

201407b

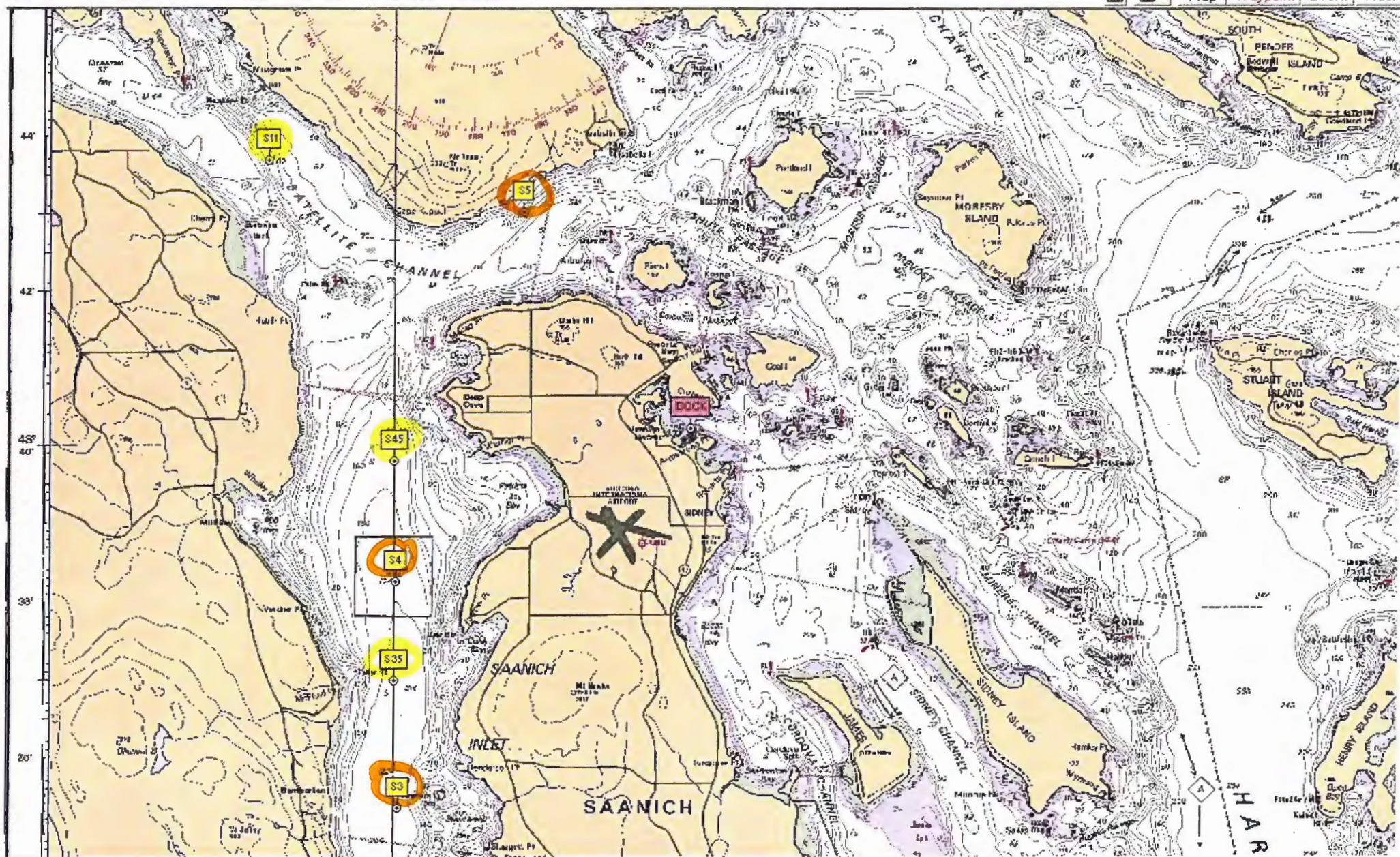
OCEAN SCIENCES STRICKLAND CTD LOG

DATE (dd-mm)	local TIME (UTC)	LAT.	LONG.	STN NAME	BOTTOM DEPTH (m)	CAST DEPTH (m)	CTD File Name
30 Jul	10:00	48 35.570	123 30.001	S3	227	215	20140730-S3
	12:36	48° 36.288	123° 30.084	S4	194	190	20140730-S4
	14:54	48 42.950	123 27.608	S5	121	110	20140730-S5
31 Jul	9:35	48° 36.830	123° 30.000	S3.5	221	210	20140730-S35
	12:00	48 39.337	123 29.968	S4.5	175	170	20140730-S45
	14:15	48 44.007	123 32.878	S11	140	125	20140730-S11

Load Save Wpt Ext 12 TRACK 300 300 SHOW SHOW SHOW 25 25 Drag Info Index Name

2014076
July 30
July 31

Map **Waypoint** Event Track



OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: TEAM B

Date: 30th July, 2014

Consecutive Stn #: 1

Station Name: S3

Notes: (temperature, wind, barometer, weather, sea-state, etc)
 sea-state: calm SST 17.6°C
 30.6 in Hg 22°C AIR
 NO clouds, 20 n.miles visibility, NO wind

EVENT NUMBER	EVENT TYPE	TIME	LAT.	LONG.	BOTTOM DEPTH (m)	CAST DEPTH (m)	NOTES (e.g. CTD file names, bottle depths, flow meter readings, etc)
1	CTD	10:00	48°N 35.570'	123°W 30.001'	227	215	CTD file: 20140730-S3
2	NISK 1	10:34	48°N 35.544'	123°W 30.010'	227	192	DEPTHS: 0 5 10 30 50 70 90 110 130 135 140 145 150 190 (192)
3	Nisk 2	11:24	48° 35.536'	123° 29.989'	226	92	DEPTHS: 0 5 10 30 50 70 90 bottom bottle to 92 m
4	Zoop	12:08	48° 35.539	123° 30.011	226	0-100m	Flab meter start: 33 138 end: 33 605 Net SCOR 250mm

OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: CURTIS CONRAD, EMILY
CURTIS M, DAVE

Date: 30 JULY-14

Consecutive Stn #: 2

Station Name: S4

Notes: (temperature, wind, barometer, weather, sea-state, etc)

CLEAR SKIES, RATHER SUNNY, SHIP WAKE ROLLERS DURING
DOWNCAST, UP >1m/s. 7min FORCAST

EVENT NUMBER	EVENT TYPE	LOCAL TIME	LAT.	LONG.	BOTTOM DEPTH (m)	CAST DEPTH (m)	NOTES (e.g. CTD file names, bottle depths, flow meter readings, etc)
5	CTD	12:36 pm	48° 38.203'	123° 30.014'	199	190	20140730 - S4.hex
6	Bottles	1:04 pm	48° 38.294'	123° 30.049'	199	181	110 135 150. 155. 160. 165. 181
7	Net	1:27 pm	48° 38.175'	123° 30.141'	198	100	1m/sec up SCOR 250µm net FLOW METER @ 33504 START FLOW METER @ 34085 END
8	Bottles	1:56	48° 38.336'	123° 30.612'	198	80	80 60 40 20 10 5 0 " " " " " " " "

OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: Graham/Conrad

Date: July 30 2014

Consecutive Stn #: 3

Station Name: S5

Notes: (temperature, wind, barometer, weather, sea-state, etc)
 Barometer 30.12 mmHg clear sky
 Temperature: 25°C Visibility 20 KMiles
 Surface water temp. 15.1°C lt winds, calm seas

EVENT NUMBER	EVENT TYPE	TIME	LAT.	LONG.	BOTTOM DEPTH (m)	CAST DEPTH (m)	NOTES (e.g. CTD file names, bottle depths, flow meter readings, etc)
9	CTD	14:55	48°42.950	123°27.608	121	110	File name 201430-S5 20140730-S5.hex
10	Miskin	15:05	48°42.969	123°27.580	115	100	Depths: 0, 10, 30, 50, 70, 100
11	Net-	15:33	48°42.965	123°27.572	119	100	Flow ^{start:} 34084.4 Flow end: 34629

OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: Wenbo Zhang

Date: 31st July

Consecutive Stn #: 4

Station Name: S3.5

Notes: (temperature, wind, barometer, weather, sea-state, etc)

Sunny, 20°C air, 30.10 inches of mercury,
16.3°C Surface, Calm, 20km - 0 cloud,

EVENT NUMBER	EVENT TYPE	TIME	LAT.	LONG.	BOTTOM DEPTH (m)	CAST DEPTH (m)	NOTES (e.g. CTD file names, bottle depths, flow meter readings, etc)
12	CTD	9:35	N. 48°36.830'	W 123°30.000'	221	210	2014-0731_S35
13	Nisk	10:05	N. 48°36.825'	W 123°29.988'	221	190	120, 130, 140, 145, 150, 170, 190
14	Nisk	11:02	N 48°36.801'	W 123°30.039'	221	100	0, 10, 20, 40, 60, 80, 100 Bottle 6 is not sealing properly.
15	Zoop	11:18	N 48°36.821'	W 123°29.992'	221	100	34620 → 35040 Initial Final

OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: Enka Berndt

Date: Jul 31st 2014

Consecutive Stn #: 5

Station Name: S4.5

Notes: (temperature, wind, barometer, weather, sea-state, etc) Barometer = 30.04 inches of mercury
 Wind from East @ 4-5 knots Cloud cover = 0%
 Visibility = 20m Surface water = 17.6°C Sea condition rippled
 air temp = 26°C

EVENT NUMBER	EVENT TYPE	TIME	LAT.	LONG.	BOTTOM DEPTH (m)	CAST DEPTH (m)	NOTES (e.g. CTD file names, bottle depths, flow meter readings, etc)
16	CTD	12:00pm	N 48°39.337	W 123°29.968	175	170	20140731-S45
17	Niskin	12:30pm	"	"	175		11/0 13/0 14/5 15/5 16/0 16/5 17/0
18	Niskin	1:05pm	N 48°39.256	W 123°30.117	175		0/0 1/0 2/5 4/0 7/0 9/0
19	Zoop tow	1:25pm	N 48°39.256	W 123°30.117	175	100m	35040 = flowmeter before 35530 = flowmeter after

OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: Enka Berndt

Date: Jul 31 2014

Consecutive Stn #: 6

Station Name: S11

Notes: (temperature, wind, barometer, weather, sea-state, etc)
 barometer = 30.2 inches of Hg Sea is rippled
 air temp = 23°C Wind from East @ 5 knots
 sea surface = 15.8°C Visibility = 20 Nm cloud cover = 20%

EVENT NUMBER	EVENT TYPE	TIME	LAT.	LONG.	BOTTOM DEPTH (m)	CAST DEPTH (m)	NOTES (e.g. CTD file names, bottle depths, flow meter readings, etc)
20	CTD	2:15pm	N48°44.007	W123°32.878	140	125	20140730-S11
21	NISKIN	2:25pm	"	"	144	max 90	Niskin 6 was not sealed properly ↑ 1/0 3/0 5/0 7/0 9/0 Niskin 2 was not sealed properly
22	ZOOP tow	2:44pm	"	"	144	100	flow meter before = 35530 flow meter after = 35960

Water Chemistry Sampling

Cruise: OSM JULY 2014

201407b

Station Name: S3Date: 30/7/2014Time Sampled: 10:34Cast #: 1 Event #: 2Sampler Names: Curtis Martin, Curtis Conrad, Erin Raftery

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8									
7	110	080C ✓ 081C ✓		A42 ✓	✓	✓	✓	✓	✓
6	130			A89 ✓	✓	✓	✓	✓	✓
5	135	078C ✓ 079C ✓		A42 ✓ A49 ✓	✓	✓	✓	✓	✓
4	140	076C ✓ 077C ✓		A107 ✓	✓	✓	✓	✓	✓
3	145	073C ✓ 074C ✓		A-01 ✓	✓	✓	✓	✓	✓
2	150m			A132 ✓	✓	✓	✓	✓	✓
1	180m Bottom			A105 ✓	✓	✓	✓	✓	✓

