



Monthly Receiving Waters Monitoring Report for the Point Loma Ocean Outfall

(Point Loma Metropolitan Wastewater Treatment Plant)

NPDES Permit No. CA0107409

April 2015



City of San Diego
Ocean Monitoring Program
Public Utilities Department
Environmental Monitoring and Technical Services Division



THE CITY OF SAN DIEGO

May 31, 2015

Mr. David W. Gibson, Executive Officer
California Regional Water Quality Control Board
San Diego Region
2375 Northside Drive, Suite 100
San Diego, CA 92108

Attention: POTW Compliance Unit

Dear Mr. Gibson:

Enclosed is the April 2015 Monthly Receiving Waters Monitoring Report for the Point Loma Ocean Outfall, Point Loma Wastewater Treatment Plant as required per Order No. R9-2009-0001, NPDES Permit No. CA0107409.

This report includes raw ocean monitoring data and summaries of water quality parameters and ocean conditions measured during the month for the Point Loma outfall region. Also included are summaries of compliance with the bacterial water-contact standards specified in the California Ocean Plan.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Peter S. Vroom, Ph.D.
Deputy Public Utilities Director

TDS:mln

cc: U.S. Environmental Protection Agency, Region 9

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INTRODUCTION

Monthly reports of water quality and ocean conditions for the San Diego coastal region surrounding the Point Loma Ocean Outfall are submitted to the San Diego Regional Water Quality Control Board and U.S. EPA Region 9 in accordance with Order No. R9-2009-0001, NPDES Permit No. CA0107409 for the Point Loma Wastewater Treatment Plant (PLWTP), Point Loma Ocean Outfall (PLOO). This report includes receiving waters monitoring data collected from all shore, kelp and offshore stations specified in the above order. Data for influent and effluent monitoring activities for the PLWTP are presented in separate reports.

MATERIALS AND METHODS

Shore Stations

Water quality conditions are monitored at eight shore stations (D4, D5, D7–D12). These stations range from the tip of the Point Loma Peninsula to west of Mission Bay (see station locations map). Seawater samples are collected from the surf zone at each station five times during the month. These samples are subsequently transported to the City's Marine Microbiology Laboratory and analyzed for the presence of several types of fecal indicator bacteria (FIBs), including total coliforms, fecal coliforms, and *Enterococcus*. Visual observations of water color and clarity, surf height, human or animal activity, and weather conditions are also recorded at the time of sample collection. Wind speed and direction are measured using a hand-held anemometer with a compass.

Kelp Bed Stations

The eight kelp stations are sampled five times during the month according to permit specifications in order to monitor water quality conditions within the Point Loma kelp forest. These stations include three sites located along the inshore edge of the kelp bed paralleling the 9-m depth contour (i.e., stations C4, C5 and C6), and five sites located near the offshore edge of the kelp bed along the 18-m depth contour (i.e., stations A1, A6, A7, C7 and C8).

Routine weekly monitoring at each of the kelp bed sites consists primarily of collecting seawater samples at discrete depths to determine concentrations of indicator bacteria (i.e., total coliforms, fecal coliforms, and *Enterococcus*). Additional samples for ammonium analysis are collected at these same sites and depths on a quarterly basis in order to correspond to sampling at the offshore stations located within State waters that is typically scheduled during the months of February, May, August and November. Water column profiles of various physical/chemical parameters are also generated during each sampling event, and visual observations of weather and water conditions are recorded at each station.

Van Dorn bottles are used to collect seawater samples from discrete depths at the kelp bed stations. The bottles are arrayed at the required depths and messenger-tripped in series. Aliquots for ammonium and bacteriological analyses are then drawn from these bottles into sterile sample bottles for processing at the City's Toxicology Laboratory (ammonium) and Marine Microbiology Laboratory (bacteria), respectively. Water column profiles of temperature, transmissivity, dissolved oxygen, pH, salinity, density, chlorophyll *a* are generated using a Sea-Bird conductivity, temperature and depth instrument (CTD), which collects these data at a rate of

eight scans per second. These scans are then internally averaged to create water column profiles with data readings at a rate of one per meter. The CTD data are presented in both graphical and tabular form. Additionally, data for depths closest to those where bacteriological samples are collected are extracted from the CTD profiles and presented with the bacteriological data. However, it should be noted that the CTD measurements and bacteriological samples are taken from separate hydrocasts.

Offshore Stations

Offshore water quality sampling is conducted quarterly typically during the months of February, May, August and November. A total of 36 offshore stations (F01–F36) are sampled during each survey usually over a 3-day period. Three of the stations (F01–F03) are located along the 18-m depth contour, while 11 stations are located along each of the following contours: 60 m (stations F04–F14); 80 m (stations F15–F25); 98 m (stations F26–F36). Of these 36 stations, 15 (F01-F03, F06-F14, F18-F20) are located within State jurisdictional waters (i.e., within 3 nautical miles of shore) and are subject to the 2009 COP compliance standards.

