

20 ml

Chlorophyll Data Sheet

Cruise: 2017-06

Page: 1 of 2

Dates of Cruise:

Time and date acetone added: July 10, 2017. 955am Analyst: SM + MM

Time and date out of freezer: 8am July 11, 2017

Time analysis started: 9am July 11, 2017

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.023			
STD			LOW	2-	11.377			
STD			HIGH	4-	61.843			
Blank				6-	-0.021	8-	-0.022	
582	P210	3000	10	1-	15.410	2-	9.759	NO DF
583B	P210			3-	11.807	4-	7.293	
584B	P210			5-	11.988	6-	7.353	
591A	P210			7-	8.049	8-	4.659	
590	P210			1-	8.041	2-	4.664	
589B	P210			3-	8.069	4-	4.617	
588	P210			5-	8.539	6-	4.909	
589A	P210			7-	7.950	8-	4.532	
587	P210			1-	9.060	2-	5.241	
586A	P210			3-	10.388	4-	6.139	
585A	P210			5-	11.214	6-	6.763	
591B	P210			7-	8.150	8-	4.728	
537	P210			1-	8.385	2-	4.851	
592	P210			3-	8.244	4-	4.749	
535	P210			5-	8.918	6-	5.124	
538	P210			7-	8.831	8-	5.187	
539	P210			1-	8.780	2-	5.113	
540	P210			3-	12.898	4-	8.196	
5106B	P210-Union			5-	7.099	6-	4.159	
5107A	107			7-	8.907	8-	5.055	
5102A	Loop			1-	5.784	2-	3.417	
5110B	Loop			3-	13.154	4-	7.545	
5111B	Loop			5-	16.402	6-	9.561	
5114B	Loop	✓	✓	7-	8.231	8-	4.948	✓
Stand-by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

582	583B	584B	591A	590	589B	588	589A	587	586A	585A
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
P26	P26	P26	P26	P26	P26	P26	P26	P26	P26	P26
75 m	60 m	50 m	5 m	10 m	15 m	20 m	15 m	25 m	30 m	40 m
2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06
Bot 5	Bot 6	Bot 7	Bot 14	Bot 13	Bot 12	Bot 11	Bot 12	Bot 10	Bot 9	Bot 8

591B	537	592	535	538	539	540	5106B	5107A	5108A	5110B
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
P26	P26	P26	P26	P26	P26	P26	P26-Union	Loop 107	Loop	Loop
5 m	55%	0 m	100%	30%	15%	1%	LOOP	207-d	207-d	207-d
2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06
Bot 14	Bot 19	Bot 13	Bot 17	Bot 20	Bot 21	Bot 22	Bot 1			

5111B	5114B
CHL	CHL
Loop	Loop 5114
	LOOP
2017-06	2017-06
	Bot 1

Chlorophyll Data Sheet

Cruise: 2017-06

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Dates of Cruise:

Time and date acetone added: 2pm July 10, 2017 Analyst: SM+M+H

Time and date out of freezer:

Time analysis started:

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.026			
STD			LOW	2-	11.242			
STD			HIGH	4-	61.177			
Blank				6-	-0.023	8-	-0.024	
392	P20	306	10	1-	6.059	2-	3.328	no DF
390	P20			3-	5.968	4-	3.287	
5070B	P20			5-	5.94	6-	3.362	
436	P20			7-	6.226	8-	3.956	
437	P20			1-	9.55	2-	6.308	
438B	P20			3-	16.371	4-	10.187	
439B	P20			5-	13.429	6-	8.254	
440A	P20			7-	11.667	8-	7.052	
441A	P20			1-	8.78	2-	5.024	
442	P20			3-	8.417	4-	4.751	
444A	P20			5-	6.517	6-	3.638	
445	P20			7-	6.073	8-	3.321	
446A	P20			1-	5.775	2-	3.131	
447	P20			3-	6.397	4-	3.439	
457B	P21			5-	6.058	6-	3.273	
474B	P22			7-	7.272	8-	4.622	
517A	P25			1-	7.281	2-	4.103	
5082B	LOOP-19			3-	7.315	4-	4.188	
493A	P24			5-	6.31	6-	3.555	
5078A	LOOP			7-	5.889	8-	3.384	
476A	P23			1-	5.864	2-	3.333	
519A	P35			3-	7.269	4-	4.192	
5087B	P26			5-	8.418	6-	4.949	
581	P26	✓	✓	7-	7.025	8-	4.578	✓
Stand-by				1-	-0.026			
Std	Low			2-	11.269			
Std	High			4-	60.602			
Blank	by			6-	-0.019	8-	-0.020	