NOTES: 192

Niskin 3 - air leak at top

O₂ #74 - ~~name~~ bubble forming.NH4 Spiked with Working Reagent: yes no Time Spiked? 16:05
 NH4 Stds Vial# 0uM = A-072 ^{3.003uM} 5uM = A-16 5.003uM 10uM = A-51 10.004uM 15uM = A-109 15.006uM

~~First cast~~
Second cast

Water Chemistry Sampling

Cruise: OSM JULY 2014

201407b

Station Name: S3

Date: 30/7/2014

Time Sampled: 11:24

Cast #: 2 Event #: 3

Sampler Names: Curtis Martin, Curtis Conrad, Erin Raftery.

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8									
7	0	091C ✓ 092C ✓	C-06 ✓	A112 ✓	✓	✓	✓		
6	5		C-05 ✓	A110 ✓	✓	✓			
5	10	089C ✓ 090C ✓	C-04 ✓	A111 ✓	✓	✓	✓		
4	30	087C ✓ 088C ✓	C-03 ✓	A113 ✓	✓	✓			
3	50		C-02 ✓	A08 ✓	✓	✓	✓	✓	✓
2	70	084C ✓ 085C ✓	C-01 ✓	A40 ✓	✓	✓	✓	✓	✓
1	90 91-482	082C ✓ 083C ✓		A52 ✓	✓	✓		✓	✓

NOTES:

Niskin 2 - top no sealed (significant leak)
Niskin 1 - O₂ sampled after nutrients

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Stds Vial# 0uM = 2.5uM = 5uM = 10uM = 15uM =

Water Chemistry Sampling

Cruise: OSM JULY 2014

201407b

Station Name: S4Date: 30 JULY 2014Time Sampled: 1:43 PMCast #: 1 Event #: 6Sampler Names: Catherine, Aysia, Graham, Curtis Curkan

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s		DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8										
7	110	—	—	—	A-61 ✓	✓	✓	✓	✓	✓
6	135	96C ✓	95C ✓	—	A-92 ✓	✓	✓	✓	✓	✓
5	150	93C ✓	117C ✓	—	A-46 ✓	✓	✓	✓	✓	✓
4	155	118C ✓	119C ✓	—	A-88 ✓	✓	✓	✓	✓	✓
3	160	120C ✓	113C ✓	—	A-90 ✓	✓	✓	✓	✓	✓
2	165	—	—	—	A-77 ✓	✓	✓	✓	✓	✓
1	180	—	—	—	A-137 ✓	✓	✓	—	✓	✓

NOTES:

* Bottle #3 - LEAKING!

* Bottle #2 - TOP NOT SEALED

NH4 Spiked with Working Reagent: yes no Time Spiked? 16:05NH4 Stds Vial# 0uM = A-45 ^{3.0012uM} 2.5uM = A-47 5uM = A-74 10uM = A-85 15uM = A-94

5.003uM

10.004uM

15.006uM

Water Chemistry Sampling

Cruise: OSM JULY 2014

201407b

Station Name: S4Date: 30th JULY 2014Time Sampled: 2:30 PMCast #: 2 Event #: 7Sampler Names: Catherine, Pysia, Graham, Curtis Curkan

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8									
7	0	97C 98C	C-18	A-21	✓	✓	✓	—	—
6	5	—	C-17	A-70	✓	✓	✓	—	—
5	10	99C 100C	C-16	A-95	✓	✓	✓	—	—
4	20	101C 102C	C-15	A-50	✓	✓	✓	—	—
3	40	103C 104C	—	A-20	✓	✓	✓	✓	✓
2	60	—	C-14	A-71	✓	✓	✓	✓	✓
1	80	105C 106C	C-13	A-55	✓	✓	—	✓	✓

NOTES:

*BOTTLE 2 - LEAKING!