Monitoring at all offshore sites includes measurements of *Enterococcus* bacteria, water temperature, salinity, density, dissolved oxygen, pH, chlorophyll *a*, transmissivity, chromomorphic dissolved organic matter (CDOM), and visual observations of weather and water conditions. Monitoring at sites within State waters also include the collection of discrete grab samples for ammonium analysis (see Table 4.2).

Seawater samples for ammonium and bacteriological analyses at the offshore stations are primarily collected using a CTD-integrated rosette sampler with Niskin bottles. Profiles of the various physical/chemical parameters (listed above) are taken using a Sea-Bird CTD. The CTD profile data are then presented in both graphical and tabular form. Additionally, data for depths closest to those at which bacteriological samples are collected are extracted from the CTD profiles and presented with the bacteriological data.

Bacteriological Reporting and Quality Assurance

Estimated values for bacteriological analyses are denoted by greater than (>), less than (<), or estimated (e) qualifiers and result from plates with colony counts above or below the permissible counting limits established in Bordner et al. (1978)^[1]. This document defines membrane filtration limits of 20–80 colonies per plate for total coliforms and 20–60 colonies per plate for fecal coliforms and *Enterococcus*. No Data (ND) is reported if plate counts from all dilutions have a total colony count of >200 per plate.

Results of the bacteriological analysis of seawater samples collected from each of the shore, kelp bed, and offshore stations located within State waters are assessed relative to the geometric mean and single sample maximum water-contact standards specified in the 2009 California Ocean Plan. The seven standards are defined as follows:

^[1]Bordner, R., J. Winter, and P. Scarpino (eds.). (1978). Microbiological Methods for Monitoring the Environment: Water and Wastes, EPA Research and Development, EPA-600/8-78-017. 337 p.

30-day Geometric Mean: The following standards are based on the geometric mean of the five most recent samples from each site.

- (1) Total coliform density shall not exceed 1000 CFU/100 mL;
- (2) Fecal coliform density shall not exceed 200 CFU/100 mL;
- (3) *Enterococcus* density shall not exceed 35 CFU/100 mL.

Single Sample Maximums:

- (1) Total coliform density shall not exceed 10,000 CFU/100 mL;
- (2) Fecal coliform density shall not exceed 400 CFU/100 mL;
- (3) *Enterococcus* density shall not exceed 104 CFU/100 mL;
- (4) Total coliform density shall not exceed 1,000 CFU/100 mL when the fecal coliform/total coliform ratio exceeds 0.1.

Quality controls of bacteriological data include laboratory and field duplicate analyses. Laboratory duplicates are performed on approximately 10% of the water quality samples, while field duplicates are performed six times a month (see Appendix A). Laboratory duplicates represent two aliquots of the original sample that are split in the laboratory and analyzed by the same analyst using identical procedures within the same analytical run. The results of these analyses provide a measure of intra-analyst precision. In contrast, field duplicates represent two separate samples collected at the same time from the same site, which are handled under identical circumstances and treated exactly the same throughout field and lab procedures. The results of these analyses provide a measure of precision associated with sample collection, preservation, storage, and lab procedures. The sign test (see Gilbert, 1987) is used to statistically compare both the results from the laboratory duplicates, as well as the results from the field duplicates. These data will be further analyzed in the City's 2015 Quality Assurance Report, which will be completed in March 2016.

SUMMARY OF RESULTS

Shore Stations

- During April 2015, each of the eight shore stations were in compliance with all of the water-contact standards specified in the Ocean Plan for total coliform, fecal coliform, and *Enterococcus* bacteria.
- Nothing of sewage origin was observed at any of the shore stations.

Kelp Bed Stations

- The eight kelp bed water quality stations (A1, A6, A7, C4, C5, C6, C7, C8) were sampled five times during April (i.e. April 2, 10, 15, 21, 28).
- During April, each of the kelp bed stations was in compliance with all of the water-contact standards specified in the Ocean Plan for total coliform, fecal coliform, and *Enterococcus* bacteria.
- Water column temperatures ranged from 10.99 to 17.51°C during the month. The difference between surface and bottom waters ranged from 0.21 to 6.05°C, indicating that the water column was stratified at the kelp bed stations during the month.

- Chlorophyll *a* concentrations ranged from 0.00 to 9.19 $\mu\text{g/L}$ during April, suggesting the absence of phytoplankton blooms during the month.
- Notable visual observations for April included: foam that was possible related to plankton at station C4 on April 15.

Offshore Stations

- Quarterly sampling was not conducted during April at the offshore stations. The next quarterly sampling is scheduled for May 2015.



