

①

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

9:39am

Cruise ID: <u>2015-07</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy):
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	<u>05</u> <u>11</u> <u>2015</u>
Initial Standby Value: <u>5997</u>	Ratio After Standardization: <u>5995</u>	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: <u>5997</u> After: <u>5995</u> Notes: _____	K ₁₅ VALUE: <u>0.999 84</u> Batch #: <u>P156</u> Batch Date: <u>July 23/16</u>
	Bath Temperature: <u>24</u> °C	Sample Temperature: <u>23.2</u> °C
	Room Temperature: <u>22.5</u> °C	Analyst: <u>(MB)</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
4	Slip-1	4	1.83088	1.83088		3 flushes
6		6	1.83108	1.83108		Leak 2 reading
* 6		6	1.83117	1.83119		minimum
8		8	1.81116	1.81117		
10		10	1.79746	1.79747		
12		12	1.79717	1.79718		
14		14	1.79357	1.79350		R. Salt
15	Slip-2	1	1.83080	1.83079		4x Flush
16		2	1.82991	1.82992		
17		3	1.83028	1.83029		
* 17		3	1.83079	1.83080		
18		4	1.81710	1.81710		
19		5	1.80203	1.80203		
20		6	1.79738	1.79738		
21		7	1.79640	1.79639		
23	Slip-3	2	1.82829	1.82829		4x f.
25		4	1.82820	1.82819		
* 25		4	1.82824	1.82824		
27		6	1.81767	1.81768		
29		8	1.80468	1.80469		
31		10	1.80024	1.80025		
33		12	1.79510	1.79510		
						Final Standby Value:

Notes: _____

(2)

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

SWL

AUTOSAL ANALYSIS LOGSHEET

10:25 am

Cruise ID: <u>2015-07</u>		Cast/Station Name: _____		Analysis Date (dd mmm yyyy): <u>05 11 2015</u>	
Autosal Model: <u>8400B</u>		Serial Number: <u>68572</u>			
Initial Standby Value: <u>245995</u>		Ratio After Standardization: _____			
Cell Standardization (Daily)	Standardization Values:	Standard Info.		Bath Temperature: <u>24</u> °C	
Conductivity must be ± 0.00001 compared to Standard 	Before: _____ After: _____ Notes: _____	K ₁₅ VALUE: <u>0.999 84</u> Batch #: <u>P156</u> Batch Date: <u>July 23/16</u>		Sample Temperature: <u>22.5</u> °C Room Temperature: <u>22.6</u> °C Analyst: <u>MS</u>	

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
35	Slip-5	2	1.83894	1.83896		4x fl
37		4	1.83890	1.83890		
* 37		4	1.83861	1.83862		
39		6	1.81982	1.81983		
41		8	1.81807	1.81806		
43		10	1.81639	1.81639		
45		12	1.81646	1.81646		
47	Slip-4	2	1.84950	1.84951		4fl
51		6	1.84860	1.84860		
55		10	1.83597	1.83597		
59		14	1.83011	1.83012		
63		18	1.82736	1.82738		
67		22	1.82513	1.82514		
69	BCL-6a	2	1.88446	1.88446		4fl
71		4	1.88449	1.88448		
73		6	1.88449	1.88449		
75		8	1.88008	1.88007		
77		10	1.84295	1.84295		
78	UTBS-5	1	1.87895	1.87894		4fl.
79		2	1.87906	1.87906		
* 79		2	1.87941	1.87941		
80		3	1.87897	1.87898		
81		4	1.86832	1.86832		
82		5	1.86304	1.86304		
						Final Standby Value: _____

Notes:

very stable - readings = no movement on last digit

(3)

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

11:25 am

Cruise ID: <u>2015-07</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>05 11 2015</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	
Initial Standby Value: <u>5995</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: _____ After: <u>same</u> Notes: _____	K ₁₅ VALUE: <u>0.999</u> Batch #: <u>same</u> Batch Date: _____
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>22.5</u> °C Room Temperature: <u>22.1</u> °C Analyst: <u>(MS)</u>

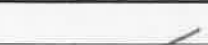
Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
84	UTBS-2	2	1.87541	1.87541		4 fl.
86		4	1.87732	1.87732		
88		6	1.87261	1.87262		
90		8	1.86333	1.86333		
92		10	1.85840	1.85842		
94	UTBS-4	2	1.88075	1.88075		4 fl.
96		4	1.88092	1.88093		
96		4	1.88097	1.88097		
98		6	1.88095	1.88095		
100		8	1.87170	1.87170		
102		10	1.86107	1.86107		
103	UTBS-1	1	1.88089	1.88089		4 fl.
107		5	1.88087	1.88087		
111		9	1.87548	1.87548		
115		13	1.86758	1.86759		
120	BRS-3	2	1.87225	1.87225		4 fl. forgot - only 3 fl.
122		4	1.87269	1.87270		
122		4	1.87236	1.87237		
124		6	1.87174	1.87174		
126		8	1.85476	1.85477		
128		10	1.84733	1.84734		
130	UTN-1	2	1.83471	1.83471		4 fl.
132		4	1.83588	1.83590		
134		6	1.83296	1.83297		
136		8	1.79269	1.79269		Final Standby Value:

Notes: _____

SW/

AUTOSAL ANALYSIS LOGSHEET

12:10 pm

Cruise ID: <u>2015-07</u>		Cast/Station Name: _____		Analysis Date (dd mmm yyyy): <u>05</u> <u>11</u> <u>2015</u>	
Autosal Model: <u>8400B</u>		Serial Number: <u>68572</u>			
Initial Standby Value: <u>5995</u>		Ratio After Standardization: _____			
Cell Standardization (Daily)		Standardization Values:		Standard Info.	
Conductivity must be ± 0.00001 compared to Standard 		Before: 		K ₁₅ VALUE: <u>0.999</u>	
		After: _____		Batch #: <u>Same</u>	
		Notes: _____		Batch Date: _____	
				Bath Temperature: <u>24</u> °C	
				Sample Temperature: <u>22.5</u> °C	
				Room Temperature: <u>22.4</u> °C	
				Analyst: <u>MS</u>	

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
137	VTN-2	1	1.85951	1.85952		4 fl.
138		2	1.85950	1.85950		
138		2	1.85962	1.85959		
139		3	1.85878	1.85879		
140		4	1.85763	1.85763		leaking
141	↓	5	1.85020	1.85022		
143	VTN-3	2	1.87503	1.87502		4 fl.
145		4	1.87633	1.87634		
147		6	1.87294	1.87294		
149		8	1.86648	1.86649		
151	↓	10	1.82133	1.82132		
152	VTN-4	1	1.88101	1.88102		4 fl. leaking.
156		5	1.88040	1.88040		
156		5	1.88041	1.88038		
160		9	1.87958	1.87958		
164		13	1.87483	1.87484		
168	↓	17	1.87010	1.87009		
172	Sec-8	2	1.80135	1.80135		4 fl.
173		3	1.80157	1.80156		
174		4	1.80006	1.80005		
175	↓	5	1.76308	1.76309		
						Final Standby Value:

Notes: _____

1:24 pm

Cruise ID: <u>2015-07</u>		Cast/Station Name: _____		Analysis Date (dd mm yyyy): <u>05 11 2015</u>	
Autosal Model: <u>8400B</u>		Serial Number: <u>68572</u>			
Initial Standby Value: <u>5994</u>		Ratio After Standardization: _____			
Cell Standardization (Daily)	Standardization Values:	Standard Info.		Bath Temperature: <u>24</u> °C	
Conductivity must be ± 0.00001 compared to Standard 	Before: _____	K ₁₅ VALUE: <u>0.999</u>		Sample Temperature: <u>22.4</u> °C	
	After: _____	Batch #: <u>Same</u>		Room Temperature: <u>22.8</u> °C	
	Notes: _____	Batch Date: _____		Analyst: <u>MB</u>	

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
177.	Sec - 7	2	1.82092	1.82091		4 ft.
179		4	1.82213	1.82212		
179		4	1.82185	1.82186		
181		6	1.81830	1.81830		
183		8	1.81605	1.81604		
185	▼	10	1.81493	1.81494		
186	Sec-6	1	1.83893	1.83895		4 ft.
187		2	1.83849	1.83849		
188		3	1.83807	1.83806		
189		4	1.83404	1.83404		
190	●	5	1.80934	1.80935		
192	Sec-5	2	1.83875	1.83876		4 ft.
194		4	1.83882	1.83882		
194		4	1.83896	1.83898		
196		6	1.83866	1.83865		
198		8	1.83898	1.83898		
200	●	10	1.83468	1.83468		▶ 1.85342
201	Sec-4	1	1.85328	1.85332	1.85339	XX Sagitt 3 only
202		2	1.85220	1.85220		
203		3	1.84923	1.84922		
204		4	1.84694	1.84695		
205	●	5	1.84046	1.84047		
						Final Standby Value:

Notes:

3 flushes min + 2 readings

Stable machine !!

