

①

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

10:35

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy):
Autosal Model: <u>8400 B</u>	Serial Number: <u>68572</u>	<u>5</u> <u>12</u> <u>2017</u>
Initial Standby Value: <u>24+6090</u>	Ratio After Standardization: <u>NEW STANDBY 24+6086</u>	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: <u>6.39 Rs</u> After: <u>NEW Rs = 6.34</u> New Notes: <u>Corr. 0.000000</u>	K ₁₅ VALUE: <u>0.999 83</u> Batch #: <u>P160</u> Batch Date: <u>July 20, 2019</u>
	Bath Temperature: <u>24</u> °C Sample Temperature: <u>22.03</u> °C Room Temperature: <u>21.74</u> °C Analyst: <u>Mary Steel</u>	

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
1	NP-1	1	1.96794	1.96794		4f
2		2	1.96231	1.96231		
2		2	1.95358	1.95358		these look like
3		3	1.95361	1.95360		✓ duplicates
4		4	1.94832	1.94833		
5		5	1.94648	1.94648		
6		6	1.94572	1.94573		
7		7	1.94536	1.94536		
8		8	1.94312	1.94311		
9		9	1.94001	1.94000		
10		10	1.93510	1.93511		
11		11	1.92036	1.92037		
12		12	1.88778	1.88778		
13		13	1.86157	1.86157		
14		14	1.84114	1.84113		
15		15	1.82685	1.82685		
16		16	1.82015	1.82015		
17		17	1.81974	1.81974		
18	NP-2	1	1.96904	1.96904		4f
18		1	1.96899	1.96897	1.96897	
19		2	1.96286	1.96286		
20		3	1.95316	1.95316		
21		4	1.94666	1.94667		
22		5	1.94546	1.94547		
23		6	1.94492	1.94492		Final Standby Value: <u>11.25</u>
24		7	1.94457	1.94457		<u>6086</u>

Notes: Smooth sailing

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Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

11:25 am.

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>5 12 2017</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>WP 68572</u>	
Initial Standby Value: <u>24+6086</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>21.98</u> °C Room Temperature: <u>22.98</u> °C Analyst: <u>Mary Speed</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
25	NP-2	8	1.94247	1.94248		
26		9	1.94146	1.94147		
27		10	1.92873	1.92873		
28		11	1.90462	1.90462		
29		12	1.87897	1.87898		
31		14	1.85274	1.85275		
33		16	1.84039	1.84038		
35		18	1.83028	1.83027		
37		20	1.87048	1.87048		
39		22	1.80555	1.80555		
42	NP-3	1	1.96678	1.96678		48
43		2	1.96211	1.96212		
44		3	1.95244	1.95245		
45		4	1.94553	1.94554		
45		4	1.94550	1.94547	1.94547	
46		5	1.94503	1.94503		
47		6	1.94480	1.94480		
48		7	1.94251	1.94251		
49		8	1.93903	1.93903		Lunch
50		9	1.93346	1.93345		
51		10	1.92481	1.92482		
52		11	1.90517	1.90518		
53		12	1.88158	1.88158		
54		13	1.86325	1.86325		
55		14	1.85479	1.85479		Final Standby Value:
56		15	1.85307	1.85307		

Notes: DWR 1.97948 1.97956 1.97955 345975 so 00001 4 flushes

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Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