TABLES AND FIGURES

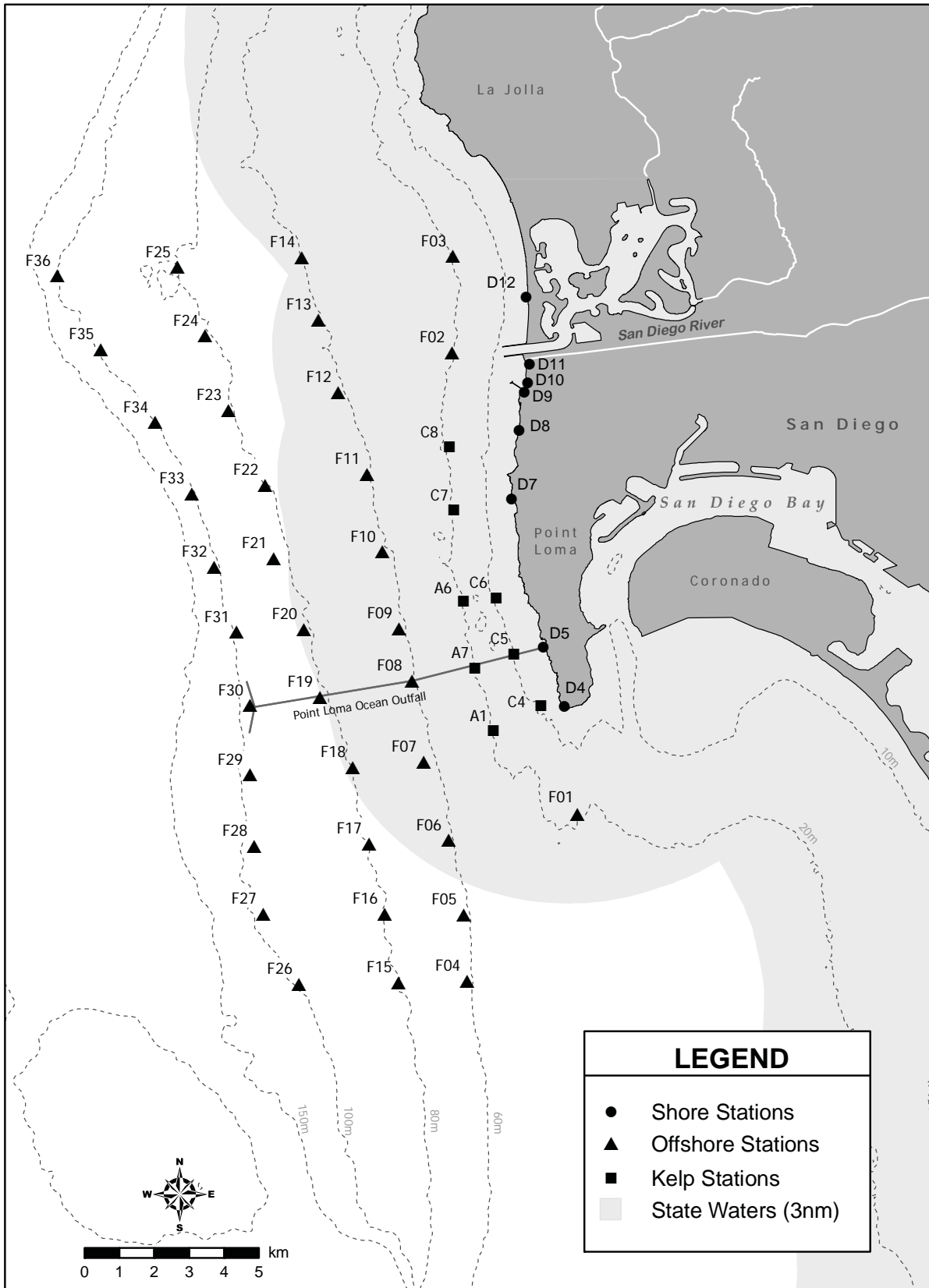


Figure 1.1 Station Map

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Shore Stations

Table 2.1

Summary of compliance with the 2009 Ocean Plan's 30-day Geometric Mean standard for total coliforms at the PLOO shore stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >1,000 CFU/100 mL exceed the standard.

Date	D4	D5	D7	D8	D9	D10	D11	D12
01 Apr 2015	4	18	19	19	21	14	21	9
02 Apr 2015	4	18	19	19	21	14	21	9
03 Apr 2015	4	18	19	19	21	14	21	9
04 Apr 2015	4	18	19	19	21	14	21	9
05 Apr 2015	5	18	18	19	21	17	21	10
06 Apr 2015	6	19	19	26	29	22	26	14
07 Apr 2015	6	19	19	26	29	22	26	14
08 Apr 2015	6	19	19	26	29	22	26	14
09 Apr 2015	6	19	19	26	29	22	26	14
10 Apr 2015	6	19	19	26	29	22	26	14
11 Apr 2015	5	13	13	25	24	22	30	10
12 Apr 2015	6	10	14	26	32	21	33	13
13 Apr 2015	6	10	14	26	32	21	33	13
14 Apr 2015	6	10	14	26	32	21	33	13
15 Apr 2015	6	10	14	26	32	21	33	13
16 Apr 2015	6	10	14	26	32	21	33	13
17 Apr 2015	6	15	13	20	20	22	29	9
18 Apr 2015	6	15	13	20	20	22	29	9
19 Apr 2015	6	15	13	20	20	22	29	9
20 Apr 2015	6	15	13	20	20	22	29	9
21 Apr 2015	6	15	13	20	20	22	29	9
22 Apr 2015	6	15	13	20	20	22	29	9
23 Apr 2015	4	15	13	20	19	22	33	9
24 Apr 2015	4	15	13	20	19	22	33	9
25 Apr 2015	4	15	13	20	19	22	33	9
26 Apr 2015	4	15	13	20	19	22	33	9
27 Apr 2015	4	15	13	20	19	22	33	9
28 Apr 2015	4	15	13	20	19	22	33	9
29 Apr 2015	7	19	13	32	17	21	33	8
30 Apr 2015	7	19	13	32	17	21	33	8

* Geometric mean calculated using an n<5

Table 2.2

Summary of compliance with the 2009 Ocean Plan's 30-day Geometric Mean standard for fecal coliform at the PLOO shore stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >200 CFU/100 mL exceed the standard.