(6)

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

SWL

AUTOSAL ANALYSIS LOGSHEET

2:20pm

Cruise ID: <u>2015-07</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>05 11 2015</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	
Initial Standby Value: <u>5994/5</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: _____ After: _____ Notes: _____	K ₁₅ VALUE: <u>0.999</u> Batch #: _____ Batch Date: _____
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>22.7</u> °C Room Temperature: <u>22.5</u> °C Analyst: <u>MB</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
207	Sec-3	2	1.88068	1.88068		4fl
209		4	1.88107	1.88108		
* 209		4	1.88114	1.88115		
211		6	1.88072	1.88072		
213		8	1.87670	1.87671		
215		10	1.87356	1.87356		
216	UTN-6	1	1.87966	1.87966		4fl
217		2	1.87947	1.87947		
218		3	1.87860	1.87859		
219		4	1.87731	1.87731		
220		5	1.87418	1.87418		
221	Sec-2	1	1.88362	1.88361		4fl
222		2	1.88389	1.88389		
* 222		2	1.88391	1.88390		
223		3	1.88377	1.88378		
224		4	1.88308	1.88307		
225		5	1.87561	1.87562		
227	Sec-1	2	1.88264	1.88264		4fl
229		4	1.88275	1.88276		
231		6	1.88289	1.88288		leaking
233		8	1.88278	1.88279		
235		10	1.87918	1.87918		
						Final Standby Value: _____

Notes: _____

AUTOSAL ANALYSIS LOGSHEET

3:05 pm

Cruise ID: <u>2015-07</u>		Cast/Station Name: _____		Analysis Date (dd mmm yyyy): <u>05 11 2015</u>	
Autosal Model: <u>8400B</u>		Serial Number: <u>68572</u>			
Initial Standby Value: <u>5995</u>		Ratio After Standardization: <u>/</u>			
Cell Standardization (Daily)		Standardization Values:		Standard Info.	
Conductivity must be ± 0.00001		Before: _____		K ₁₅ VALUE: <u>0.999</u>	
compared to Standard 		After: _____		Batch #: <u>SAME</u>	
		Notes: _____		Batch Date: _____	
				Bath Temperature: <u>24</u> °C	
				Sample Temperature: <u>22.5</u> °C	
				Room Temperature: <u>22.5</u> °C	
				Analyst: <u>(MS)</u>	

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
237	UTN-7	2	1.88574	1.88575		4 fl.
239		4	1.88528	1.88528		
239		4	1.88512	1.88513		
241		6	1.88503	1.88505		
243		8	1.88500	1.88500		leaking
245		10	1.88394	1.88395		
247		12	1.88281	1.88282		
248	DB04-6	1	1.86358	1.86359		4 fl.
249		2	1.86163	1.86162		
250		3	1.86328	1.86329		
251		4	1.83816	1.83816		
252		5	1.74554	1.74555		
254	DB04-5	2	1.86801	1.86800		4 fl.
256		4	1.86389	1.86389		
256		4	1.86372	1.86373		
258		6	1.86049	1.86047		
260		8	1.83617	1.83617		
262		10	1.73643	1.73644		
263	DB04-4	1	1.86634	1.86635		4 fl.
267		5	1.86898	1.86892		
271		9	1.86816	1.86818		
275		13	1.84024	1.84025		
279		17	1.77281	1.77282		
						Final Standby Value:

Notes: _____

SWL

AUTOSAL ANALYSIS LOGSHEET

4 ppm

Cruise ID: <u>2015-07</u>		Cast/Station Name: _____		Analysis Date (dd mmm yyyy):	
Autosal Model: <u>8400B</u>		Serial Number: <u>68572</u>		<u>05</u> <u>11</u> <u>2015</u>	
Initial Standby Value: <u>5995/4</u>		Ratio After Standardization: _____			
Cell Standardization (Daily)		Standardization Values:		Standard Info.	
Conductivity must be ± 0.00001 compared to Standard		Before: _____		K ₁₅ VALUE: <u>0.999</u>	
		After: _____		Batch #: _____	
		Notes: _____		Batch Date: _____	
		Bath Temperature: <u>24</u> °C			
				Sample Temperature: _____ °C	
				Room Temperature: <u>23.0</u> °C	
				Analyst: <u>MS</u>	

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
284	DB04.3	2	1.86719	1.86719		481
286		4	1.86808	1.86809		
286		4	1.86803	1.86805		
288		6	1.85407	1.85407		
290		8	1.80749	1.80749		
292	↓	10	1.78508	1.78509		
294	DB04.2	2	1.86232	1.86232		481
296		4	1.86664	1.86664		
298		6	1.83459	1.83459		
300		8	1.80003	1.80002		
302	↓	10	1.78339	1.78339		
304	DB04.1	2	1.86033	1.86034		481
306		4	1.86168	1.86167		
306		4	1.86156	1.86156		
308		6	1.83514	1.83513		
310		8	1.80626	1.80627		
312	↓	10	1.79884	1.79884		
314	BarC-10	2	1.84848	1.84848		481
316		4	1.84809	1.84810		
318		6	1.83340	1.83341		
320		8	1.81557	1.81557		
322		10	1.80035	1.80036		
324	↓	12	1.76206	1.76204		
						Final Standby Value:

Notes:

stable smooch sailing !!