1:50 pm

Cruise ID: <u>2017-93</u>		Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>5 12 2017</u>
Autosal Model: <u>8400B</u>		Serial Number: <u>WP 68572</u>	
Initial Standby Value: <u>24+6086</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</u> Batch #: _____ Batch Date: _____	Sample Temperature: <u>21.96</u> °C Room Temperature: <u>22.27</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
57	NP-3	16	184786	1.84786		
58	1	17	184580	1.84582		
59	NP-4	1	1.96765	1.96765		4f.
59	1	1	1.96771	1.96769		
60	1	2	1.96239	1.96239		
61	1	3	1.95312	1.95313		
62	1	4	1.94529	1.94530		
63	1	5	1.94188	1.94188		
64	1	6	1.94146	1.94147		
65	1	7	1.94078	1.94078		
66	1	8	1.94063	1.94063		
67	1	9	1.93929	1.93929		
68	1	10	1.93440	1.93439		
69	1	11	1.91768	1.91767		
70	1	12	1.89372	1.89373		
71	1	13	1.88468	1.88470		
72	1	14	1.88139	1.88140		
73	1	15	1.87850	1.87850		
74	1	16	1.87818	1.87822	1.87822	
75	1	17	1.87860	1.87861		
83	NP-5	1	1.96726	1.96727		4f.
83	1	1	1.96693	1.96694		
84	1	2	1.96149	1.96149		
85	1	3	1.95232	1.95233		
86	1	4	1.94626	1.94627		
87	1	5	1.94222	1.94222		Final Standby Value: <u>6086</u>

Notes: _____ _____ _____

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Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

1:45 pm

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>5 12 2017</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>WP-68572</u>	
Initial Standby Value: <u>24+6086</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>21.79</u> °C Room Temperature: <u>22.63</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
88	NP-5	6	1.94014	1.94013		
89		7	1.93978	1.93979		
90		8	1.93959	1.93959		
91		9	1.93868	1.93867		
92		10	1.93085	1.93084		
93		11	1.89371	1.89371		
94		12	1.88660	1.88660		
95		13	1.88451	1.88452		
96		14	1.88125	1.88125		
97		15	1.88063	1.88063		
98		16	1.88108	1.88109		
99		17	1.88082	1.88084		
100	NP-6	1	1.96774	1.96774		45
101		2	1.96240	1.96240		
102		3	1.95288	1.95288		
103		4	1.94597	1.94598		
103		4	1.94591	1.94591		
104		5	1.94185	1.94186		
105		6	1.94051	1.94054	1.94054	
106		7	1.93845	1.93845		
107		8	1.93615	1.93615		
108		9	1.93106	1.93112	1.93112	
109		10	1.91154	1.91154		
110		11	1.89008	1.89007		
111		12	1.88404	1.88406	1.88407	Final Standby Value:
112		13	1.88023	1.88024		6086

Notes:	DWR	1.97942	1.97942	1.97942	34.5954	SD 0.0001	4 flushes
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Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

2:55 pm

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>5 12 2017</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>WP 68572</u>	
Initial Standby Value: <u>24+6086</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>21.85</u> °C Room Temperature: <u>22.56</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
113	NP-6	14	1.87604	1.87604		
114		15	1.87133	1.87134		
115		16	1.87114	1.87114		
116		17	1.87113	1.87114		could be duplicates??
124	NP-7	1	1.96811	1.96812		4f.
125		2	1.96378	1.96379		
126		3	1.95538	1.95537		
126		3	1.95519	1.95520		
127		4	1.94893	1.94894		
128		5	1.94265	1.94265		
129		6	1.94112	1.94112		
130		7	1.93935	1.93935	1.93935	
131		8	1.93816	1.93816		
132		9	1.93594	1.93594		
133		10	1.92331	1.92332		
134		11	1.89389	1.89389		
135		12	1.88797	1.88796		
136		13	1.88655	1.88655		
137		14	1.88157	1.88157		
138		15	1.87809	1.87809		
139		16	1.87719	1.87719		could be duplicates
140		17	1.87715	1.87716		
142	NP-8	1	1.96884	1.96885		4f.
143		2	1.96467	1.96465		
144		3	1.95789	1.95788		Final Standby Value:
145		4	1.95109	1.95110		