Date	D4	D5	D7	D8	D9	D10	D11	D12
01 Apr 2015	2	2	4	6	4	4	13	7
02 Apr 2015	2	2	4	6	4	4	13	7
03 Apr 2015	2	2	4	6	4	4	13	7
04 Apr 2015	2	2	4	6	4	4	13	7
05 Apr 2015	3	2	4	5	4	5	11	5
06 Apr 2015	3	2	5	6	4	5	14	7
07 Apr 2015	3	2	5	6	4	5	14	7
08 Apr 2015	3	2	5	6	4	5	14	7
09 Apr 2015	3	2	5	6	4	5	14	7
10 Apr 2015	3	2	5	6	4	5	14	7
11 Apr 2015	3	2	4	5	4	7	14	5
12 Apr 2015	3	2	5	5	4	8	13	7
13 Apr 2015	3	2	5	5	4	8	13	7
14 Apr 2015	3	2	5	5	4	8	13	7
15 Apr 2015	3	2	5	5	4	8	13	7
16 Apr 2015	3	2	5	5	4	8	13	7
17 Apr 2015	3	5	3	5	3	9	7	3
18 Apr 2015	3	5	3	5	3	9	7	3
19 Apr 2015	3	5	3	5	3	9	7	3
20 Apr 2015	3	5	3	5	3	9	7	3
21 Apr 2015	3	5	3	5	3	9	7	3
22 Apr 2015	3	5	3	5	3	9	7	3
23 Apr 2015	3	5	5	5	3	14	7	2
24 Apr 2015	3	5	5	5	3	14	7	2
25 Apr 2015	3	5	5	5	3	14	7	2
26 Apr 2015	3	5	5	5	3	14	7	2
27 Apr 2015	3	5	5	5	3	14	7	2
28 Apr 2015	3	5	5	5	3	14	7	2
29 Apr 2015	3	4	5	4	3	11	6	2
30 Apr 2015	3	4	5	4	3	11	6	2

* Geometric mean calculated using an n<5

Table 2.3

Summary of compliance with the 2009 Ocean Plan's 30-day Geometric Mean standard for *Enterococcus* at the PLOO shore stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >35 CFU/100 mL exceed the standard.

Date	D4	D5	D7	D8	D9	D10	D11	D12
01 Apr 2015	2	2	4	9	7	4	9	5
02 Apr 2015	2	2	4	6	7	4	9	5
03 Apr 2015	2	2	4	6	7	4	9	5
04 Apr 2015	2	2	4	6	7	4	9	5
05 Apr 2015	2	2	3	5	6	4	10	5
06 Apr 2015	2	2	3	7	5	5	13	5
07 Apr 2015	2	2	3	7	5	5	13	5
08 Apr 2015	2	2	3	7	5	5	13	5
09 Apr 2015	2	2	3	7	5	5	13	5
10 Apr 2015	2	2	3	7	5	5	13	5
11 Apr 2015	2	2	3	5	4	5	13	4
12 Apr 2015	2	2	3	7	5	5	12	5
13 Apr 2015	2	2	3	7	5	5	12	5
14 Apr 2015	2	2	3	7	5	5	12	5
15 Apr 2015	2	2	3	7	5	5	12	5
16 Apr 2015	2	2	3	7	5	5	12	5
17 Apr 2015	2	3	2	7	2	5	6	3
18 Apr 2015	2	3	2	7	2	5	6	3
19 Apr 2015	2	3	2	7	2	5	6	3
20 Apr 2015	2	3	2	7	2	5	6	3
21 Apr 2015	2	3	2	7	2	5	6	3
22 Apr 2015	2	3	2	7	2	5	6	3
23 Apr 2015	2	3	4	7	2	6	6	3
24 Apr 2015	2	3	4	7	2	6	6	3
25 Apr 2015	2	3	4	7	2	6	6	3
26 Apr 2015	2	3	4	7	2	6	6	3
27 Apr 2015	2	3	4	7	2	6	6	3
28 Apr 2015	2	3	4	7	2	6	6	3
29 Apr 2015	2	3	4	6	2	6	6	3
30 Apr 2015	2	3	4	6	2	6	6	3

* Geometric mean calculated using an n<5

Table 2.4

Summary of compliance at the PLOO shore stations with the 2009 Ocean Plan's Single Sample Maximum standard for total coliform bacteria, which states that total coliform density shall not exceed 10,000 CFU/100 mL.

