

Chlorophyll Data Sheet

SWL Marie
May Lap.

Cruise: 2018-~~38~~39

Page: 1 of 2

Dates of Cruise:

Time and date acetone added: 18 JUNE 18 13:25

Analyst: Hayleigh Rados

Time and date out of freezer: 12:23 19 JUNE

Time analysis started: 13:12

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.042			-seems high?
STD			LOW	2-	10.835			
STD			HIGH	4-	58.843			
Blank				6-	0.006	8-	0.002	
154	LC09		10	1-	9.201	2-	6.676	
155 A	LC09		10	3-	16.751	4-	11.580	
156	LC09		10	5-	29.388	6-	17.314	
157	LC09		10	7-	29.853	8-	17.265	
159	LC09		10	1-	29.895	2-	17.137	
167	LC08		10	3-	11.425	4-	8.807	
168	LC08		10	5-	30.518	6-	20.794	
169	LC08		10	7-	32.014	8-	19.790	
170A	LC08		10	1-	41.233	2-	23.713	
171	LC08		10	3-1-	39.850	4-	22.727	* UNDER sample 1 NOT 3
174	LC06		10	5-	26.835	6-	20.968	
175A	LC06		10	7-	84.523	8-	54.550	
176	LC06		10	1-	41.787	2-	24.137	
177	LC06		10	3-	43.225	4-	23.981	
178	LC06		10	5-	42.053	6-	23.973	
184	LC04		10	7-	28.709	8-	22.194	
185A	LC04		10	1-	53.792	2-	37.283	
186	LC04		10	3-	105.600	4-	65.709	* Filter Fell Face down
187	LC04		10	5-	41.536	6-	23.728	
189	LC04		10	7-	31.889	8-	18.024	
193	LC02		10	1-	27.798	2-	20.592	
194	LC02		10	3-	66.682	4-	42.189	
195	LC02		10	5-	195.319	6-	115.150	* super high
196A	LC02		10	7-	21.056	8-	11.759	
Stand-by				1-	0.006			
Std	Low			2-	10.801			
Std	High			4-	58.580			
Blank	by			6-	0.003	8-	0.003	6-TAKE Second Reading

154	A 155	156	157	159	157	168	169	170 A	171	174
Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl
LC09	LC09	LC09	LC09	LC09	LC08	LC08	LC08	LC08	LC08	LC06
50	30	20	10	5	50	30	20	10	5	50
2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39
Bot 12	Bot 13	Bot 14	Bot 15	Bot 17	Bot 7	Bot 8	Bot 9	Bot 10	Bot 11	Bot 3
175	176	177	178	184	185	186	187	189	193	
Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	
A LC06	LC06	LC06	LC06	LC04	A Chl	LC04	LC04	LC04	LC02	
30	20	10	5	50	30	20	10	5	50	
2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	
Bot 4	Bot 5	Bot 6	Bot 7	Bot 6	Bot 7	Bot 8	Bot 9	Bot 11	Bot 3	

194	195	196 A
Chl	Chl	Chl
LC02	LC02	LC02
30	20	10
2018-39	2018-39	2018-39
Bot 4	Bot 5	Bot 6

Chlorophyll Data Sheet

Cruise: 2018-39

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Dates of Cruise:

Time and date acetone added: 15:16 18JUNE

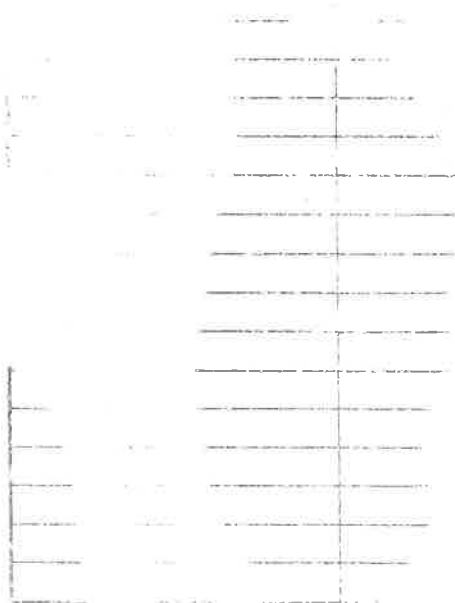
Analyst: HAYLEIGH RADOS

Time and date out of freezer: 14:19 19JUNE 2018

Time analysis started: 15:09

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.002			
STD			LOW	2-	10.862			
STD			HIGH	4-	58.649			
Blank				6-	0.003	8-	0.001	
5053A	LOOP		10	1-	31.912	2-	18.562	
5045B	LC11		10	3-	15.556	4-	9.857	
500061	LCC2		10	5-	12.625	6-	7.399	
201	LC01		10	7-	16.020	8-	12.741	
202A	LC01		10	1-	38.077	2-	27.662	*Delete Duplicate reading
203	LC01		10	3-	79.270	4-	51.307	Some Particles.
204	LC01		10	5-	271.180	6-	156.216	
205	LC01		10	7-	192.042	8-	113.695	
206	LD02		10	1-	40.535	2-	28.829	
207A	LD02		10	3-	43.026	4-	29.996	
208	LD02		10	5-	101.979	6-	98.594	-TAKE Second Read.
209	LD02		10	7-	141.117	8-	79.542	
210	LD02		10	1-	214.21	2-	119.69	
211	LD04		10	3-	51.103	4-	39.673	
212	LD04		10	5-	72.164	6-	45.964	
213	LD04		10	7-	113.142	8-	68.772	
214A	LD04		10	1-	25.192	2-	15.805	
215	LD04		10	3-	13.692	4-	7.664	
216	LG01		10	5-	19.494	6-	16.340	
217	LG01		10	7-	25.627	8-	19.106	
218A	LG01		10	1-	31.247	2-	22.289	-PARTICLES.
219	LG01		10	3-	43.898	4-	32.196	
220	LG01		10	5-	23.096	6-	14.403	
223	LG02		10	7-	10.780	8-	8.073	
Stand-by				1-	0.005			
Std	Low			2-	10.813			
Std	High			4-	58.398			
Blank	by			6-	0.004	8-	0.000	