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Chlorophyll Data Sheet

Cruise: 2017-06

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Dates of Cruise:

Time and date acetone added: 10am 11 July 2017 Analyst: SM+MH

Time and date out of freezer: 8am 12 July 2017

Time analysis started: 9am

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.022			
STD			LOW	2-	11.341			
STD			HIGH	4-	61.318			
Blank				6-	-0.020	8-	-0.021	
443	P20	306	10	1-	7.448	2-	4.159	No DF
441B	P20			3-	9.099	4-	5.288	
440B	P20			5-	7.001	6-	6.991	
444B	P20			7-	6.227	8-	3.497	
446B	P20			1-	5.852	2-	3.192	
457A	P21			3-	6.133	4-	3.347	
474A	P22			5-	7.272	6-	4.013	
517B	P25			7-	7.542	8-	4.298	
5032A	loop-136			1-	7.378	2-	4.213	
493B	P24			3-	6.361	4-	3.576	
5078B	loop			5-	6.106	6-	3.519	
476B	P23			7-	5.918	8-	3.323	
519B	P35			1-	7.293	2-	4.161	
5087A	P26			3-	8.564	4-	4.977	
583A	P26			5-	11.780	6-	7.337	
584A	P26			7-	11.385	8-	7.024	
585B	P26			1-	11.467	2-	6.962	
586B	P26			3-	10.254	4-	6.137	
5106A	P26-Union			5-	7.230	6-	4.222	
567B	Cun1107			7-	8.918	8-	5.103	
511A	loop			1-	15.808	2-	9.105	
5110A	loop			3-	13.398	4-	7.715	
5108B	loop			5-	5.912	6-	3.515	
5114A	loop 5114	✓	✓	7-	8.865	8-	5.371	✓
Stand-by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

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Chlorophyll Data Sheet

Cruise: 2017-06

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Dates of Cruise:

Time and date acetone added: 2pm 11 July, 2017 Analyst: SM+MH

Time and date out of freezer: 12pm 12 July, 2017

Time analysis started: 1pm

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	- 0.025			
STD			LOW	2-	11.242			
STD			HIGH	4-	61.025			
Blank				6-	- 0.019	8-	- 0.021	
290A	P15	306	10	1-	11.754	2-	6.559	no DF
334	P16			3-	10.245	4-	5.732	
335	P16			5-	8.607	6-	4.884	
336	P16			7-	10.072	8-	5.691	
337	P16			1-	16.924	2-	10.695	
351B	P16			3-	17.13	4-	9.99	
282B	P14			5-	14.768	6-	8.374	
347	P16			7-	10.745	8-	7.026	
348B	P16			1-	15.994	2-	10.436	
254B	P16			3-	13.293	4-	7.711	
352	P16			5-	17.221	6-	9.98	
-	-			7-	16.016	8-	9.795	
349A	P16			1-	16.5	2-	10.46	
356B	P16			3-	11.782	4-	6.806	
280B	P13			5-	19.055	6-	10.977	
357	P16			7-	11.913	8-	6.621	
355	P16			1-	10.843	2-	6.141	
364B	P17			3-	9.541	4-	5.266	
378B	P18			5-	9.763	6-	5.316	
393	P20			7-	7.647	8-	4.020	
5054B	P16			1-	10.044	2-	5.779	
395	P20			3-	6.858	4-	4.413	
-	-			5-	4.139	6-	4.26	
394	P20			7-	15.574	8-	9.718	✓
380A	P19			1-	5.239	2-	2.963	
348A	P16			3-	16.247	4-	10.801	
Stand-by				1-	- 0.023			
Std	Low			2-	10.188			
Std	High			4-	61.032			
Blank	by			6-	- 0.022	8-	- 0.025	