Date	D4	D5	D7	D8	D9	D10	D11	D12
05 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
11 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
17 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
23 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
29 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 2.5

Summary of compliance at the PLOO shore stations with the 2009 Ocean Plan's Single Sample Maximum standard for fecal coliform bacteria, which states that fecal coliform density shall not exceed 400 CFU/100 mL.

Date	D4	D5	D7	D8	D9	D10	D11	D12
05 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
11 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
17 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
23 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
29 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 2.6

Summary of compliance at the PLOO shore stations with the 2009 Ocean Plan's Single Sample Maximum standard for *Enterococcus* bacteria, which states that *Enterococcus* density shall not exceed 104 CFU/100 mL.

Date	D4	D5	D7	D8	D9	D10	D11	D12
05 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
11 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
17 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
23 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
29 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 2.7

Summary of compliance at the PLOO shore stations with the 2009 Ocean Plan's Single Sample Maximum standard for total coliforms and the fecal/total coliform ratio (F:T), which states that total coliform density shall not exceed 1,000 CFU/100 mL when F:T > 0.1.

Date	D4	D5	D7	D8	D9	D10	D11	D12
05 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
11 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
17 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
23 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
29 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 2.8

Summary of water quality parameters at the PLOO shore stations for each sample date. Densities of total coliform (Total), fecal coliform (Fecal), and *Enterococcus* (Entero) are reported as CFU/100 mL. The fecal:total coliform ratio (F:T) is unitless. Comments follow the data summary.

Station	Date	Time	Total	Fecal	Entero	F:T
D4	05 Apr 2015	906	20e	14e	2e	0.70
D4	11 Apr 2015	1034	<2	<2	<2	1.00
D4	17 Apr 2015	806	4e	<2	2e	0.50
D4	23 Apr 2015	1013	4e	<2	<2	0.50
D4	29 Apr 2015	1042	<20	<2	<2	0.10
D5	05 Apr 2015	926	<20	<2	<2	0.10
D5	11 Apr 2015	1105	2e	<2	<2	1.00
D5	17 Apr 2015	827	140e	60e	30e	0.43
D5	23 Apr 2015	1045	<20	<2	<2	0.10
D5	29 Apr 2015	1059	<20	2e	<2	0.10
D7	05 Apr 2015	837	14e	12e	<2	0.86
D7	11 Apr 2015	949	<2	<2	<2	1.00
D7	17 Apr 2015	1034	<20	<2	<2	0.10
D7	23 Apr 2015	930	40e	20e	46	0.50
D7	29 Apr 2015	1018	<20	<2	2e	0.10
D8	05 Apr 2015	824	<20	<2	4e	0.10
D8	11 Apr 2015	924	<20	2e	<2	0.10
D8	17 Apr 2015	1017	20e	40e	100	2.00
D8	23 Apr 2015	913	20e	<2	<2	0.10
D8	29 Apr 2015	933	<200	2e	6e	0.01
D9	05 Apr 2015	810	<20	2e	<2	0.10
D9	11 Apr 2015	905	10e	<2	<2	0.20
D9	17 Apr 2015	957	<20	<20	<2	1.00
D9	23 Apr 2015	850	16e	<2	<2	0.12
D9	29 Apr 2015	924	<20	<2	<2	0.10
D10	05 Apr 2015	752	40e	10e	4e	0.25
D10	11 Apr 2015	856	20e	<20	4e	1.00
D10	17 Apr 2015	934	60e	20e	16e	0.33
D10	23 Apr 2015	826	20e	<20	12e	1.00
D10	29 Apr 2015	913	4e	<2	<2	0.50
D11	05 Apr 2015	740	<20	6e	10e	0.30
D11	11 Apr 2015	836	60e	14e	12e	0.23
D11	17 Apr 2015	921	40e	<2	2e	0.05
D11	23 Apr 2015	800	40e	20e	14e	0.50
D11	29 Apr 2015	858	<20	<2	<2	0.10
D12	05 Apr 2015	719	<20	<2	4e	0.10
D12	11 Apr 2015	813	<2	<2	2e	1.00
D12	17 Apr 2015	902	<20	2e	4e	0.10
D12	23 Apr 2015	745	20e	<2	<2	0.10
D12	29 Apr 2015	842	<2	<2	<2	1.00

ns = not sampled

Table 2.9

Summary of visual observations made during the month for each PLOO shore station by sample date.