5053 CHLA 2018-39 LOOP	5045 CHL B 2018-39 LOOP LC11	2018-39 5000601 LC02 CHL A LOOP	201 Ch1 LC01 30 2018-39 Bot 3	202A Ch1 LC01 20 2018-39 Bot 4	203 Ch1 LC01 10 2018-39 Bot 5	204A Ch1 LC01 5 2018-39 Bot 6	205 Ch1 LC01 5 2018-39 Bot 7	206 Ch1 LD02 bot-10 2018-39 Bot 1	207A Ch1 LD02 30 2018-39 Bot 2	208 Ch1 LD02 20 2018-39 Bot 3
209 Ch1 LD02 10 2018-39 Bot 4	210 Ch1 LD02 5 2018-39 Bot 5	211 Ch1 LD04 Bot-10 2018-39 Bot 1	212 Ch1 LD04 30 m 2018-39 Bot 2	213 Ch1 LD04 20 m 2018-39 Bot 3	214A Ch1 LD04 10 m 2018-39 Bot 4	215 Ch1 LD04 5 m 2018-39 Bot 5	216 Ch1 LG01 bot-10 2018-39 Bot 1	217 Ch1 LG01 2018-39 Bot 2	218A Ch1 LG01 0 m 2018-39 Bot 3	219 Ch1 LG01 10 m 2018-39 Bot 4 #219
220 Ch1 LD02 50 2018-39 Bot 3	223 Ch1 LG02 50 2018-39 Bot 3									



12 samples

Chlorophyll Data Sheet

Cruise: 2018-39

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Dates of Cruise:

Time and date acetone added: 10:53 20 JUNE 2018

Analyst: Hayleigh

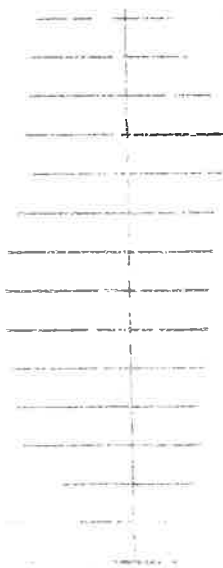
Time and date out of freezer: 9:27 21 JUNE 2018

Time analysis started: 10:23

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.005			
STD			LOW	2-	10.817			
STD			HIGH	4-	58.599			
Blank				6-	0.011	8-	0.011	
224	LG02	10		1-	24.017	2-	18.035	
225A	LG02	10		3-	26.137	4-	18.045	
226	LG02	10		5-	40.333	6-	25.214	
228	LG02	10		7-	41.587	8-	25.495	
234	LG04	10		1-9-	7.389	2-	5.969	*under 9 NOT 1
235	LG04	10		3-	54.032	4-	34.953	
236	LG04	10		5-	78.900	6-	48.843	
237	LG04	10		7-	28.438	8-	16.308	
238A	LG04	10		1-	28.362	2-	16.378	Dup 1 Read.
251	LG05	10		3-	10.149	4-	6.693	
252A	LG06	10		5-	27.257	6-	17.244	
253	LG06	10		7-	25.662	8-	16.323	
				1-		2-		
				3-		4-		
				5-		6-		
				7-		8-		
				1-		2-		
				3-		4-		
				5-		6-		
				7-		8-		
				1-		2-		
				3-		4-		
				5-		6-		
				7-		8-		
Stand-by				1-	0.005			
Std	Low			2-	10.848			
Std	High			4-	58.714			
Blank	by			6-	0.005	8-0.	0.005	

224	225	226	228	234	235	236	237	238	251	252
Chl	A chl	chl	Chl	Chl	Chl	Chl	Chl	Chl A	Chl	A chl
LG02	LG02	LG02	LG02	LG04	LG04	LG04	LG04	LG04	LG06	LG06
30	20	10	5	50	30	20	10	5	50	30
2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39
Bot 4	Bot 5	Bot 6	Bot 8	Bot 5	Bot 6	Bot 7	Bot 8	Bot 9	Bot 13	Bot 14

253
Chl
LG06
20
2018-39
Bot 15



Chlorophyll Data Sheet

Cruise: 2018-39

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Dates of Cruise:

Time and date acetone added: 15:09 20 JUNE 18

Analyst: Haynugh

Time and date out of freezer: 13:00 21 JUNE

Time analysis started: 14:00

New 90%
Acetone Batch
LOT# 181819
Fisher A929-4L

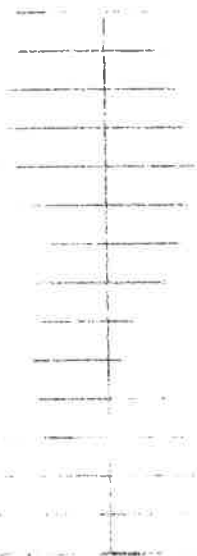
Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.003			
STD			LOW	2-	10.815			
STD			HIGH	4-	58.845			
Blank				6-	0.002	8-	0	
9	HAR059	10		1-	38.671	2-	24.009	
10A	HAR059	10		3-	37.832	4-	23.438	
11	HAR059	10		5-	25.607	6-	17.371	
17	JF2	10		7-	194.475	8-	106.291	
18A	JF2	10		1-	164.911	2-	91.526	
19	JF2	10		3-	192.958	4-	104.977	
20	JF2	10		5-	202.269	6-	109.863	
26A	LB01	20		7-	194.077	8-	114.911	
28A	LB02	10		1-	33.711	2-	23.331	
29	LB02	10		3-	167.621	4-	96.013	
21	JF2	10		5-	161.509	6-	88.638	
22	LB01	10		7-	99.131	8-	61.245	
23A	LB01	10		1-	162.020	2-	100.340	
24	LB01	20		3-	270.848	4-	158.454	
27	LB02	10		5-	28.392	6-	19.871	S-DUP AND SUSPICIOUS
30	LB02	20		7-	137.576	8-	79.695	3X DILUTION F
31A	LB02	20		1-	133.239	2-	77.868	3X DILUTION F
32A	LB03	20		3-	142.775	4-	83.204	3X DILUTION F
35	LB04	10		5-	48.986	6-	31.394	
36	LB04	10		7-	227.174	8-	127.984	
37	LB04	20		1-	293.542	2-	160.151	
38A	LB04	20		3-	133.352	4-	76.044	3X D F
39	LB04	20		5-	228.188	6-	132.760	
41	E1	10		7-	143.744	8-	80.660	3X D F
Stand-by				1-	0.004			
Std	Low			2-	10.764			
Std	High			4-	58.629			
Blank	by			6-	0.019	8-	0.018	