*BOTTLE 3 - LEAKING!

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Stds Vial# 0uM = 2.5uM = 5uM = 10uM = 15uM =

Water Chemistry Sampling

Cruise: OSM JULY 2014

201407b

Station Name: S5Date: July 30/14Time Sampled: 15:26Cast #: 1 Event #: 10Sampler Names: Catherine, Curtis Curkan, Aysia, Graham
(The Bottom Feeders)

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	nitrate NO3	nitrite NO2	PO4	Mn (✓ when acid spiked)
8								
7								
6	0	116-C/115-C ✓	C12 ✓	A04 ✓	✓	✓	✓	
5	10	—	—	A05 ✓	✓	✓	✓	
4	30	114-C/112-C ✓	C11 ✓	A48 ✓	✓	✓	✓	
3	50	—	—	A53 ✓	✓	✓	✓	
2	70	108-C/107-C ✓	—	A69 ✓	✓	✓	✓	
1	100	—	—	A98 ✓	✓	✓	✓	

NOTES:

NH4 Spiked with Working Reagent: yes no Time Spiked? 16:05

NH4 Stds Vial# 0uM = 2.5uM = 5uM = 10uM = 15uM =

→ use Standards from S4.

Water Chemistry Sampling

Cruise: OSM JULY 2014

201407b

Station Name: 53.5Date: July 31st 2014Time Sampled: 10:45Cast #: 1 Event #: 13Sampler Names: Nick, Erika, Robert, Joss

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8								
7	120	049C ✓ 055C ✓	—	A41 ✓	✓	✓	✓	✓
6	130	068C ✓ 072C ✓	—	A136 ✓	✓	✓	✓	✓
5	140	060C ✓ 064C ✓	—	A57 ✓	✓	✓	✓	✓
4	145	080C ✓ 056C ✓	—	A91 ✓	✓	✓	✓	✓
3	150	—	—	A03 ✓	✓	✓	✓	✓
2	170	—	—	A12 ✓	✓	✓	✓	✓
1	190	—	—	A82 ✓	✓	✓	✓	✓

NOTES:

45 mL sampled ...
so added 10 mL WR and
overflowed bottle.

NH4 Spiked with Working Reagent: yes no Time Spiked? 5:17pm

NH4 Stds Vial# 0uM = 2.5uM = 5uM = 10uM = 15uM =

Water Chemistry Sampling

Cruise: OSM JULY 2014

201407b

Station Name: 53.5Date: July 31st 2014Time Sampled: 11:30Cast #: 2 Event #: 1214Sampler Names: Nick, Erika, Robert, Joss

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
<u>87</u>	<u>0</u>	<u>066C</u> ✓ <u>070C</u> ✓	<u>C27</u> ✓	<u>A66</u> ✓	✓	✓	✓	✓	
<u>76</u>	<u>10</u>	<u>058C</u> ✓ <u>062C</u> ✓	<u>C10</u> ✓	<u>A59</u> ✓	✓	✓	✓	—	
<u>65</u>	<u>20</u>	—	—	<u>A64</u> ✓	✓	✓	—	—	
<u>54</u>	<u>30</u>	<u>048C</u> ✓ <u>065C</u> ✓	<u>C09</u> ✓	<u>A133</u>	✓	✓	✓	✓	
<u>43</u>	<u>40</u>	—	—	<u>A35</u> ✓	✓	✓	—	—	
<u>32</u>	<u>80</u>	<u>067C</u> ✓ <u>071C</u> ✓	<u>C08</u> ✓	<u>A78</u> ✓	✓	✓	✓	—	
<u>21</u>	<u>100</u>	<u>059C</u> ✓ <u>068C</u> ✓	<u>C07</u> ✓	<u>A87</u> ✓	✓	✓	✓	✓	
<u>1</u>	<u>120</u>	<u>049C</u> <u>055C</u>	—	<u>A44</u>					