Station	Date	Parameter	Value
D4	05 Apr 2015	Arrive Time	906
D4	05 Apr 2015	Weather	Partly Cloudy
D4	05 Apr 2015	Wind Speed (kts)	4
D4	05 Apr 2015	Wind Dir	W
D4	05 Apr 2015	Animal Life	20 Cormorants
D4	05 Apr 2015	Floatables	None
D4	05 Apr 2015	Water Color	Green
D4	05 Apr 2015	Current Direction	W
D4	05 Apr 2015	Wave Height Low (ft)	3
D4	05 Apr 2015	High Tide (ft)	4.3
D4	05 Apr 2015	High Tide Time	1025
D4	05 Apr 2015	Low Tide (ft)	0
D4	05 Apr 2015	Low Tide Time	426
D4	05 Apr 2015	Comments	
D4	11 Apr 2015	Arrive Time	1034
D4	11 Apr 2015	Weather	Sunny
D4	11 Apr 2015	Wind Speed (kts)	2.3
D4	11 Apr 2015	Wind Dir	SW
D4	11 Apr 2015	Animal Life	None
D4	11 Apr 2015	Floatables	None
D4	11 Apr 2015	Water Color	Green
D4	11 Apr 2015	Current Direction	SW
D4	11 Apr 2015	Wave Height Low (ft)	1
D4	11 Apr 2015	High Tide (ft)	3.1
D4	11 Apr 2015	High Tide Time	1648
D4	11 Apr 2015	Low Tide (ft)	0.4
D4	11 Apr 2015	Low Tide Time	951
D4	11 Apr 2015	Comments	Kelp; Seagrass; Algae; Water clear
D4	17 Apr 2015	Arrive Time	806
D4	17 Apr 2015	Weather	Sunny
D4	17 Apr 2015	Wind Speed (kts)	3
D4	17 Apr 2015	Wind Dir	SW
D4	17 Apr 2015	Animal Life	20 Cormorants
D4	17 Apr 2015	Floatables	None
D4	17 Apr 2015	Water Color	Green
D4	17 Apr 2015	Current Direction	SW
D4	17 Apr 2015	Wave Height Low (ft)	3
D4	17 Apr 2015	High Tide (ft)	5.1
D4	17 Apr 2015	High Tide Time	849
D4	17 Apr 2015	Low Tide (ft)	-0.5
D4	17 Apr 2015	Low Tide Time	249
D4	17 Apr 2015	Comments	Kelp; Seagrass; 2 Boats; Water clear

Station	Date	Parameter	Value
D4	23 Apr 2015	Arrive Time	1013
D4	23 Apr 2015	Weather	Cloudy
D4	23 Apr 2015	Wind Speed (kts)	3.1
D4	23 Apr 2015	Wind Dir	S
D4	23 Apr 2015	Animal Life	None
D4	23 Apr 2015	Floatables	None
D4	23 Apr 2015	Water Color	Green
D4	23 Apr 2015	Current Direction	S
D4	23 Apr 2015	Wave Height Low (ft)	2
D4	23 Apr 2015	High Tide (ft)	3.3
D4	23 Apr 2015	High Tide Time	1431
D4	23 Apr 2015	Low Tide (ft)	0
D4	23 Apr 2015	Low Tide Time	749
D4	23 Apr 2015	Comments	Kelp; Seagrass; Water clear
D4	29 Apr 2015	Arrive Time	1042
D4	29 Apr 2015	Weather	Sunny
D4	29 Apr 2015	Wind Speed (kts)	4.4
D4	29 Apr 2015	Wind Dir	W
D4	29 Apr 2015	Animal Life	None
D4	29 Apr 2015	Floatables	None
D4	29 Apr 2015	Water Color	Green
D4	29 Apr 2015	Current Direction	W
D4	29 Apr 2015	Wave Height Low (ft)	3
D4	29 Apr 2015	High Tide (ft)	4
D4	29 Apr 2015	High Tide Time	710
D4	29 Apr 2015	Low Tide (ft)	0.7
D4	29 Apr 2015	Low Tide Time	1323
D4	29 Apr 2015	Comments	Water clear
D5	05 Apr 2015	Arrive Time	926
D5	05 Apr 2015	Weather	Sunny
D5	05 Apr 2015	Wind Speed (kts)	3
D5	05 Apr 2015	Wind Dir	W
D5	05 Apr 2015	Animal Life	21 Cormorants; 3 Seagulls
D5	05 Apr 2015	Floatables	None
D5	05 Apr 2015	Water Color	Green
D5	05 Apr 2015	Current Direction	W
D5	05 Apr 2015	Wave Height Low (ft)	4
D5	05 Apr 2015	High Tide (ft)	4.3
D5	05 Apr 2015	High Tide Time	1025
D5	05 Apr 2015	Low Tide (ft)	0
D5	05 Apr 2015	Low Tide Time	426
D5	05 Apr 2015	Comments	Kelp; Seagrass; Water turbid
D5	11 Apr 2015	Arrive Time	1105
D5	11 Apr 2015	Weather	Sunny
D5	11 Apr 2015	Wind Speed (kts)	2.1

