

Chlorophyll Data Sheet

Cruise: 2016-07

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Dates of Cruise:

Time and date acetone added: 1145pm 25 July 16

Analyst: Tamar

Time and date out of freezer: 1245pm 26 July 16

Time analysis started: 145 pm 26 July 16

for 2418A

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.000			
STD			LOW	2-	12.006			
STD			HIGH	4-	65.100			
Blank				6-	0.000	8-	0.001	
187B	39	330	10	1-	69.190	2-	38.110	no DF
24B	59		10	3-	177.241	4-	102.098	no DF
6A	SI		10	5-	57.139	6-	39.089	no DF
185A	39		20	7-	193.624	8-	108.802	no DF
78A	69		10	1-	44.820	2-	26.117	no DF
106B	63		10	3-	158.243	4-	93.716	no DF
218B	2		10	5-	99.961	6-	58.720	no DF
52A	75		10	7-	31.359	8-	18.351	no DF
132A	56		10	1-	81.034	2-	49.149	no DF
220B	2		10	3-	84.490	4-	45.976	no DF
101A	65		10	5-	164.399	6-	94.622	no DF
78B	69		10	7-	43.538	8-	25.285	no DF
201B	27		10	1-	32.670	2-	23.876	no DF
202A	27		10	3-	118.965	4-	67.699	no DF
222A	CRF1		10	5-	61.082	6-	42.498	no DF
7B	SI		10	7-	94.210	8-	53.302	no DF
163B	42		10	1-	194.621	2-	114.716	no DF
90B	40P		10	3-	209.827	4-	119.285	no DF
108A	63		10	5-	171.943	6-	97.453	no DF
187A	39		10	7-	65.685	8-	36.149	no DF
105B	63		10	1-	109.464	2-	70.524	no DF
103B	65		10	3-	186.968	4-	108.390	no DF
68B	72		10	5-	69.303	6-	38.052	no DF
148B	46		10	7-	257.256	8-	140.647	no DF
Stand- by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

187	24	6	185	78	106 B	218 B
CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn 39	Stn 59	Stn 51	Stn 39	Stn 69	Stn 63	Stn 2
2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
Bot 21	Bot 15	Bot 6	Bot 19	Bot 9	Bot 2	Bot 13
B	B	A	A	A		

52 A	132 A	220 B	101	78	201 B	202 A	222
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn 75	Stn 55	Stn 2	Stn 65	Stn 69	Stn 27	Stn 27	tn cpf1
2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
Bot 12	Bot 11	Bot 15	Bot 8	Bot 9	Bot 13	Bot 14	Bot 1
			A	B			A

7	163	90	108 A	187	105 B	103	68	148 B
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn 51	Stn 42	Stn adcp	Stn 63	Stn 39	Stn 63	Stn 65	Stn 72	Stn 46
2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
Bot 7	Bot 14	Bot 8	Bot 4	Bot 21	Bot 1	Bot 10	Bot 13	Bot 12
B	B	B		A		B	B	

Chlorophyll Data Sheet

Cruise: 2016-07

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Dates of Cruise:

Time and date acetone added: 4:40pm 25 July 16

Analyst: Tamara

Time and date out of freezer: 2:40 pm 26 July 16

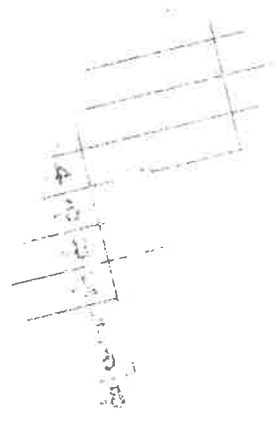
Time analysis started: 3:40 pm 26 July 16