Notes: _____

AUTOSAL ANALYSIS LOGSHEET

10:30 am

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>7 12 2017</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>WP 68572</u>	
Initial Standby Value: <u>24+6086</u>	Ratio After Standardization: <u>NEW 24+6090</u>	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard CORN: <u>-0.0000001</u>	Before: <u>1.99960</u> After: <u>1.99966</u> Notes: <u>NEW RS = 6.39</u>	K ₁₅ VALUE: <u>0.999 23</u> Batch #: <u>P160</u> Batch Date: <u>July 20/19</u>
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>22.01</u> °C Room Temperature: <u>22.40</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
166	NP-9	1	1.96988	1.96987		
167		2	1.96547	1.96547		
168		3	1.95952	1.95952		
169		4	1.95438	1.95439		
170		5	1.94931	1.94932		
171		6	1.94785	1.94785		
172		7	1.94584	1.94585		
173		8	1.94356	1.94356		
174		9	1.94142	1.94140		
175		10	1.93693	1.93693		
176		11	1.92057	1.92057		
177		12	1.89538	1.89539		
178		13	1.89160	1.89160		
179		14	1.88814	1.88812		
180		15	1.88166	1.88166		
181		16	1.87839	1.87839		
182		17	1.87827	1.87828		
184	NP-10	1	1.96920	1.96920		4f.
185		2	1.96502	1.96501		
186		3	1.95795	1.95795		
187		4	1.95206	1.95207		
188		5	1.94587	1.94587		
189		6	1.94320	1.94321		
190		7	1.94151	1.94150		
191		8	1.93964	1.93963		
192		9	1.93895	1.93895		

Final Standby Value:
6090

Notes: _____

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Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

11:15 am

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>7 12 2017</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>WP 68572</u>	
Initial Standby Value: <u>24+6090</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>22.01</u> °C Room Temperature: <u>22.00</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
193	NP-10	10	193630	193629		
194		11	192202	192203		
195		12	189479	189479		
196		13	187997	187998		
197		14	187751	187752		
198		15	187437	187438		
199		16	187424	187425		
200		17	187466	187466		
208	NP-11	1	196793	196794		4f.
209		2	196265	196266		
210		3	195667	195668		
211		4	195013	195019	195020	
212		5	194212	194411		
213		6	194097	194098		
214		7	194040	194039		
215		8	193811	193810		
216		9	193406	193409	193410	
217		10	192335	192336		
218		11	190995	190996		
219		12	189241	189240		
220		13	188207	188207		
221		14	188032	188033		
222		15	187780	187780		
223		16	186822	186823		
224		17	186821	186821		could be duplicates
			Final Standby Value: _____			

Notes: _____

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Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

12:22 pm

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>7 12 2017</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>WP 68572</u>	
Initial Standby Value: <u>24+6090</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>21.99</u> °C Room Temperature: <u>22.25</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
226	Slip-1	1	1.85350	1.85350		4f
228		3	1.84763	1.84763		
230		5	1.83728	1.83727		
232		7	1.83354	1.83355		
234		9	1.78804	1.78804		
236		11	1.78374	1.78375		
238	Slip-2	1	1.85170	1.85170		4f
240		3	1.85155	1.85154		
242		5	1.84392	1.84393		
245		8	1.83525	1.83524		Bottle Sample is changed
245		8	1.83525	1.83525		
246		9	1.83032	1.83032		
248		11	1.79404	1.79405		
250		13	1.78414	1.78414		
253	Slip-3	1	1.85685	1.85684		4f ; some
255		3	1.85684	1.85684		some
257		5	1.85245	1.85245		
259		7	1.83939	1.83939		
261		9	1.80019	1.80019		
263		11	1.79739	1.79738		
265	Slip-5	1	1.85500	1.85501		4f
265		1	1.85499	1.85499		
267		3	1.85511	1.85511		
269		5	1.85439	1.85439		
271		7	1.83844	1.83845		Final Standby Value:

Notes: _____

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Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