Station	Date	Parameter	Value
D5	11 Apr 2015	Wind Dir	SW
D5	11 Apr 2015	Animal Life	1 Seal
D5	11 Apr 2015	Floatables	None
D5	11 Apr 2015	Water Color	Green
D5	11 Apr 2015	Current Direction	SW
D5	11 Apr 2015	Wave Height Low (ft)	1
D5	11 Apr 2015	High Tide (ft)	3.1
D5	11 Apr 2015	High Tide Time	1648
D5	11 Apr 2015	Low Tide (ft)	0.4
D5	11 Apr 2015	Low Tide Time	951
D5	11 Apr 2015	Comments	Seagrass; Algae; Water clear
D5	17 Apr 2015	Arrive Time	827
D5	17 Apr 2015	Weather	Sunny
D5	17 Apr 2015	Wind Speed (kts)	3
D5	17 Apr 2015	Wind Dir	SW
D5	17 Apr 2015	Animal Life	None
D5	17 Apr 2015	Floatables	None
D5	17 Apr 2015	Water Color	Green
D5	17 Apr 2015	Current Direction	SW
D5	17 Apr 2015	Wave Height Low (ft)	4
D5	17 Apr 2015	High Tide (ft)	5.1
D5	17 Apr 2015	High Tide Time	849
D5	17 Apr 2015	Low Tide (ft)	-0.5
D5	17 Apr 2015	Low Tide Time	249
D5	17 Apr 2015	Comments	Kelp; Seagrass; Water turbid
D5	23 Apr 2015	Arrive Time	1045
D5	23 Apr 2015	Weather	Cloudy
D5	23 Apr 2015	Wind Speed (kts)	3.1
D5	23 Apr 2015	Wind Dir	S
D5	23 Apr 2015	Animal Life	None
D5	23 Apr 2015	Floatables	None
D5	23 Apr 2015	Water Color	Green
D5	23 Apr 2015	Current Direction	S
D5	23 Apr 2015	Wave Height Low (ft)	2
D5	23 Apr 2015	High Tide (ft)	3.3
D5	23 Apr 2015	High Tide Time	1431
D5	23 Apr 2015	Low Tide (ft)	0
D5	23 Apr 2015	Low Tide Time	749
D5	23 Apr 2015	Comments	Kelp; Water clear
D5	29 Apr 2015	Arrive Time	1059
D5	29 Apr 2015	Weather	Sunny
D5	29 Apr 2015	Wind Speed (kts)	5.2
D5	29 Apr 2015	Wind Dir	W
D5	29 Apr 2015	Animal Life	None
D5	29 Apr 2015	Floatables	None
D5	29 Apr 2015	Water Color	Green

Station	Date	Parameter	Value
D5	29 Apr 2015	Current Direction	W
D5	29 Apr 2015	Wave Height Low (ft)	3
D5	29 Apr 2015	High Tide (ft)	4
D5	29 Apr 2015	High Tide Time	710
D5	29 Apr 2015	Low Tide (ft)	0.7
D5	29 Apr 2015	Low Tide Time	1323
D5	29 Apr 2015	Comments	Water clear
D7	05 Apr 2015	Arrive Time	837
D7	05 Apr 2015	Weather	Partly Cloudy
D7	05 Apr 2015	Wind Speed (kts)	3
D7	05 Apr 2015	Wind Dir	W
D7	05 Apr 2015	Animal Life	None
D7	05 Apr 2015	Floatables	None
D7	05 Apr 2015	Water Color	Green
D7	05 Apr 2015	Current Direction	W
D7	05 Apr 2015	Wave Height Low (ft)	3
D7	05 Apr 2015	High Tide (ft)	4.3
D7	05 Apr 2015	High Tide Time	1025
D7	05 Apr 2015	Low Tide (ft)	0
D7	05 Apr 2015	Low Tide Time	426
D7	05 Apr 2015	Comments	Kelp; Seagrass; Water turbid
D7	11 Apr 2015	Arrive Time	949
D7	11 Apr 2015	Weather	Sunny
D7	11 Apr 2015	Wind Speed (kts)	3.4
D7	11 Apr 2015	Wind Dir	SW
D7	11 Apr 2015	Animal Life	None
D7	11 Apr 2015	Floatables	None
D7	11 Apr 2015	Water Color	Green
D7	11 Apr 2015	Current Direction	SW
D7	11 Apr 2015	Wave Height Low (ft)	1
D7	11 Apr 2015	High Tide (ft)	3.1
D7	11 Apr 2015	High Tide Time	1648
D7	11 Apr 2015	Low Tide (ft)	0.4
D7	11 Apr 2015	Low Tide Time	951
D7	11 Apr 2015	Comments	Kelp; Seagrass; Algae; Water clear
D7	17 Apr 2015	Arrive Time	1034
D7	17 Apr 2015	Weather	Sunny
D7	17 Apr 2015	Wind Speed (kts)	4
D7	17 Apr 2015	Wind Dir	SW
D7	17 Apr 2015	Animal Life	None
D7	17 Apr 2015	Floatables	None
D7	17 Apr 2015	Water Color	Green
D7	17 Apr 2015	Current Direction	SW
D7	17 Apr 2015	Wave Height Low (ft)	4
D7	17 Apr 2015	High Tide (ft)	5.1
D7	17 Apr 2015	High Tide Time	849