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.000			
STD			LOW	2-	12.022			
STD			HIGH	4-	65.004			
Blank				6-	-0.000	8-	-0.000	
217A	2	330	10	1-	62.962	2-	42.733	no DF
248A	B511		10	3-	148.951	4-	81.868	no DF
100B	65		10	5-	169.036	6-	100.221	no DF
222B	CPF1		10	7-	64.405	8-	44.596	no DF
223B	CPF1		10	1-	162.417	2-	94.589	no DF
68A	72		10	3-	69.439	4-	38.288	no DF
223A	CPF1		10	5-	163.462	6-	95.321	no DF
204A	27		10	7-	52.772	8-	28.407	no DF
146B	46		10	1-	96.408	2-	59.312	no DF
202B	27		10	3-	116.819	4-	67.704	no DF
183B	39		10	5-	64.073	6-	40.892	no DF
22A	59		10	7-	204.613	8-	118.828	no DF
89B	A06P		10	1-	59.161	2-	37.773	no DF
145B	46		10	3-	48.295	4-	31.805	no DF
120B	62		10	5-	203.526	6-	113.432	no DF
165B	42		10	7-	173.271	8-	94.439	no DF
81B	69		10	1-	43.184	2-	24.121	no DF
117A	62		10	3-	202.837	4-	113.050	no DF
165A	42		10	5-	177.553	6-	96.569	no DF
66A	72		10	7-	54.106	8-	30.483	no DF
145A	46		10	1-	54.836	2-	35.751	no DF
21A	59		10	3-	176.942	4-	104.983	no DF
103A	65		10	5-	189.448	6-	109.063	no DF
51B	75		10	7-	26.084	8-	15.738	no DF
Stand- by				1-	-0.002			
Std	Low			2-	11.971			
Std	High			4-	64.717			
Blank	by			6-	0.000	8-	-0.001	

217 A	248	100	222	223	68	223	204 A
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn 2	Stn BS11	Stn 65	tn cpfl	tn cpfl	Stn 72	tn cpfl	Stn 27
2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
Bot 12	Bot 8	Bot 7	Bot 1	Bot 2	Bot 13	Bot 2	Bot 16
	A	B	B	B	A	A	

146 B	202 B	183	22	89	145 B	120 B	165
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn46	Stn 27	Stn39	Stn 59	Stn adcp	Stn46	Stn 62	Stn42
2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
Bot 10	Bot 14	Bot 17	Bot 13	Bot 7	Bot 9	Bot 11	Bot 16
		B	A	B			B

81	117 A	165	66	145 A	21	103	51 B
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn 69	Stn 62	Stn42	Stn 72	Stn46	Stn 59	Stn 65	Stn 75
2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
Bot 12	Bot 8	Bot 16	Bot 11	Bot 9	Bot 12	Bot 10	Bot 11
B		A	A		A	A	



Chlorophyll Data Sheet

Cruise: 2016-07

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Dates of Cruise:

Time and date acetone added: 26 July 16 145pm

Analyst: Tamara

Time and date out of freezer: 27 July 16 1145am

Time analysis started: 1245pm

90% acetone prepared 26 July 2016

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.001			
STD			LOW	2-	12.062			
STD			HIGH	4-	65.475			
Blank				6-	0.002	8-	0.001	
262A	6	330	10	1-	54.929	2-	31.016	no OF
329B	OKE		20	3-	190.361	4-	101.163	no OF
245A	BS11		10	5-	93.240	6-	57.586	no OF
81A	69		10	7-	43.656	8-	24.435	no OF
316B	16		10	1-	36.373	2-	22.005	no OF
96	51		10	3-	96.694	4-	54.470	no OF
318A	16		10	5-	73.819	6-	41.493	no OF
329A	OKE		20	7-	153.413	8-	81.676	no OF
290B	12		10	1-	51.907	2-	31.362	no OF
305A	14		10	3-	27.950	4-	17.722	no OF
290A	12		10	5-	49.393	6-	29.717	no OF
292A	12		10	7-	98.284	8-	53.043	no OF
272A	9		10	1-	41.376	2-	26.494	no OF
246B	BS11		10	3-	124.111	4-	72.845	no OF
332B	22		10	5-	67.646	6-	38.004	no OF
292B	12		10	7-	111.010	8-	59.464	no OF
259B	6		10	1-	99.921	2-	67.837	no OF
327B	OKE		10	3-	82.206	4-	46.900	no OF
260B	6		20	5-	104.301	6-	60.412	no OF
333B	22		20	7-	151.699	8-	78.887	no OF
326A	OKE		10	1-	42.686	2-	25.497	no OF
275A	9		10	3-	55.554	4-	30.687	no OF
275B	9		10	5-	56.682	6-	31.399	no OF
273A	9		10	7-	75.546	8-	45.816	no OF
Stand-by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