Never mind
I think I found the error on TXT
FILE

9	10 A	11	17	18 A	19	20	26 A	27 A	28	29	21
Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl
Haro59	Haro59	Haro59	JF2	JF2	JF2	JF2	LB01	LB02	LB02	LB02	JF2
10 m	5 m	0 m	30 m	20 m	10 m	5 m	5 m	30 m	30 m	20 m	0 m
2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39
Bot 9	Bot 10	Bot 11	Bot 6	Bot 7	Bot 8	Bot 9	Bot 5	Bot 2	Bot 3	Bot 3	Bot 10

22	23 A	24	27	30	31	32	35	36	37	38 A
Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl
LB01	LB01	LB01	LB02	LB02	LB02	LB03	LB04	LB04	LB04	LB04
b-10 m	20 m	10 m	b-10 m	10 m	5 m	5 m	50 m	30 m	20 m	10 m
2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39
Bot 1	Bot 2	Bot 3	Bot 1	Bot 4	Bot 5	Bot 1	Bot 3	Bot 4	Bot 5	Bot 6

39	41
Chl	Chl
LB04	E1
5 m	20 m
2018-39	2018-39
Bot 7	Bot 2



Chlorophyll Data Sheet

Cruise: 208-39

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Dates of Cruise:

Time and date acetone added: 15:00 25 June

Analyst: Hayleigh

Time and date out of freezer: 12:45 26 June

Time analysis started: 13:50

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.006			
STD			LOW	2-	10.693			
STD			HIGH	4-	57.896			
Blank				6-	0.023	8-	0.022	
5075	LOOP		10	1-	20.991	2-	13.864	
268	LG09		10	3-	9.958	4-	6.071	
269A	LG09		10	5-	27.431	6-	17.611	
5082A	LOOP		10	7-	34.433	8-	21.007	
5083A	LOOP		10	1-	19.182	2-	12.116	
2758 575A	LBP8		10	3-	71.106	4-	40.283	
292	LBP7		10	5-	5.979	6-	4.821	
11999A	SI		10	7-	70.977	8-	39.348	table sample #?
7	HARD59		10	1-	29.349	2-	19.182	
8	HARD59		10	3-	39.265	4-	24.557	
254	LG06		10	5-	26.026	6-	16.390	
256	LG06		10	7-	28.008	8-	17.308	
170B	LC08		10	1-	35.752	2-	20.957	
155B	LC09		10	3-	14.682	4-	10.554	
175B	LC09		10	5-9	87.831	6-	57.750	*Correct 5.
185	LC04		10	7-	52.300	8-	35.919	
196B	LC02		10	1-	20.968	2-	11.764	
5053	LOOP		10	3-	31.345	4-	18.514	
198	EC02		10	5-	15.525	6-	8.842	
500061	LC02	Loop	10	7-	11.750	8-	6.866	"lost few" - Missed Rb
202B	LC01		10	1-		2-	26.387	
207B	LD02		10	3-	39.370	4-	28.300	
204B	LC01		10	5-	276.524	6-	157.761	
214B	LD04		10	7-	26.436	8-	15.554	
Stand-by				1-	0.004			
Std	Low			2-	10.596			
Std	High			4-	58.226			
Blank	by			6-	0.031	8-	0.032	

Chlorophyll Data Sheet

Cruise: 2018-39

Page: 1 of 3

Dates of Cruise:

Time and date acetone added: 10:10 26 JUNE 2018 Analyst: Hayleigh

Time and date out of freezer: 8:00 27 JUNE

Time analysis started: 9:00

* E1
super pigment
Brown

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.006			
STD			LOW	2-	10.915			
STD			HIGH	4-	59.289			
Blank				6-	0.028	8-	0.026	
* 2018-30 1508	42	10	1-	26.266	2-	16.912		-left at RT for 1 1/2 hr
10B	HAROSY	10	3-	39.357	4-	23.831		
18B	JF2	10	5-	203.554	6-	110.257		
23B	LB01	10	7-	162.306	8-	99.749		
26B	LB01	10	1-	128.366	2-	75.471		3XDF
28B	LB02	10	3-	22.244	4-	17.091		
32	LB03	20	5-	146.418	6-	84.882		3XDF
38	LB04	20	7-	133.489	8-	75.497		3XDF
999R	SI	10	1-	75.401	2-	41.426		
275B	LBP8	10	3-	70.472	4-	39.940		
5083B	LOOP	10	5-	19.858	6-	13.720		
5082B	LOOP	10	7-	31.694	8-	19.355		
269B	LG09	10	1-	28.725	2-	18.430		
5075B	LOOP	10	3-	23.449	4-	15.112		
252B	LG06	10	5-	27.273	6-	17.639		
238B	LG04	10	7-	28.373	8-	16.511		
225B	LG02	10	1-	26.699	2-	18.317		
218B	LG01	10	3-	29.935	4-	21.994		TAKE 2nd read.
42	E1	20	5-	176.788	6-	97.409		3XDF
43	E1	20	7-	158.749	8-	91.285		3XDF
44A	E1	20	1-	151.629	2-	87.475		3XDF
45A	LB05	20	3-	152.756	4-	87.847		Disregard first 334
60	LB08	10	5-	16.179	6-	12.798		
54A	LB07	10	7-	61.549	8-	36.002		
Stand-by				1-	0.025			
Std	Low			2-	10.791			
Std	High			4-	58.257			
Blank	by			6-	0.040	8-	0.040	