290 A	334	335	336	337	351 B	282 B	347	348 B	354 B	352
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
P15	P16	P16	P16	P16	P16	P14	P16	P16	P16	P16
5 m	55%	30%	15%	1%	30 m	5 m	75 m	60 m	15 m	25 m
2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06
Bot 1	Bot 19	Bot 20	Bot 21	Bot 22	Bot 9	Bot 1	Bot 5	Bot 6	Bot 12	Bot 10

349 A	356 B	280 B	357	355	364 B	378 B	393	5054 B	395	394
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	Chl	CHL	CHL
P16	P16	P13	P16	P16	P17	P18	P20	P16	P20	P20
50 m	5 m	5 m	0 m	10 m	5 m	5 m	30%	LOOP	1%	15%
2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06	2017-06
Bot 7	Bot 14	Bot 1	Bot 15	Bot 13	Bot 1	Bot 13	Bot 20	Bot 1	Bot 22	Bot 21

380 A	348 A
CHL	CHL
P19	P16
5 m	60 m
2017-06	2017-06
Bot 1	Bot 6

Chlorophyll Data Sheet

Cruise: 2017-010

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Dates of Cruise:

Time and date acetone added: 10am 12 July 2017

Analyst: MFL+SM

Time and date out of freezer: 8am 13 July 2017

Time analysis started: 9am 13 July 2017

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.024			
STD			LOW	2-	11.355			
STD			HIGH	4-	101.464			
Blank				6-	-0.016	8-	-0.017	
205B	P12	306	10	1-	17.953	2-	10.092	No DF
206	P12			3-	17.013	4-	9.479	
277	P12			5-	15.786	6-	8.595	
278	P12			7-	15.715	8-	9.807	
276	P12			1-	110.5766	2-	9.307	
273	P12			3-	19.030	4-	10.644	
275	P12			5-	18.568	6-	10.530	
280A	P13			7-	18.657	8-	10.721	
282A	P14			1-	14.800	2-	8.4166	
290B	P15			3-	12.523	4-	6.790	
351A	P16			5-	17.051	6-	10.064	
356A	P16			7-	11.441	8-	6.478	
349B	P16			1-	16.744	2-	10.720	
353	P16			3-	15.180	4-	8.634	
350A	P16			5-	19.001	6-	11.794	
346	P16			7-	2.378	8-	1.630	
304A	P17			1-	9.604	2-	5.263	
3054A	P16			3-	9.842	4-	5.805	
378A	P18			5-	9.479	6-	5.227	
380B	P19			7-	5.161	8-	2.900	2800s 2 10.5gmp
354A	P16			1-	13.179	2-	7.644	
429A	P20			3-	13.516	4-	8.213	
438A	P20			5-	116.712	6-	10.463	
5070A	P20	✓	✓	7-	6.109	8-	3.572	
Stand-by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

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Chlorophyll Data Sheet

Cruise: 2017-06

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Dates of Cruise:

Time and date acetone added: 2pm 12 July, 2017

Analyst: SM+MH

Time and date out of freezer: 12pm 13 July 2017

Time analysis started: 1pm 13 July 2017

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.025			
STD			LOW	2-	11.24			
STD			HIGH	4-	61.142			
Blank				6-	-0.016	8-	-0.021	
350B	P16	306	10	1-	17.931	2-	10.728	no DF
205A	P12			3-	17.155	4-	9.632	
204	P12			5-	17.1	6-	9.489	
203B	P12			7-	16.513	8-	9.315	
202	P12			1-	16.574	2-	9.374	
201	P12			3-	15.974	4-	9.054	
200B	P12			5-	16.513	6-	9.694	
5034B	P12			7-	16.782	8-	9.519	
195	P12			1-	2.525	2-	1.712	
196	P12			3-	10.045	4-	6.531	
197A	P12			5-	16.931	6-	10.867	
198A	P12			7-	17.208	8-	10.668	
199A	P12			1-	16.001	2-	9.574	
200A	P12			3-	16.355	4-	9.565	
177A	P8			5-	17.048	6-	9.961	
186A	P9			7-	6.751	8-	3.83	
188B	P10			1-	13.822	2-	7.678	
190B	P11			3-	13.735	4-	7.628	
5034A	P12			5-	17.417	6-	9.955	
174	P8			7-	4.954	8-	3.381	
178A	P8			1-	16.901	2-	9.871	
185A	P8			3-	9.924	4-	5.512	
5030A	P8			5-	8.71	6-	4.956	
175	P8	↓	↓	7-	8.395	8-	5.612	
Stand-by				1-	-0.024			
Std	Low			2-	11.231			
Std	High			4-	60.932			
Blank	by			6-	-0.021	8-	-0.022	