262	329	245	81	316 B	9	318 A	329
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn 6	Stn OKE	n BS11	Stn 69	Stn 16	Stn 51	Stn 16	Stn OKE
2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
Bot 13	Bot 10	Bot 5	Bot 12	Bot 9	Bot 9	Bot 11	Bot 10
A	B	A	A		B		A

290 B	305 A	290 A	292 A	272	246	332	292 B
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn 12	Stn 14	Stn 12	Stn 12	Stn 9	Stn BS11	Stn 22	Stn 12
2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
Bot 14	Bot 12	Bot 14	Bot 16	Bot 9	Bot 6	Bot 2	Bot 16
				A	B	B	

259	327	260	333	326	275	275	273
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn 6	Stn OKE	Stn 6	Stn 22	Stn OKE	Stn 9	Stn 9	Stn 9
2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
Bot 10	Bot 8	Bot 11	Bot 3	Bot 7	Bot 12	Bot 12	Bot 10
B	B	B	B	A	A	B	A

Chlorophyll Data Sheet

Cruise: 2016-07

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Dates of Cruise:

Time and date acetone added: 26 July 16 330pm

Analyst: Tamar

Time and date out of freezer: 27 July 16 145pm

Time analysis started: 3:05pm

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.002			
STD			LOW	2-	10.007			
STD			HIGH	4-	65.078			
Blank				6-	0.005	8-	-0.000	
237A	3	330	10	1-	68.899	2-	47.289	no DF
52B	75		10	3-	29.833	4-	17.351	no DF
54A	75		10	5-	77.302	6-	42.699	no DF
39B	102		10	7-	88.486	8-	47.867	no DF
24A	59		10	1-	176.973	2-	101.425	no DF
54B	75		10	3-	78.613	4-	43.335	no DF
39B	102		10	5-	70.187	6-	38.881	no DF
39A	102		10	7-	95.629	8-	52.277	no DF
92B	ADCP		10	1-	277.515	2-	157.140	no DF
106A	63		10	3-	152.306	4-	90.765	no DF
6B	SI		10	5-	58.029	6-	38.410	no DF
7A	SI		10	7-	96.560	8-	55.913	no DF
79A	69		10	1-	44.295	2-	25.525	no DF
79B	69		10	3-	45.099	4-	26.482	no DF
135A	56		10	5-	87.852	6-	51.940	no DF
201A	27		10	7-	33.089	8-	24.601	no DF
162A	42		10	1-	31.514	2-	23.131	no DF
65A	72		10	3-	38.124	4-	22.401	no DF
92A	ADCP		10	5-	270.848	6-	152.852	no DF
133B	56		10	7-	72.595	8-	43.783	no DF
133A	56		10	1-	81.130	2-	47.988	no DF
224B	CPF1		10	3-	180.606	4-	97.385	no DF
220A	2		10	5-	76.488	6-	41.982	no DF
22B	59		10	7-	205.543	8-	119.353	no DF
Stand- by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

237 CHL Stn 3 2016-07 Bot 13 A	52 B CHL Stn 75 2016-07 Bot 12	54 A CHL Stn 75 2016-07 Bot 14	39 CHL Stn 102 2016-07 Bot 14 B	24 CHL Stn 59 2016-07 Bot 15 A	54 B CHL Stn 75 2016-07 Bot 14	37 CHL Stn 102 2016-07 Bot 12 B	39 CHL Stn 102 2016-07 Bot 14 A
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92 CHL Stn adcp 2016-07 Bot 10 B	106 A CHL Stn 63 2016-07 Bot 2	6 CHL Stn SI 2016-07 Bot 6 B	7 CHL Stn SI 2016-07 Bot 7 A	79 CHL Stn 69 2016-07 Bot 10 BA	79 CHL Stn 69 2016-07 Bot 10 AB	135 A CHL Stn 56 2016-07 Bot 14	201 A CHL Stn 27 2016-07 Bot 13
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162 CHL Stn 42 2016-07 Bot 13 A	65 CHL Stn 72 2016-07 Bot 10 A	92 CHL Stn adcp 2016-07 Bot 10 A	133 B CHL Stn 56 2016-07 Bot 12	133 A CHL Stn 56 2016-07 Bot 12	224 CHL Stn cpfl 2016-07 Bot 3 B	220 A CHL Stn 2 2016-07 Bot 15	22 CHL Stn 59 2016-07 Bot 13 B
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Chlorophyll Data Sheet