-Delete
Thum

10 B Chl Haro59 5 m 2018-39 Bot 10	18 B Chl JF2 20 m 2018-39 Bot 7	23 B Chl LB01 20 m 2018-39 Bot 2	26 B Chl LB01 5 m 2018-39 Bot 5	28 B Chl LB02 30 m 2018-39 Bot 2	32 B Chl LB03 5 m 2018-39 Bot 1	38 B Chl LB04 10 m 2018-39 Bot 6	2018-39 SI #999R	275 B Chl LBP8 5 2018-39 Bot 6	5083 B Chl LOOP 2018-39
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5082
Chl
2018-39
LOOP

269 B
Chl
LG09
C Max
2018-39
Bot 7

5075
Chl
2018-39
LOOP

252
Chl
LG06
30
2018-39
Bot 14

238
Chl
LG04
5
2018-39
Bot 9

225
Chl
LG02
20
2018-39
Bot 5

ONT
2018-39
Bot 3
LG01
#2188

42 ZOM
Chl
E1
10 m
2018-39
Bot 3

43 ZOM
Chl
E1
5 m
2018-39
Bot 4

44 A
Chl
E1
0 m
2018-39
Bot 5

45 A
Chl
LB05
5 m
2018-39
Bot 1

60
Chl
LB08
2018-39
Bot 6

54 A
Chl
LB07
5 m
2018-39
Bot 1

Chlorophyll Data Sheet

Cruise: 2018-39

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20ml:
53 LB06
52

Dates of Cruise:

Time and date acetone added: 11:50 26 June

Analyst: Hayleigh

Time and date out of freezer: 9:55 27 June

Time analysis started: 10:55

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.025			
STD			LOW	2-	10.791			
STD			HIGH	4-	58.257			
Blank				6-	0.040	8-	0.040	
53	LB06	304	20	1-	123.701	2-	69.308	3X DF
52	LB06		20	3-	168.027	4-	92.835	3X DF
51	LB06		10	5-	112.025	6-	66.220	
50A	LB06		10	7-	49.014	8-	32.669	
49	LB06		10	1-	27.788	2-	20.574	
82	LB11		10	3-	18.455	4-	14.353	
73	LB09		10	5-	59.750	6-	36.029	
72	LB09		10	7-	157.729	8-	96.475	
71B	LB09		10	1-	42.920	2-	30.614	
70	LB09		10	3-	20.627	4-	16.308	
65	LB08		10	5-	14.314	6-	8.114	
63B	LB08		10	7-	29.073	8-	17.242	
62	LB08		10	1-	96.952	2-	59.937	
61	LB08		10	3-	21.194	4-	15.653	
5032A	LB11 LOOP		10	5-	20.250	6-	11.712	
63A	LB08		10	7-	37.713	8-	21.877	
86	LB11		10	1-	19.529	2-	11.386	
85	LB11		10	3-	24.672	4-	14.193	
84A	LB11		10	5-	41.546	6-	26.602	
83	LB11		10	7-	132.261	8-	78.977	
75B	LB10		10	1-	185.928	2-	105.412	
74	LB09		10	3-	35.932	4-	22.131	
5035A	LOOP		10	5-	25.910	6-	15.686	
103B	LB13		10	7-	41.591	8-	24.217	
Stand-by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

53 Chl LB06 5 m 2018-39 Bot 8	52 Chl LB06 10 m 2018-39 Bot 7	51 Chl LB06 20 m 2018-39 Bot 6	50 A Chl LB06 30 m 2018-39 Bot 5	49 Chl LB06 50 m 2018-39 Bot 4	82 Chl LB11 50 m 2018-39 Bot 7	73 Chl LB09 10 m 2018-39 Bot 8	72 Chl LB09 20 m 2018-39 Bot 7	B 71 Chl LB09 30 m 2018-39 Bot 6	70 Chl LB09 50 m 2018-39 Bot 5	65 Chl LB08 5 m 2018-39 Bot 11
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63 Chl LB08 5 m 2018-39 Bot 9	62 Chl LB08 5 m 2018-39 Bot 8	61 Chl LB08 5 m 2018-39 Bot 7	50 32 Chl LB08 5 m 2018-39 Bot 7	63A Chl LB08 5 m 2018-39 Bot 9	86 Chl LB11 5 m 2018-39 Bot 11	85 Chl LB11 10 m 2018-39 Bot 10	84 A Chl LB11 20 m 2018-39 Bot 9	83 Chl LB11 30 m 2018-39 Bot 3	75 Chl LB10 5 m 2018-39 Bot 1	74 Chl LB09 5 m 2018-39 Bot 9
--	--	--	---	---	---	--	---	---	--	--

5035
CHL A
Loop
5 m
2018-39
S

103
B Chl
LB13
5 m
2018-39
Bot 1

Chlorophyll Data Sheet

Cruise: 2018-39

Page: 3 of 3

Dates of Cruise:

Time and date acetone added: 15:00

26 JUNE

Analyst: Hayleigh

Time and date out of freezer: 13:00

27 JUNE.

Time analysis started: 13:50

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.019			
STD			LOW	2-	10.679			
STD			HIGH	4-	57.986			
Blank				6-	0.032	8-	0.029	
10								
101	LB12		10	1-	40.573	2-	24.068	
100	LB12		10	3-	103.496	4-	65.152	
99A	LB12		10	5-	28.510	6-	20.085	
117	LB14		10	7-	10.683	8-	8.082	
122	LB15		10	1-	21.153	2-	12.641	
121	LB14		10	3-	83.423	4-	48.299	
120A	LB14		10	5-	102.133	6-	57.911	W
119	LB14		10	7-	146.597	8-	83.154	3XDF
118	LB14		10	1-	42.474	2-	30.066	
5045 A	LOOP LC11		10	3-	15.494	4-	9.786	
142	LC11		10	5-9	13.528	6-	8.052	TAKE 2nd Read.
141 A	LC11		10	7-	11.533	8-	7.333	
140	LC11		10	1-	29.932	2-	18.677	
139	LC11		10	3-	36.995	4-	24.245	
138	LC11		10	5-	19.587	6-	16.019	
5041 A	UW		10	7-	42.252	8-	25.788	*had 2 Filters
123B	LB16		10	1-	18.806	2-	11.823	
123A	LB16		10	3-	17.797	4-	10.814	
98A	LB12		10	5-	11.719	6-	8.898	
102	LB12		10	7-	20.292	8-	11.629	
313A	LBP5		10	1-	14.270	2-	10.329	
312	LBP5		10	3-	5.175	4-	4.770	
5088A	LOOP LBP7		10	5-	41.537	6-	24.613	
297	LBP7		10	7-	42.979	8-	25.727	
Stand-by				1-	0.018			
Std	Low			2-	10.635			
Std	High			4-	57.868			
Blank	by			6-	.000	8-	.000	New Culture + (2e) That's why 0.