NOTES: C08 - minimal carbon rinseNH4 Spiked with Working Reagent: yes no Time Spiked? 5:17pm

NH4 Stds Vial# 0uM = 2.5uM = 5uM = 10uM = 15uM =

Water Chemistry Sampling

Cruise: OSM JULY 2014

201407b

Station Name: S4.5Date: July 31, 2014Time Sampled: 12:30pmCast #: 1 Event #: 17Sampler Names: Liam, Alexa, Lincoln, Wenbo

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8									
7	✓ 110			A135✓	✓	✓	✓	✓	✓
6	3 130	031C✓ 032C✓		A34✓	✓	✓	✓	✓	✓
5	✓ 145	033C✓ 035C✓		A103✓	✓	✓	✓	✓	✓
4	✓ 155	036C✓ 037C✓		A75✓	✓	✓	✓	✓	✓
3	✓ 160	038C✓ 039C✓		A96✓	✓	✓	✓	✓	✓
2	165	029C✓ 030C✓		A100✓	✓	✓	✓	✓	✓
1	✓ 170			A27✓	✓	✓		✓	✓

NOTES:

NH4 Spiked with Working Reagent: yes no Time Spiked? 1530NH4 Stds Vial# 0uM = A-73 ³ 2.5uM = A93 5uM = A-22 10uM = A-33 15uM = A-68

Water Chemistry Sampling

Cruise: OSM JULY 2014

201407b

Station Name: 545Date: July 31, 2014Time Sampled: 13:30Cast #: 2 Event #: 19Sampler Names: Glem, Alexa, Lincoln, Wen Bo

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8	/	/	/	/	/	/	/	/	/
7	0	051C✓ 052C✓	C-35✓	A-60✓	✓	✓	✓	✓	✓
6	5	053C✓ 057C✓	C-34✓	A-67✓	✓	✓	✓	/	/
5	10	/	/	A-134✓	✓	✓	✓	/	/
4	25	025C✓ 026C✓	C-53✓	A-115✓	✓	✓	✓	✓	✓
3	40	/	C-32✓	A-02✓	✓	✓	✓	/	/
2	70	/	C-19✓	A-140✓	✓	✓	/	/	/
1	90	027C✓ 028C✓	/	A-76✓	✓	✓	✓	✓	✓

NOTES:

* Niskin 7 did not seal properly

NH4 Spiked with Working Reagent: yes no Time Spiked? 1530NH4 Stds Vial# 0uM = A138 ³ 2.5uM = A99 5uM = A-44 10uM = A144 15uM = A108

Water Chemistry Sampling

Cruise: OSM JULY 2014

201407b

Station Name: S11Date: 31st July 2014Time Sampled: 14:35Cast #: 1 Event #: 20-22Sampler Names: Lincoln, Nick, Robert, Wenbo

Niskin Bottle	Target Depth (m)	Nick Oxygen Bottle #'s	Robert DIC Bottle#	NH4 Vial#	Lincoln NO3	NO2	PO4	Mn (✓ when acid spiked)	
8	/	/	/	/	/	/	/	/	/
7	/	/	/	/	/	/	/	/	/
Not sealed 6?	0	043 C ✓ 042 C ✓	/	A120 ✓	✓	✓	✓	/	/
5	10	041 C ✓ 086 C ✓	C30 ✓	A86 ✓	✓	✓	✓	/	/
4	30	/	/	A97 ✓	✓	✓	✓	/	/
3	50	069 C ✓ 047 C ✓	C29 ✓	A63 ✓	✓	✓	✓	/	/
Not sealed 2	70	/	/	A65 ✓	✓	✓	✓	/	/
1	90	045 C ✓ 44 C ✓	C28 ✓	A72 ✓	✓	✓	✓	/	/

NOTES:

Niskin #2 and #6 not sealed.

NH4 Spiked with Working Reagent: yes no Time Spiked? 1530

NH4 Stds Vial# 0uM = A75 2.5uM = 5uM = 10uM = 15uM =

See standards from 84.5