(9)

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

SWL

AUTOSAL ANALYSIS LOGSHEET

4:55pm

Cruise ID: <u>2015-07</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy):
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	<u>05</u> <u>11</u> <u>2015</u>
Initial Standby Value: <u>5995</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: _____	K ₁₅ VALUE: <u>0.999</u>
	After: _____	Batch #: _____
	Notes: _____	Batch Date: _____
		Bath Temperature: <u>24</u> °C
		Sample Temperature: <u>22.6</u> °C
		Room Temperature: <u>22.7</u> °C
		Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
326	BarC-9	1	1.86236	1.86235		4 fl
327		2	1.84983	1.84982		
* 327		2	1.84964	1.84965		
328		3	1.83448	1.83447		
329		4	1.82336	1.82337		
330		5	1.80152	1.80152		
331	↓	6	1.72990	1.72989		
333	BarC-8	2	1.86608	1.86609		4 fl
335		4	1.85394	1.85393		
337		6	1.83755	1.83754		
339		8	1.82960	1.82961		
341		10	1.81355	1.81354		
343	↓	12	1.76224	1.76223		
344	BarC-7	1	1.86753	1.86754		4 fl
345		2	1.84814	1.84815		
346		3	1.83871	1.83869		
347		4	1.83366	1.83366		
348		5	1.82469	1.82469		
349	↓	6	1.76727	1.76728		
351	BarC-6	2	1.86742	1.86743		4 fl
351		2	1.86730	1.86730		
353		4	1.86811	1.86812		
355		6	1.84600	1.84599		
357		8	1.83952	1.83950		
359		10	1.82903	1.82905		
361		12	1.80428	1.80427		

Notes:

363 ↓ 14 1.76734 1.76734

10

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

SWL

AUTOSAL ANALYSIS LOGSHEET

5:45

Cruise ID: <u>2015-07</u>	Cast/Station Name: _____	Analysis Date (dd mmm yyyy): <u>05 11 2015</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>68572</u>	
Initial Standby Value: <u>5995</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard 	Before: _____ After: _____ Notes: _____	K ₁₅ VALUE: <u>0.999</u> Batch #: _____ Batch Date: _____
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>22.8</u> °C Room Temperature: <u>23.2</u> °C Analyst: <u>MS</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
364	BarC-5	1	1.86445	1.86445		4 f1
366		3	1.86448	1.86446		
368		5	1.86441	1.86440		
370		7	1.85430	1.85431		
372		9	1.84611	1.84610		
376		13	1.83987	1.83988		
380		17	1.83287	1.83287		
384		21	1.76754	1.76752		
389	BarC-4	2	1.86218	1.86220		4 f1
391		4	1.86216	1.86218		
* 391		4	1.86219	1.86218		
393		6	1.86221	1.86221		
395		8	1.85417	1.85418		
397		10	1.84719	1.84719		
399		12	1.84338	1.84338		
401		14	1.83390	1.83391		
403		16	1.77453	1.77453		
404	BarC-3	1	1.85352	1.85354		4 f1
405		2	1.85412	1.85412		
406		3	1.85273	1.85275		
407		4	1.85095	1.85096		
408		5	1.83957	1.83957		
409		6	1.82020	1.82019		
410		7	1.72923	1.72923		
						Final Standby Value: _____

Notes: _____

SWL

AUTOSAL ANALYSIS LOGSHEET

6:30 pm

Cruise ID: <u>2015-07</u>		Cast/Station Name: _____		Analysis Date (dd mmm yyyy):	
Autosal Model: <u>8400B</u>		Serial Number: <u>68572</u>		<u>05</u> <u>11</u> <u>2015</u>	
Initial Standby Value: <u>5995</u>		Ratio After Standardization: _____			
Cell Standardization (Daily)		Standardization Values:		Standard Info.	
Conductivity must be ± 0.00001 compared to Standard 	Before: _____		K ₁₅ VALUE: <u>0.999</u>		Bath Temperature: <u>24</u> °C
	After: _____		Batch #: _____		Sample Temperature: <u>22.5</u> °C
	Notes: _____		Batch Date: _____		Room Temperature: <u>23.2</u> °C
				Analyst: <u>MS</u>	

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
412	BarC-2	2	1.83401	1.83403		4 fl.
414	↓	4	1.84140	1.84140		
414	↓	4	1.84121	1.84129	1.84127	
416	↓	6	1.80456	1.80456		
418	↓	8	1.77437	1.77439		
419	BarC-1	1	1.82327	1.82327		4 fl.
420	↓	2	1.82139	1.82140		
421	↓	3	1.77760	1.7760		
422	↓	4	1.75753	1.75754		
Standard (1.99968)						
	8 flushes.		1.99968	1.99967		
	9 flushes.		1.99968	1.99969		

Notes: _____