101 A Chl LB12 10 m 2018-39 Bot 15	100 A Chl LB12 20 m 2018-39 Bot 14	99 A Chl LB12 30 m 2018-39 Bot 13	117 Chl LB14 50 m 2018-39 Bot 14	122 A Chl LB15 5 m 2018-39 Bot 1	121 Chl LB14 5 m 2018-39 Bot 18	120 A Chl LB14 10 m 2018-39 Bot 17	119 Chl LB14 20 m 2018-39 Bot 16	118 Chl LB14 30 m 2018-39 Bot 15	5045 CHL 2018-39 LOOP LC11	142 Chl LC11 5 18-39 Bot 19
141 A Chl LC11 10 18-39 Bot 18	140 Chl LC11 20 18-39 Bot 17	139 Chl LC11 30 18-39 Bot 16	138 Chl LC11 50 18-39 Bot 15	5041A CHL UN 2018-39	123 B Chl LB16 5 m 2018-39 Bot 1	123 A Chl LB16 5 m 2018-39 Bot 1	98A Chl LB12 50 m 2018-39 Bot 12	102 Chl LB12 5 m 2018-39 Bot 16	X 313A Chl LBP5 2018-39 Bot 16	312 Chl LBP5 50 2018-39 Bot 15
5088 CHL A 2018-39 LOOP LBP7 5m	297 Chl LBP7 5 2018-39 Bot 21									



Chlorophyll Data Sheet

Cruise: 201839

Page: 1 of 2

Dates of Cruise:

Time and date acetone added: 10:35 27 JUNE

Analyst: Hayleigh

Time and date out of freezer: 8:35 28 JUNE

Time analysis started: 9:30

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.023			
STD			LOW	2-	9.662			lower, usually ~10.6
STD			HIGH	4-	58.733			✓
Blank				6-	0.004	8-		
295	LBP 7	304	10	1-	50.572	2-	29.824	
294 A	LBP 7	304	10	3-	48.932	4-	29.014	
293	LBP 7		10	5-	11.718	6-	8.469	
324 A	LBP 3		10	7-	26.140	8-	20.815	
325	LBP 3		10	1-	63.138	2-	38.404	
323	LBP 3		10	3-	20.547	4-	16.838	
327	LBP 3		10	5-	44.233	6-	25.851	
322	LBP 5		10	7-	7.050	8-	6.495	
5094 A	LBP 3		10	1-	46.141	2-	27.224	
316	LBP 5		10	3-	51.859	4-	30.883	
315	LBP 5		10	5-	19.029	6-	13.399	
5099A	L		10	7-	72.299	8-	41.062	
50103 A	LOOP		10	1-	35.105	2-	20.949	
344 A	CS00		10	3-	5.484	4-	4.161	
345	CS00		10	5-	15.344	6-	10.350	
346	CS00		10	7-	22.754	8-	15.108	
347	CS00		10	1-	31.824	2-	18.625	
349	CS00		10	3-	29.593	4-	17.707	
367	CS02		10	5-	11.066	6-	7.541	
368	CS02		10	7-	24.052	8-	15.259	
369	CS02		10	1-	51.797	2-	29.365	
370 A	CS02		10	3-	56.474	4-	32.176	
371	CS02		10	5-	51.452	6-	29.500	
375	CS04		10	7-	22.466	8-	17.262	
377 *	CS04		10	1	56.355	2	32.781	
376 A *	CS04		10	3	40.873	4	25.103	
Stand-by				1-	0.0019.			
Std	Low			2-	10.632			
Std	High			4-	57.860			
Blank	by			6-	0.002	8-	0.004	

295	294A	293	A 324	325	323.	327	322	5094 2018-39 CH1 A LBP3 LOOP	316	315
Ch1	Ch1	Ch1	Ch1	Ch1	Ch1	Ch1	Ch1		Ch1	Ch1
LBP7	LBP7	LBP7	LBP3	LBP3	LBP3	LBP3	LBP3		LBP5	LBP5
10	20	30	20	10	30	5	50		5	10
2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39		2018-39	2018-39
Bot 19	Bot 18	Bot 17	Bot 8	Bot 9	Bot 7	Bot 11	Bot 6		Bot 19	Bot 18

5099A	50103	344	345	346	347	349	367.	368	369	370A
CH2	CHLA	Ch1A	Ch1	Ch1	Ch1	Ch1	Ch1	Ch1	Ch1	Ch1
2018-39	2018-39	CS00	CS00	CS00	CS00	CS00	CS02	CS02	CS02	CS02
	LOOP	50	30	20	10	5	50	30	20	10
		2018-39	2018-39	2018-29	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39
		Bot 16	Bot 17	Bot 18	Bot 19	Bot 21	Bot 16	Bot 17	Bot 18	Bot 19

371	375	377	376A
Ch1	Ch1	Ch1	Ch1
CS02	CS04	CS04	CS04
5	50	20	30
2018-39	2018-39	2018-39	2018-39
Bot 20	Bot 3	Bot 5	Bot 4