1:10

Cruise ID: <u>2017-93.</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy):
Autosal Model: <u>8400 B.</u>	Serial Number: <u>WP 68572.</u>	<u>7 12 2017.</u>
Initial Standby Value: <u>24+6090.</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>21.74</u> °C Room Temperature: <u>22.30</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
273	Slip-5	9	1.81244	1.81245		
275	1	11	1.80883	1.80882		
277	Slip-4	1	1.86369	1.86370		4f
279		3	1.85519	1.85519		
281		5	1.84894	1.84895		
283		7	1.84671	1.84672		
283		7	1.84671	1.84673		
285		9	1.83551	1.83552		
287		11	1.83352	1.83352		
296	BCL-6a	1	1.87195	1.87194		4f
298		3	1.87181	1.87180		same?
300		5	1.87179	1.87179		same?
302		7	1.87470	1.87470		
304		9	1.82005	1.82005		
306	BCL-6c	1	1.88825	1.88826		4f
308		3	1.88844	1.88844		
310		5	1.88828	1.88828		
312		7	1.88766	1.88767		
314		9	1.88209	1.88208		
318	UTBS-5	3	1.87573	1.87573		
320		5	1.87617	1.87617		
322		7	1.87625	1.87625		
324		10	1.79706	1.79704		bottle # changed on label
326	UTBS-2	1	1.87529	1.87529		4f
328		3	1.87515	1.87514		Final Standby Value: 1:52pm
330		5	1.87246	1.87246		6090

Notes:	316 UTBS-5	1	1.87547	1.87548	4f
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Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

2:05 pm

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy):
Autosal Model: <u>8400B</u>	Serial Number: <u>WP 68572</u>	<u>7</u> <u>12</u> <u>2017</u>
Initial Standby Value: <u>24+6090</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>21.75</u> °C Room Temperature: <u>22.40</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
332	UTBS-2	7	1.87140	1.87141		
334		9	1.82161	1.82161		
336	UTBS-2a	1	1.86028	1.86029		4f.
338		3	1.84941	1.84942		
340		5	1.84545	1.84545		
342		7	1.84035	1.84036		
344	DB02.7	1	1.86584	1.86586		4f
346		3	1.86693	1.86694		
348		5	1.85382	1.85383		
350		7	1.84090	1.84089		
352		9	1.84649	1.84649		
354	UTBS-1	1	1.88188	1.88188		4f
356		3	1.88287	1.88287		
358		5	1.88294	1.88293		
360		7	1.88186	1.88186		
362		9	1.81367	1.81367		
372	UTBS-4	1	1.88833	1.88834		4f.
374		3	1.88937	1.88937		same
376		5	1.88937	1.88938		same
378		7	1.88954	1.88951	1.88952	
380		9	1.81316	1.81315		
382	BRS-2	1	1.85481	1.85480		4f
384		3	1.85485	1.85485		
386		5	1.85504	1.85505		
388		7	1.85629	1.85629		Final Standby Value:
390		9	1.84499	1.84500		

Notes: DWR 197951 197951 197952 34.5973 0.00024 fuser

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Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

3:07 pm

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy):
Autosal Model: <u>8400B</u>	Serial Number: <u>WP 68572</u>	<u>7</u> <u>12</u> <u>2017</u>

Initial Standby Value: 24+6090Ratio After Standardization:

Cell Standardization (Daily)	Standardization Values:	Standard Info.	Bath Temperature: <u>24</u> °C
Conductivity must be ± 0.00001	Before: <u> </u>	K ₁₅ VALUE: <u>0.999</u>	Sample Temperature: <u>21.74</u> °C
compared to Standard 	After: <u> </u>	Batch #: <u> </u>	Room Temperature: <u>22.50</u> °C
	Notes: <u> </u>	Batch Date: <u> </u>	Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
392	BRS-3	1	1.85756	1.85755		4f
394		3	1.85757	1.85758		
396		5	1.85745	1.85745		
398		7	1.84715	1.84716		
400		9	1.84628	1.84628		
402	BRS-4	1	1.86025	1.86025		4f
404		3	1.86038	1.86039		
406		5	1.86048	1.86049		
408		7	1.85762	1.85761		
410		9	1.85857	1.85857		
412	UTN-1	1	1.85721	1.85720		4f
412		1	1.85705	1.85704		
414		3	1.85369	1.85369		
416		5	1.84900	1.84901		
418		7	1.84402	1.84403		
420	UTN-2	1	1.86632	1.86633		4f
422		3	1.86614	1.86614		
424		5	1.86610	1.86611		
LOOP1			1.78840	1.78840		4f
" 8			1.82907	1.82908		
" 18			1.81440	1.81440		
" 27			1.87650	1.87651		
" 37			1.86909	1.86909		
" 63			1.85129	1.85130		Zero:
" 66			1.83090	1.83090		Final Standby Value:
" 72			1.86475	1.86474		<u>6090</u>

Notes:					
" 91			1.84904	1.84904	
" 94			1.74107	1.74107	

AUTOSAL ANALYSIS LOGSHEET

11:20 am

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>8 12 2017</u>
Autosal Model: _____	Serial Number: <u>WP 68572</u>	
Initial Standby Value: <u>24 + 6090</u>	Ratio After Standardization: _____	
Cell Standardization (Daily)	Standardization Values:	Standard Info.
Conductivity must be ± 0.00001 compared to Standard	Before: <u>No adjustment</u> After: <u>0. Rs = 6.39</u> Notes: <u>1.99965</u>	K ₁₅ VALUE: <u>0.999 93</u> Batch #: <u>P160</u> Batch Date: <u>July 20 2019</u>
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>22.06</u> °C Room Temperature: <u>22.10</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
426	UTN-2	7	1.86679	1.86678		
428	1	9	1.86727	1.86727		
430	UTN-3	1	1.88233	1.88234		4f
432	↓	3	1.88231	1.88231		
434	↓	5	1.88195	1.88196		
436	↓	7	1.88014	1.88014		
438	↓	9	1.88030	1.88031		
440	UTN-4	1	1.87908	1.87907		4f
442	↓	3	1.87921	1.87920		
444	↓	5	1.87754	1.87753		
444	↓	5	1.87751	1.87751		
446	↓	7	1.87324	1.87323		
448	↓	9	1.86884	1.86884		
458	SEC-8	1	1.83584	1.83583		4f
460	↓	3	1.83439	1.83438		
462	↓	5	1.83500	1.83500		
464	↓	7	1.82508	1.82509		
466	SEC-7	1	1.85214	1.85214		4f
468	↓	3	1.85239	1.85238		- same?
470	↓	5	1.85239	1.85240		- same?
472	↓	7	1.84153	1.84153		
474	↓	9	1.83444	1.83445		
476	SEC-6	1	1.85626	1.85626		4f
478	↓	3	1.85617	1.85618		
480	↓	5	1.85600	1.85600		
482	↓	7	1.85548	1.85548		
					Final Standby Value:	<u>6090</u>

Notes: _____

(2)

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

12:15 pm

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy):
Autosal Model: <u>8400B</u>	Serial Number: <u>WP 68572</u>	<u>8</u> <u>12</u> <u>2017</u>
Initial Standby Value: <u>24+6090</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>21.72</u> °C Room Temperature: <u>22.10</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
484	SEC-6	9	1.85373	1.85373		
486	SEC-5	1	1.86061	1.86062		48
488		3	1.86494	1.86494		
490		5	1.86321	1.86322		
492		7	1.85901	1.85900		
494		9	1.85687	1.85686		
504	SEC-4	1	1.88565	1.88565		48
506		3	1.88536	1.88536		
508		5	1.88531	1.88532		
510		7	1.88433	1.88433		
512		9	1.88190	1.88190		
515	SEC-3	1	1.89211	1.89211		48
517		3	1.89215	1.89216		
519		5	1.89195	1.89195		
521		7	1.89041	1.89040		
523		9	1.88831	1.88832		
526	UTN-6	1	1.88466	1.88468	1.88469	48
528		3	1.88412	1.88409		
530		5	1.88416	1.88416		
532		7	1.87997	1.87996		
534		9	1.87376	1.87375		
536	SEC-2	1	1.88327	1.88328		48
538		3	1.88239	1.88239		
538		3	1.88247	1.88247		
540		5	1.88157	1.88156		Final Standby Value:
542		7	1.88146	1.88148		<u>6090</u>

