w/ #24 before cast
1533	34.4	206	✓ 8	01			8	x				x		xx	x	x	x					Missing Caught in cables
1534	34.1	175	✓ 9	00	5.882	1484 -13	9	x				x		xx	x	x	x					
1535	33.6	151	✓ 10	00	5.929	1422 -17	10	x				x		xx	x	x	x					
1536	33.1	129	✓ 11	00	5.926	1299 -19	11	x				x		xx	xx	x	x					
1537	32.9	120	✓ 12	00	5.984/5.972	1418 -19/1445 -1.8	12	xx				x		xx	x	x	x					1 - stopper secured loose → under seal pressure?
1538	32.6	106	✓ 13	00	6.094	1293 -1.8	13	x				x		xxxx	x	x	x					
1539	32.3	92	✓ 14	00	6.638	1363 -19	14	x				x		xx	x	x	x					
1540	32.3	70	✓ 15	00	7.935	1482 -17	15	x				x		xx	x	x	x					
1541	CHLmax	50	✓ 16	00	8.870	1216 -15	16	x				xx		xx	x	x	x					
1542	30		✓ 17	00	9.001	1329 0.0	17	x				xx		xx	x	x	xx					
1543	15		✓ 18	00	8.739	1204 -19	18	x				xx		xx	x	x	x					
1544	5		✓ 19	00	8.736	1443 -17	19	x				x		xxxx	x	x	x					
24							24															

Bottle Integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

mc/cs

End of 2010-07