New Acetone 90%
Batch LOT 181819
A929-42

Chlorophyll Data Sheet

Cruise: 2018-39

Page: 2 of 2

Date acetone added: 27 June 2018

Time acetone added: 15:00

Date of analysis: 28 June 2018
13:00 14:00

Analyst: Hayleigh

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.019			
STD			LOW	2-	10.632			
			HIGH	4-	57.860			
Blank				6-	0.002		0.004	
405A	SS2	304	10	1-	45.146	2-	25.871	
406A	SS2		10	3-	55.235	4-	31.705	
378	CS04		10	5-	114.815	6-	60.561	Take 2nd read.
375	CS04		10	7-	114.535	8-	62.186	
386	CS06		10	1-	175.157	2-	97.808	
381	CS06		10	3-	57.682	4-	43.586	
382	CS06		10	5-	53.764	6-	34.795	
383A	CS06		10	7-	234.196	8-	135.524	
384	CS06		10	1-	188.758	2-	106.745	
50122A	LOOP		10	3-	116.173	4-	66.115	
397	CS09		10	5-	55.803	6-	32.297	
396	CS09		10	7-	34.178	8-	19.736	
395	CS09		10	1-	15.809	2-	10.357	
394A	CS09		10	3-	15.296	4-	10.667	
393	CS09		10	5-	15.875	6-	12.273	
5140A	LOOP		10	7-	20.561	8-	11.910	
399A	SS5		10	1-	19.376	2-	13.570	
400A	SS5		10	3-	24.151	4-	14.272	
401A	SS5		10	5-	24.406	6-	13.882	
402A	SS3		10	7-	16.581	8-	9.472	
403A	SS3		10	1-	20.254	2-	11.133	
404A	SS3		10	3-	18.671	4-	10.333	
415A	SS3		10	5-	116.619	6-	64.632	
5152A	LOOP		10	7-	15.716	8-	87.789	
Blank	Blank			1-	0.016			
Std	Low			2-	10.703			
Std	High			4-	57.913			
Stand-	by			6-	0.003		0.001	

379

← New HCL

405A	406A	378	379	386	381	382	383A	384	50122	397
Ch1	Ch1	Ch1	Ch1	Ch1	Ch1	Ch1	Ch1	Ch1	CHLA	Ch1
SS2	SS2	CS04	CS04	CS06	CS06	CS06	CS06	CS06	2018-39	CS09
20	10	10	5	5	50	30	20	10	LOOP	5
2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39		2018-39
Bot 1	Bot 2	Bot 6	Bot 7	Bot 7	Bot 2	Bot 3	Bot 4	Bot 5		Bot 11

396	395	394A	393	5140A	399A	400A	401A	402A	403A	404A
Ch1	Ch1	Ch1	Ch1	CHL	Ch1	Ch1	Ch1	Ch1	Ch1	Ch1
CS09	CS09	CS09	CS09	LOOP	SS5	SS5	SS5	SS3	SS3	SS3
10	20	30	50	2018-39	20	10	5	20	10	5
2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39
Bot 10	Bot 9	Bot 8	Bot 7	Bot 1	Bot 2	Bot 3	Bot 1	Bot 2	Bot 3	

415A	5152A
Ch1	CHL
JS	LOOP
20	
2018-39	2018-39
Bot 8	

Chlorophyll Data Sheet

Cruise: 2018-39

Page: 1 of 2

Date acetone added: 28 JUNE 2018

Time acetone added: 10:10

Date of analysis: 29 June 2018
8:00 9:10

Analyst: Hayleigh

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.018			
STD			LOW	2-	10.865			
			HIGH	4-	59.307			
Blank				6-	0.003		0.003	
429	16	304	10	1-	45.063	2-	26.949	
428	16		10	3-	44.254	4-	26.985	
427A	16		10	5-	33.484	6-	21.105	
426	16		10	7-9	34.731	8-	21.651	TAKE 2nd read.
418	JS		10	1-	214.318	2-	116.972	
417	JS		10	3-	203.048	4-	110.379	
416	JS		10	5-	179.739	6-	98.769	
407	SS2		10	7-	71.368	8-	39.993	
472	38		10	1-	46.249	2-	29.186	
435A	12		10	3-	27.043	4-	17.207	
434	12		10	5-	12.285	6-	7.846	
5160A	LOOF		10	7-	68.797	8-	38.606	
433A	14		10	1-	211.815	2-	112.018	
432A	14		10	3-	305.423	4-	160.619	
431A	14		10	5-	136.226	6-	74.838	
430	16		10	7-	48.304	8-	29.209	
460A	28		20	1-	41.947	2-	23.743	
485	42		20	3-	174.367	4-	92.614	
484	42		10	5-	104.430	6-	58.330	
483A	42		10	7-	32.074	8-	20.109	
471	GE01		10	1-	122.129	2-	67.472	
470A	GE01		10	3-	148.244	4-	83.554	
474	38		10	5-	68.831	6-	36.840	
473A	38		10	7-	64.141	8-	36.253	
Blank	Standby			3-1	0.017			
Std	Low			5-2	10.176			
Std	High			7-4	58.676			
Stand-	by blank			8-6	0.004	8-	0.004	

429	428	427 A	426	418	417	416	407 A	472	435 A	434
Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl
16	16	16	16	JS	JS	JS	SS2	38	12	12
5	10	20	30	0	5	10	5	20 m	20	0
2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39
Bot 10	Bot 9	Bot 8	Bot 7	Bot 11	Bot 10	Bot 9	Bot 3	Bot 1	Bot 2	Bot 1

5160 CHLA 2018-39 LOOP	433 A	432 A	431 A	430	20ML 460 A	20ML 485	484	483 A	471	470 A
	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl	Chl
	14	14	14	16	28	42	42	42	GEO1	GEO1
	0	10	20	0	0	0 m	5 m	10 m	0 m	5 m
	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39	2018-39
	Bot 3	Bot 2	Bot 1	Bot 11	Bot 3	Bot 11	Bot 10	Bot 9	Bot 11	Bot 10