Notes: _____

(3)

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

1:03 pm

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>8 12 2017</u>
Autosal Model: <u>8400 B</u>	Serial Number: <u>WP 68572</u>	
Initial Standby Value: <u>24+6090</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>21.55</u> °C Room Temperature: <u>22.29</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
544	SEC-2	9	1.87614	1.87615		
546	SEC-1	1	1.88191	1.88190		4f
548	↓	3	1.88184	1.88185		
550	↓	5	1.88197	1.88197		
552	↓	7	1.88404	1.88404		
554	↓	9	1.87781	1.87781		
556	UTN-7	1	1.89320	1.89320		4f
558	↓	3	1.89337	1.89339	1.89339	
560	↓	5	1.89339	1.89340		
562	↓	7	1.89284	1.89285		
564	↓	9	1.89234	1.89233		
566	↓	11	1.88887	1.88888		
568	DBO 4.6	1	1.85503	1.85503		4f
570	↓	3	1.85724	1.85725		
572	↓	5	1.85627	1.85628		
574	↓	7	1.84158	1.84159		
576	↓	9	1.83777	1.83777		
579	DBO 4.5	1	1.85297	1.85304	1.85304	4f
581	↓	3	1.85572	1.85572		
583	↓	5	1.85536	1.85536		
585	↓	7	1.84477	1.84475		
587	↓	9	1.83725	1.83724		
589	DBO 4.4	1	1.85572	1.85572		4f
591	↓	3	1.85343	1.85344		
591	↓	3	1.85344	1.85343		Final Standby Value:

Notes: <u>Guildline 9540 Digital Platinum Resistance Thermometer</u>
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(4)

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division

AUTOSAL ANALYSIS LOGSHEET

1:54 pm

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>8 12 2017</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>WP 168572</u>	
Initial Standby Value: <u>2416090</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>21.49</u> °C Room Temperature: <u>22.29</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
593	DBO 4.4	5	1.84617	1.84616		
595		7	1.83990	1.83990		
597		9	1.83276	1.83277		
607	DBO 4.3	1	1.86425	1.86425		48
609		3	1.86609	1.86610		
611		5	1.85057	1.85056		
613		7	1.84644	1.84645		
615		9	1.84469	1.84470		
617	DBO 4.2	1	1.87312	1.87312		48
619		3	1.87579	1.87579		
621		5	1.86888	1.86888		
623		7	1.84879	1.84880		
625		9	1.84418	1.84418		
627	DBO 4.1	1	1.86604	1.86604		48
629		3	1.86670	1.86671		
631		5	1.86679	1.86678		
633		7	1.87137	1.87136		
635		9	1.85860	1.85860		
637	BarC-10	1	1.85031	1.85030		48
639		3	1.84519	1.84522	1.84521	
641		5	1.83732	1.83731		
643		7	1.82944	1.82944		
645		9	1.80196	1.80197		
647		11	1.76525	1.76526		
649	BarC-9	1	1.85361	1.85363		48
651	1	3	1.84458	1.84459		Final Standby Value: 6091