350 CHL P16 40 m 2017-06 Bot 8	205 CHL P12 5 m 2017-06 Bot 14	204 CHL P12 10 m 2017-06 Bot 13	203 CHL P12 15 m 2017-06 Bot 12	202 CHL P12 20 m 2017-06 Bot 11	201 CHL P12 25 m 2017-06 Bot 10	200 CHL P12 30 m 2017-06 Bot 9	5034 Chl P12 LOOP 2017-06 Bot 1	195 CHL P12 100 m 2017-06 Bot 4	196 CHL P12 75 m 2017-06 Bot 5	197 CHL P12 60 m 2017-06 Bot 6
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198 CHL P12 50 m 2017-06 Bot 7	199 CHL P12 40 m 2017-06 Bot 8	200 CHL P12 30 m 2017-06 Bot 9	177 Chl P8 50 m 2017-06 Bot 16	186 CHL P9 5 m 2017-06 Bot 1	188 CHL P10 5 m 2017-06 Bot 1	190 CHL P11 5 m 2017-06 Bot 1	5034 Chl P12 LOOP 2017-06 Bot 1	174 Chl P8 100 m 2017-06 Bot 13	178 Chl P8 40 m 2017-06 Bot 17	185 Chl P8 5 m 2017-06 Bot 24
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5030 Chl P8 LOOP 2017-06 Bot 1	175 Chl P8 75 m 2017-06 Bot 14
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Chlorophyll Data Sheet

Cruise: 2017-06

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Dates of Cruise:

Time and date acetone added: 10am 13 July 2017 Analyst: SM+MH

Time and date out of freezer: 8am 14 July 2017

Time analysis started: 9am

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.022			
STD			LOW	2-	11.358			
STD			HIGH	4-	61.688			
Blank				6-	-0.020	8-	-0.019	
199B	P12	306	10	1-	16.199	2-	9.645	No DF
198B	P12			3-	16.462	4-	9.863	
197B	P12			5-	17.211	6-	11.378	
190A	P11			7-	14.730	8-	8.216	
186B	P9			1-	6.830	2-	3.950	
188A	P10			3-	14.723	4-	8.182	
5030B	P8			5-	8.042	6-	4.832	
203A	P12			7-	16.219	8-	9.368	
179A	P8			1-	11.715	2-	6.825	
183	P8			3-	7.834	4-	4.430	
182B	P8			5-	7.728	6-	4.399	
180	P8			7-	7.794	8-	4.466	
177B	P8			1-	16.073	2-	9.567	
176B	P8			3-	15.005	4-	9.414	
185B	P8			5-	9.132	6-	5.193	
181	P8			7-	7.378	8-	4.246	
178B	P8			1-	17.161	2-	10.026	
179B	P8			3-	11.737	4-	6.805	
176A	P8			5-	14.439	6-	8.280	
154B	P7			7-	4.560	8-	2.553	
152B	P0			1-	10.109	2-	5.734	
150A	P5			3-	11.337	4-	6.262	
143	P4			5-	7.758	6-	4.720	
139	P4			7-	10.582	8-	6.587	
Stand-by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

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20mL
44B

Chlorophyll Data Sheet

Cruise: 2017-06

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Dates of Cruise:

Time and date acetone added: 12 pm 13 July 2017 Analyst: MH+SM

Time and date out of freezer: 10am 14 July 2017

Time analysis started: 11am

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.023			
STD			LOW	2-	11.218			
STD			HIGH	4-	60.959			
Blank				6-	-0.021	8-	-0.024	
44B	P1	306	26	1-	223.819	2-	125.898	no DF
61B	P2	1	10	3-	24.301	4-	14.511	
62B	P2			5-	18.256	6-	11.371	
63B	P2			7-	17.761	8-	10.607	
64B	P2			1-	19.502	2-	11.536	
5012A	P2			3-	15.183	4-	9.053	
134A	P4			5-	7.582	6-	4.985	
135B	P4			7-	12.542	8-	8.191	
122	P4			1-	8.044	2-	4.571	
126	P4			3-	7.846	4-	4.66	
127	P4			5-	21.471	6-	13.258	
125	P4			7-	6.992	8-	3.98	
74B	P3			1-	14.03	2-	8.212	
5012B	P2			3-	15.099	4-	8.986	
140B	P4			5-	8.03	6-	4.738	
136A	P4			7-	19.288	8-	12.183	
132	P4			1-	3	2-	2.429	
133	P4			3-	6.608	4-	4.397	
134A	P4			5-	7.76	6-	5.126	
135A	P4			7-	12.542	8-	8.254	
142B	P4			1-	7.299	2-	4.13	
5022B	P4	✓	✓	3-	7.942	4-	4.88	
141	P4	-	-	5-	-	6-	-	didn't add acetone
137B	P4	-	-	7-	-	8-	-	didn't add acetone
Stand-by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

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Chlorophyll Data Sheet

Cruise: 2017-06

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Dates of Cruise:

Time and date acetone added: 2pm 13 July, 2017 Analyst: SM+MH

Time and date out of freezer: 12pm 14 July, 2017

Time analysis started: 1 pm

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.038			
STD			LOW	2-	11.246			
STD			HIGH	4-	60.394			
Blank				6-	-0.022	8-	-0.023	
74A	P3	306	10	1-	14.373	2-	8.442	No DF
124	P4			3-	9.018	4-	5.023	
60B	P2			5-	27.119	6-	16.868	
66	P2			7-	13.848	8-	8.412	
137A	P4			1-	21.224	2-	12.819	
140A	P4			3-	8.601	4-	5.180	
136B	P4			5-	18.882	6-	11.991	
5022A	P4			7-	6.842	8-	4.012	
142A	P4			1-	7.228	2-	4.096	
152A	P6			3-	9.526	4-	5.247	
154A	P7			5-	4.431	6-	2.468	
182A	P8			7-	7.301	8-	4.140	
150B	P5			1-	7.038	2-	3.933	
138	P4			3-	17.112	4-	10.469	
5007A	JF4			5-	170.959	6-	92.381	
5006B	JF3			7-	45.092	8-	25.547	
33B	JF2			1-	418.867	2-	24.586	
5004B	JF2			3-	31.319	4-	18.430	
5003A	JF1			5-	27.056	6-	16.890	
60A	P2			7-	25.247	8-	15.315	
59A	P2			1-	20.880	2-	13.112	
58	P2			3-	12.374	4-	8.319	
56	P2	✓	✓	5-	4.792	6-	3.351	✓
				7-		8-		
Stand-by				1-	-0.031			
Std	Low			2-	11.228			
Std	High			4-	60.145			
Blank	by			6-	-0.025	8-	-0.026	

74 A CHL P3 5 m 2017-06 Bot 2	124 CHL P4 55% 2017-06 Bot 19	50 B CHL P2 25 m 2017-06 Bot 8	56 CHL P2 0 m 2017-06 Bot 14	137 A CHL P4 30 m 2017-06 Bot 9	140 A CHL P4 15 m 2017-06 Bot 12	136 B CHL P4 40 m 2017-06 Bot 8	5022 A Chl P4 LOOP 2017-06 Bot 1	142 A CHL P4 5 m 2017-06 Bot 14	152 A CHL P6 5 m 2017-06 Bot 1	154 A CHL P7 5 m 2017-06 Bot 1
182 A Chl P8 15 m 2017-06 Bot 21	150 B CHL P5 5 m 2017-06 Bot 1	138 CHL P4 25 m 2017-06 Bot 10	5007 50 A Chl JF4 LOOP 2017-06 Bot 1	5006 B Chl JF3 LOOP 2017-06 Bot 1	33 B CHL JF2 5 m 2017-06 Bot 12	5007 B Chl JF2 LOOP 2017-06 Bot 1	5003 Chl A JF1 LOOP 2017-06 Bot 1	60 A CHL P2 25 m 2017-06 Bot 8	59 A CHL P2 30 m 2017-06 Bot 7	58 CHL P2 40 m 2017-06 Bot 6

56
CHL
P2
50 m
2017-06
Bot 4