474	473 A
Chl	Chl
38	38
0 m	10 m
2018-39	2018-39
Bot 3	Bot 2

20ML:
445
455
456A

Chlorophyll Data Sheet

Cruise: 2018-89

Page: 2 of 2

Date acetone added: 28 June

Time acetone added: 12:30

Date of analysis: 29 June

Analyst: Hayleigh

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.017			
STD			LOW	2-	10.759			
			HIGH	4-	58.676			
Blank				6-	0.004		0.004	
457	22	304	10	1-	216.455	2-	117.682	
458	28		10	3-	176.174	4-	198.077	
459	28		10	5-	149.615	6-	81.721	
481	42		10	7-	20.705	8-	14.002	
482	42		10	1-	34.350	2-	21.903	
467	GE01		10	3-	43.377	4-	28.317	
468	GE01		10	5-	100.509	6-	58.703	
469	GE01		10	7-9	145.281	8-	81.351	TAKE 2nd read.
441A	CPF1		10	1-	19.009	2-	14.801	
456A	22		20	3-	253.071	4-	141.393	
455	22		20	5-	287.017	6-	154.620	
454	22		10	7-	201.826	8-	112.585	
453	22		10	1-	52.648	2-	32.875	
446	24		10	3-	139.267	4-	74.337	
445A	24		20	5-	118.856	6-	63.257	3XDF
444	24		10	7-	103.728	8-	74.024	
437	12		10	1-	4.629	2-	3.956	
438	20		10	3-	22.512	4-	15.736	
139	CPF2		10	5-	34.277	6-	21.187	*Delete Dup
440A	CPF2		10	7-	13.394	8-	8.534	
443	CPF1		10	1-	89.782	2-	48.123	
442	CPF1		10	3-	84.874	4-	49.394	2018-93
* 2018-93	11B QCSD-12		10	5-	237.856	6-	137.096	2018-93
* 2018-93	5A QCSD-01		10	7-	66.320	8-	42.755	
Blank				3-	0.016			
Std	Low			5-	10.751			
Std	High			7-	58.626			
Stand-	by			8-	0.005	0.005		

457 Ch1 22 0	458 Ch1 28 20 m	459 Ch1 28 10 m	481 Ch1 42 30 m	482 Ch1 42 20 m	467 Ch1 GEO1 30 m	468 Ch1 GEO1 20 m	469 Ch1 GEO1 10 m	441A Ch1 CPF1 20	20ml 456A Ch1 22 5	20ml 455 Ch1 22 10
2018-39 Bot 11	2018-39 Bot 1	2018-39 Bot 2	2018-39 Bot 7	2018-39 Bot 8	2018-39 Bot 7	2018-39 Bot 8	2018-39 Bot 9	2018-39 Bot 1	2018-39 Bot 10	2018-39 Bot 9

454 Ch1 22 20	453 Ch1 22 30	446 Ch1 24 0	20ml 445A Ch1 24 10	444 Ch1 24 20	437 Ch1 12 Bot-10	438 Ch1 CPF2 20	439 Ch1 CPF2 10	440A Ch1 CPF2 0	443 Ch1 CPF1 0	442 Ch1 CPF1 10
2018-39 Bot 8	2018-39 Bot 7	2018-39 Bot 3	2018-39 Bot 2	2018-39 Bot 1	2018-39 Bot 4	2018-39 Bot 1	2018-39 Bot 2	2018-39 Bot 3	2018-39 Bot 3	2018-39 Bot 2

Chlorophyll Data Sheet

Cruise: 2018-39

Page: 1 of 2

Date acetone added: 10 July 18 1252

Time acetone added:

Date of analysis: out of freezer 11 July 1030
start analysis " 1145

Analyst: Tamarz

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.015			
STD			LOW	2-	10.712			
			HIGH	4-	58.218			
Blank				6-	-0.001	taud 8	0.000	
405B	SS2	304	10	1-	44.321	2-	23.878	no DF (24.804)
406B	SS2		10	3-	53.312	4-	29.987	no DF
407B	SS2		10	5-	70.643	6-	39.206	no DF
427B	16		10	7-	34.569	8-	21.204	no DF
431B	14		10	1-	148.322	2-	80.478	no DF
432B	14		10	3-	288.935	4-	151.744	no DF
433B	14		10	5-	207.358	6-	110.376	no DF
5160B	LOOP		10	7-	67.098	8-	37.377	no DF
415B	JS		10	1-	123.103	2-	68.131	no DF
400B	SS5		10	3-	24.198	4-	13.940	no DF
414	JS		10	5-	96.733	6-	53.783	no DF
5152B	LOOP		10	7-	154.865	8-	85.987	no DF
404B	SS3		10	1-	20.110	2-	11.069	no DF
403B	SS3		10	3-	18.201	4-	10.010	no DF
402B	SS3		10	5-	14.377	6-	8.324	no DF
401B	SS5		10	7-	23.277	8-	13.246	no DF
399B	SS5		10	1-	19.197	2-	12.896	no DF
5140B	LOOP		10	3-	20.585	4-	11.508	no DF
394B	CS09		10	5-	16.967	6-	10.664	no DF
50122	LOOP		10	7-	111.631	8-	61.527	no DF
383B	CS06		10	1-	215.537	2-	122.271	no DF
376B	CS04		10	3-	41.753	4-	25.288	no DF
370B	CS02		10	5-	56.882	6-	31.758	no DF
344B	CS00		10	7-	6.980	8-	4.882	no DF
Blank				3-				
Std	Low			5-				
Std	High			7-				
Stand-	by			8-				

put in manually:

50856 LBPT LOOP 10
(5088?)

44.549

25.508

no DF

405B Ch1 SS2 20 2018-39 Bot 1	406B Ch1 SS2 10 2018-39 Bot 2	407B Ch1 SS2 5 2018-39 Bot 3	427B Ch1 16 20 2018-39 Bot 8	431B Ch1 14 20 2018-39 Bot 1	432B Ch1 14 10 2018-39 Bot 2	433B Ch1 14 0 2018-39 Bot 3	5160 CHLB 2018-39 LOOP
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415B Ch1 JS 20 2018-39 Bot 8	400B Ch1 SS5 10 2018-39 Bot 2	414 Ch1 JS 30 2018-39 Bot 7	5152B CHLB LOOP 2018-39	404B Ch1 SS3 5 2018-39 Bot 3	403B Ch1 SS3 10 2018-39 Bot 2	402B Ch1 SS3 20 2018-39 Bot 1	401B Ch1 SS5 5 2018-39 Bot 3
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399B Ch1 SS5 20 2018-39 Bot 1	5140B CHLB LOOP 2018-39	394B Ch1 CS09 30 2018-39 Bot 8	50122 CHLB 2018-39 LOOP	383B Ch1 CS06 20 2018-39 Bot 4	376B Ch1 CS04 30 2018-39 Bot 4	370B Ch1 CS02 10 2018-39 Bot 19	344B Ch1 CS00 50 2018-39 Bot 16
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5088
CHLB
2018-39
LOOP
LBP7
5m