Cruise: 2016-07

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Dates of Cruise:

Time and date acetone added: 26 July 16 4:40 pm Analyst: Tamara

Time and date out of freezer: 27 July 16 3:05 pm

Time analysis started: 4:15 pm

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.001			
STD			LOW	2-	11.995			
STD			HIGH	4-	64.973			
Blank				6-	0.002	8-		
218A	2	330	10	1-	101.368	2-	58.573	no DF
135B	56		10	3-1	85.014	4-2	51.155	no DF
108B	63		10	5-3	166.062	6-4	94.930	no DF
163A	42		10	7-	184.722	8-	102.852	no DF
162B	42		10	1-	29.906	2-	21.895	no DF
217B	2		10	3-	63.516	4-	43.542	no DF
259A	6		10	5-	101.176	6-	69.798	no DF
315B	16		10	7-	31.842	8-	19.838	no DF
327A	OKE		10	1-	81.117	2-	45.822	no DF
316A	16		10	3-	35.254	4-	21.354	no DF
21B	59		10	5-	187.963	6-	109.131	no DF
36A	102		10	7-	31.936	8-	18.715	no DF
224A	CPF1		10	1-	183.899	2-	98.787	no DF
9A	SI		10	3-	93.155	4-	53.527	no DF
237B	3		10	5-	71.355	6-	49.092	no DF
248B	BS11		10	7-	151.294	8-	84.191	no DF
315A	16		10	1-	32.227	2-	19.957	no DF
306A	14		10	3-	87.458	4-	51.809	no DF
332A	22		10	5-	67.125	6-	37.798	no DF
262B	6		10	7-	55.823	8-	31.999	no DF
318B	16		10	1-	72.058	2-	40.895	no DF
117B	62		10	3-	198.138	4-	111.581	no DF
51A	75		10	5-	25.128	6-	15.227	no DF
89A	ADCP		10	7-	57.156	8-	36.570	no DF
Stand-by				1-	-0.001			
Std	Low			2-	11.960			
Std	High			4-	64.599			
Blank	by			6-	0.001	8-	0.000	

218 A CHL Stn 2 2016-07 Bot 13	135 B CHL Stn 56 2016-07 Bot 14	108 B CHL Stn 63 2016-07 Bot 4	163 CHL Stn 42 2016-07 Bot 14 A	162 CHL Stn 42 2016-07 Bot 13 B	217 B CHL Stn 2 2016-07 Bot 12	259 CHL Stn 6 2016-07 Bot 10 A	315 B CHL Stn 16 2016-07 Bot 8
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327 CHL Stn OKE 2016-07 Bot 8 A	316 A CHL Stn 16 2016-07 Bot 9	21 CHL Stn 59 2016-07 Bot 12 B	36 CHL Stn 102 2016-07 Bot 11 A	224 CHL tn opfi 2016-07 Bot 3 A	9 CHL Stn 52 2016-07 Bot 9 A	237 CHL Stn 3 2016-07 Bot 13 B	248 CHL Stn BS11 2016-07 Bot 8 B
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315 A CHL Stn 15 2016-07 Bot 8	306 A CHL Stn 14 2016-07 Bot 13	332 CHL Stn 22 2016-07 Bot 2 A	#262 ⁰² CHL Stn 6 2016-0 Bot 13 B	118 B CHL Stn 16 2016-07 Bot 11	117 B CHL Stn 62 2016-07 Bot 8	51 A CHL Stn 75 2016-07 Bot 11	89 CHL Stn adcp 2016-07 Bot 7 A
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Chlorophyll Data Sheet

Cruise: 2016-07

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Dates of Cruise:

Time and date acetone added: 09 Aug 16 11:24am

Analyst: Tamar

Time and date out of freezer: 10 Aug 10:15am

Time analysis started: 11:25 am

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.004			
STD			LOW	2-	12.157			
STD			HIGH	4-	65.901			
Blank				6-	0.002	8- acid	0.003	
148A	46	330	10	1-	253.953	2-	136.807	no DF
204B	27		10	3-	56.333	4-	30.162	no DF
260A	6		10	5-	219.124	6-	126.737	no DF
240A	3		10	7-	81.124	8-	43.981	no DF
308A	14		10	1-	90.030	2-	52.239	no DF
308B	14		10	3-	92.383	4-	53.208	no DF
331B	22		10	5-	41.721	6-	27.860	no DF
132B	56		10	7-	73.385	8-	44.895	no DF
101B	65		10	1-	187.060	2-	102.846	no DF
100A	65		10	3-	175.139	4-	103.776	no DF
306B	14		10	5-	91.918	6-	54.105	no DF
146A	46		10	7-	96.084	8-	59.643	no DF
238B	3		10	1-	278.662	2-	160.600	no DF
246A	B511		10	3-	122.663	4-	72.842	no DF
289A	12		10	5-	62.062	6-	39.133	no DF
232B	9		10	7-	41.299	8-	26.688	no DF
331A	22		10	1-	44.092	2-	29.421	no DF
36B	102		10	3-	32.148	4-	18.912	no DF
120A	62		10	5-	218.230	6-	121.621	no DF
90A	ADCP		10	7-	223.870	8-	127.601	no DF
183A	39		10	1-	68.040	2-	43.639	no DF
238A	3		10	3-	284.338	4-	164.546	no DF
240B	3		10	5-	79.754	6-	43.097	no DF
66B	72		10	7-	54.900	8-	30.913	no DF
Stand-by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

148 A	204 B	260	240	308 A	308 B	331	132 B
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn 46	Stn 27	Stn 6	Stn 3	Stn 14	Stn 14	Stn 22	Stn 56
2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
Bot 12	Bot 16	Bot 11 A	Bot 16 A	Bot 15	Bot 15	Bot 1 B	Bot 11

101	100	306 B	146 A	238	246	289 A	272
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn 65	Stn 65	Stn 14	Stn 46	Stn 3	Stn 12	Stn 12	Stn 9
2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
Bot 8 B	Bot 7 A	Bot 13	Bot 10	Bot 14 B	Bot 6 A	Bot 13	Bot 9 B

331	36	120 A	90	183	238	240	66
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn 22	Stn 102	Stn 62	Stn adcp	Stn 39	Stn 3	Stn 3	Stn 72
2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
Bot 1 A	Bot 11 B	Bot 11	Bot 8 A	Bot 17 A	Bot 14 A	Bot 16 B	Bot 11 B

Chlorophyll Data Sheet

Cruise: 2016-07

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Dates of Cruise:

Time and date acetone added: 09 Aug 16 2:35pm

Analyst: Tamar

Time and date out of freezer: 10 Aug 16 12:20pm

Time analysis started: 10 Aug 16 1:30pm

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.001			
STD			LOW	2-	12.142			
STD			HIGH	4-	65.386			
Blank				6-	0.004	8-	0.003	
305B	14	330	10	1-	29.235	2-	18.497	no DF
273B	9		10	3-	77.756	4-	46.842	no DF
245B	BS11		10	5-	95.152	6-	59.621	no DF
333A	22		10	7-	278.903	8-	144.241	no DF
289B	12		10	1-	61.345	2-	38.032	no DF
65B	72		10	3-	39.604	4-	23.199	no DF
37A	102		10	5-	68.885	6-	37.765	no DF
105A	63		10	7-	113.806	8-	73.727	no DF
326B	OKE		10	1-	45.244	2-	27.236	no DF
185B	39		20	3-	198.482	4-	110.992	no DF
				5-		6-		
				7-		8-		
				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-	0.000			
Std	Low			2-	12.134			
Std	High			4-	65.483			
Blank	by			6-	0.001	8-+acid	0.002	

305 B	273	245	333	289 B	65	37	105 A
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn 14	Stn 9	n BS11	Stn 22	Stn 12	Stn 72	Stn 102	Stn 63
2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
Bot 12	Bot 10	Bot 5	Bot 3	Bot 13	Bot 10	Bot 12	Bot 1
	B	B	A		B	A	

326	185
CHL	CHL
Stn OKE	Stn 39
2016-07	2016-07
Bot 7	Bot 19
B	B