Notes: _____

AUTOSAL ANALYSIS LOGSHEET

2:45 pm

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SWL</u>	Analysis Date (dd mmm yyyy): <u>8 12 2017</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>WP 68572</u>	
Initial Standby Value: <u>6091.1/6090</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>21.63</u> °C Room Temperature: <u>22.49</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
651	BarC-9	3	1.84464	1.84464		
653		5	1.83551	1.83551		
655		7	1.82853	1.82853		
657		9	1.81368	1.81368		
659		11	1.75904	1.75906		
661	BarC-8	1	1.85710	1.85711		45
663		3	1.84934	1.84934		
665		5	1.84275	1.84276		
667		7	1.82796	1.82796		
669		9	1.80883	1.80884		
671		11	1.76695	1.76695		
673	BarC-7	1	1.85615	1.85614		45
675		3	1.84852	1.84852		
677		5	1.84097	1.84097		
679		7	1.82334	1.82334		
681		9	1.79580	1.79580		
683		11	1.77332	1.77331		
686	BarC-6	1	1.85537	1.85537		45
688		3	1.85490	1.85489		
690		5	1.84458	1.84457		
692		7	1.82949	1.82949		
694		9	1.82496	1.82497		
696		11	1.80977	1.80976		
698		13	1.74444	1.74445		
Final Standby Value: <u>6090</u>						

Notes: _____

AUTOSAL ANALYSIS LOGSHEET

3:45 pm

Cruise ID: <u>2017-93</u>	Cast/Station Name: <u>SNL</u>	Analysis Date (dd mmm yyyy): <u>8 12 2017</u>
Autosal Model: <u>8400B</u>	Serial Number: <u>WP 68572</u>	
Initial Standby Value: <u>24+6000</u>	Ratio After Standardization: _____	
Cell Standardization (Daily) Conductivity must be ± 0.00001 compared to Standard	Standardization Values: Before: _____ After: _____ Notes: _____	Standard Info. K ₁₅ VALUE: <u>0.999</u> Batch #: _____ Batch Date: _____
		Bath Temperature: <u>24</u> °C Sample Temperature: <u>21.54</u> °C Room Temperature: <u>22.19</u> °C Analyst: <u>Mary Steel</u>

Sample	Station Name	Depth/Nisk#	Salinity 1	Salinity 2	Salinity 3	Comments
700	BarC-5	1	1.86351	1.86352		4f
700		1	1.86358	1.86359		
702		3	1.86372	1.86372		
704		5	1.86382	1.86382		
706		7	1.84611	1.84611		
708		9	1.84028	1.84029		
710		11	1.83098	1.83099		
712		13	1.80846	1.80846		
714		15	1.77901	1.77901		
724	BarC-4	1	1.85892	1.85891		4f
726		3	1.85871	1.85872		
728		5	1.85754	1.85754		
730		7	1.85720	1.85719		
732		9	1.85696	1.85696		same?
734		11	1.85696	1.85695		same?
736		13	1.82768	1.82764	1.82766	
738		15	1.80180	1.80180		
740	BarC-3	1	1.85574	1.85574		4f
740		1	1.85574	1.85574		
742		3	1.85584	1.85584		
744		5	1.85506	1.85506		
746		7	1.85476	1.85475		
748		9	1.85261	1.85261		
750		11	1.83622	1.83622		
752		13	1.82227	1.82226		Final Standby Value:

Notes: _____

AUTOSAL ANALYSIS LOGSHEET

4:32 pm

Cruise ID: <u>2017-93</u>		Cast/Station Name: <u>SWL</u>		Analysis Date (dd mmm yyyy): <u>8 12 2017</u>	
Autosal Model: <u>8400 B</u>		Serial Number: <u>WP 68572</u>			
Initial Standby Value: <u>24+6090</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: _____ °C
	Notes: _____		Batch Date: _____		Room Temperature: <u>22.12</u> °C
				Analyst: <u>Mary Steel</u>	

[illegible]

Notes:

Standard as sample

1.99976	1.99974
1.99974	1.99974
1.99975	1.99976

4 flushes