5041
no filter

20ml: 456B
460B

Chlorophyll Data Sheet

Cruise: 2018-39

Page: 2 of 2

Date acetone added: 10 July 18 1435

Time acetone added:

Date of analysis: 11 July 18 1241

Analyst: Tamara

started analysis 11 July 18 1348

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.014			
STD			LOW	2-	10.659			
			HIGH	4-	58.107			
Blank				6-	0.002	taud		
456B	22	304	20	1-	260.485	2-	140.094	no DF
50103B	LOOP		10	3-	32.110	4-	18.977	no DF
5099B	LOOP		10	5-	71.544	6-	39.819	no DF
5094B	LBP3 LOOP		10	7-	42.441	8-	24.548	no DF
324B	LBP3		10	1-	33.898	2-	23.593	no DF
294B	LBP7		10	3-	47.927	4-	28.246	no DF
435B	12		10	5-	23.007	6-	15.069	no DF
440B	CPF2		10	7-	14.092	8-	8.760	no DF
441B	CPF1		10	1-	20.466	2-	14.918	no DF
445B	24		10	3-	232.502	4-	122.120	DF=3 10ml + 5ml sa
460B	28		20	5-	42.974	6-	24.004	no DF
483B	42		10	7-	28.055	8-	17.681	no DF
470B	GED1		10	1-	133.637	2-	74.591	no DF
473B	38		10	3-	64.344	4-	35.970	no DF
				5-		6-		
				7-		8-		
				1-		2-		
				3-		4-		
				5-		6-		
				7-		8-		
				1-		2-		
				3-		4-		
				5-		6-		
				7-		8-		
Blank				3-	0.015			
Std	Low			5-	10.707			
Std	High			7-	58.002			
Stand-	by			8-	0.000	taud	0.000	

std by

blank

456B Ch1 22 5 2018-39 Bot 10	50103 CHLB 2018-39 LOOP	5099B CHL 2018-39	5094B 2018-39 CH1 LBP3 LOOP	324 Ch1 LBP3 20 2018-39 Bot 8	294B Ch1 LBP7 20 2018-39 Bot 18	435B Ch1 12 20 2018-39 Bot 2	440B Ch1 CPF2 0 2018-39 Bot 3
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441B Ch1 CPF1 20 2018-39 Bot 1	445B Ch1 24 10 2018-39 Bot 2	460B Ch1 28 0 2018-39 Bot 3	483B Ch1 42 10 m 2018-39 Bot 9	470B Ch1 GEO1 5 m 2018-39 Bot 10	473B Ch1 38 10 m 2018-39 Bot 2
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5041
CHL
UW ← no filter
2018-39

Chlorophyll Data Sheet

Cruise: 2018-39

Page: 1 of 1

Date acetone added: 11 July 18 1143

Time acetone added:

out of freezer Date of analysis: 0938 12 July 18
started analysis 1046 12 July 18

Analyst: Tamara

20 ml

44B

45B

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.017			
STD			LOW	2-	10.741			
			HIGH	4-	58.344			
Blank				6-	-0.0000		-0.000	
122B	LB15	304	10	1-	23.188	2-	13.761	no DF
120B	LB14		10	3-	93.452	4-	51.825	no DF
141B	LC11		10	5-	13.618	6-	8.181	no DF
5032B	LOOP		10	7-	18.242	8-	10.699	no DF
313B	LB05		10	1-	14.483	2-	10.252	DF=3, 10ml + 5ml sa
44B	E1		20	3-	151.662	4-	84.728	↓
34B	LB07		10	5-	60.590	6-	34.964	no DF
71A	LB09		10	7-	42.461	8-	29.876	no DF
50B	LB06		10	1-	78.860	2-	47.316	no DF
45B	LB05		20	3-	158.137	4-	87.180	no DF
84B	LB11		10	5-	38.521	6-	24.077	no DF
75A	LB10		10	7-	190.214	8-	105.350	no DF
103A	LB13		10	1-	44.272	2-	26.267	no DF
5035B	LOOP		10	3-	34.189	4-	19.786	no DF
99B	LB12		10	5-	28.224	6-	19.952	no DF
				7-		8-		
				1-		2-		
				3-		4-		
				5-		6-		
				7-		8-		
				1-		2-		
				3-		4-		
				5-		6-		
				7-		8-		
Blank				3-	0.014			
Std	Low			5-	10.630			
Std	High			7-	57.736			
Stand-	by			8-	-0.002		-0.000	

LB11
no DF

standby

blank

122
B Ch1
LB15
5 m
2018-39
Bot 1

120
B Ch1
LB14
10 m
2018-39
Bot 17

141 B
Ch1
LB11
10
18-39
Bot 18

5032 B
Ch1
LB11
2018-39
Loop

313 B
Ch1
LBP5
20
2018-39
Bot 16

44 B
Ch1
E1
0 m
018-39
Bot 5

54 B
Ch1
LB07
5 m
2018-39
Bot 1

A 71
Ch1
LB09
30 m
2018-39
Bot 6

50 B
Ch1
LB06
30 m
2018-39
Bot 5

45
40 B
Ch1
LB05
5 m
2018-39
Bot 1

84 B
Ch1
LB11
20 m
2018-39
Bot 9

75
Ch1 A
LB10
5 m
2018-39
Bot 1

103
A Ch1
LB13
5 m
2018-39
Bot 1

5035 B
Ch1
Loop
2018-39

99 B
Ch1
LB12
30 m
2018-39
Bot 13