Station	Date	Parameter	Value
D7	17 Apr 2015	Low Tide (ft)	-0.2
D7	17 Apr 2015	Low Tide Time	1455
D7	17 Apr 2015	Comments	Kelp; Seagrass; 4 Surfers; Water turbid
D7	23 Apr 2015	Arrive Time	930
D7	23 Apr 2015	Weather	Cloudy
D7	23 Apr 2015	Wind Speed (kts)	2.1
D7	23 Apr 2015	Wind Dir	S
D7	23 Apr 2015	Animal Life	None
D7	23 Apr 2015	Floatables	None
D7	23 Apr 2015	Water Color	Green
D7	23 Apr 2015	Current Direction	S
D7	23 Apr 2015	Wave Height Low (ft)	2
D7	23 Apr 2015	High Tide (ft)	3.3
D7	23 Apr 2015	High Tide Time	1431
D7	23 Apr 2015	Low Tide (ft)	0
D7	23 Apr 2015	Low Tide Time	749
D7	23 Apr 2015	Comments	Kelp; Seagrass; Algae; Water clear
D7	29 Apr 2015	Arrive Time	1018
D7	29 Apr 2015	Weather	Overcast
D7	29 Apr 2015	Wind Speed (kts)	1.3
D7	29 Apr 2015	Wind Dir	SW
D7	29 Apr 2015	Animal Life	None
D7	29 Apr 2015	Floatables	None
D7	29 Apr 2015	Water Color	Green
D7	29 Apr 2015	Current Direction	SW
D7	29 Apr 2015	Wave Height Low (ft)	3
D7	29 Apr 2015	High Tide (ft)	4
D7	29 Apr 2015	High Tide Time	710
D7	29 Apr 2015	Low Tide (ft)	0.7
D7	29 Apr 2015	Low Tide Time	1323
D7	29 Apr 2015	Comments	1 Person; Water clear
D8	05 Apr 2015	Arrive Time	824
D8	05 Apr 2015	Weather	Partly Cloudy
D8	05 Apr 2015	Wind Speed (kts)	3
D8	05 Apr 2015	Wind Dir	E
D8	05 Apr 2015	Animal Life	None
D8	05 Apr 2015	Floatables	None
D8	05 Apr 2015	Water Color	Green
D8	05 Apr 2015	Current Direction	E
D8	05 Apr 2015	Wave Height Low (ft)	3
D8	05 Apr 2015	High Tide (ft)	4.3
D8	05 Apr 2015	High Tide Time	1025
D8	05 Apr 2015	Low Tide (ft)	0
D8	05 Apr 2015	Low Tide Time	426
D8	05 Apr 2015	Comments	Kelp; Seagrass; Water turbid

Station	Date	Parameter	Value
D8	11 Apr 2015	Arrive Time	924
D8	11 Apr 2015	Weather	Sunny
D8	11 Apr 2015	Wind Speed (kts)	1.3
D8	11 Apr 2015	Wind Dir	SW
D8	11 Apr 2015	Animal Life	None
D8	11 Apr 2015	Floatables	None
D8	11 Apr 2015	Water Color	Brown
D8	11 Apr 2015	Current Direction	SW
D8	11 Apr 2015	Wave Height Low (ft)	1
D8	11 Apr 2015	High Tide (ft)	3.1
D8	11 Apr 2015	High Tide Time	1648
D8	11 Apr 2015	Low Tide (ft)	0.4
D8	11 Apr 2015	Low Tide Time	951
D8	11 Apr 2015	Comments	Kelp; Seagrass; Water turbid
D8	17 Apr 2015	Arrive Time	1017
D8	17 Apr 2015	Weather	Sunny
D8	17 Apr 2015	Wind Speed (kts)	3
D8	17 Apr 2015	Wind Dir	SW
D8	17 Apr 2015	Animal Life	None
D8	17 Apr 2015	Floatables	None
D8	17 Apr 2015	Water Color	Green
D8	17 Apr 2015	Current Direction	SW
D8	17 Apr 2015	Wave Height Low (ft)	4
D8	17 Apr 2015	High Tide (ft)	5.1
D8	17 Apr 2015	High Tide Time	849
D8	17 Apr 2015	Low Tide (ft)	-0.2
D8	17 Apr 2015	Low Tide Time	1455
D8	17 Apr 2015	Comments	Kelp; Seagrass; Water turbid
D8	23 Apr 2015	Arrive Time	913
D8	23 Apr 2015	Weather	Cloudy
D8	23 Apr 2015	Wind Speed (kts)	1.3
D8	23 Apr 2015	Wind Dir	S
D8	23 Apr 2015	Animal Life	None
D8	23 Apr 2015	Floatables	None
D8	23 Apr 2015	Water Color	Green
D8	23 Apr 2015	Current Direction	S
D8	23 Apr 2015	Wave Height Low (ft)	2
D8	23 Apr 2015	High Tide (ft)	3.3
D8	23 Apr 2015	High Tide Time	1431
D8	23 Apr 2015	Low Tide (ft)	0
D8	23 Apr 2015	Low Tide Time	749
D8	23 Apr 2015	Comments	Kelp; Seagrass; Water clear
D8	29 Apr 2015	Arrive Time	933
D8	29 Apr 2015	Weather	Sunny
D8	29 Apr 2015	Wind Speed (kts)	2.9
D8	29 Apr 2015	Wind Dir	SW

Station	Date	Parameter	Value
D8	29 Apr 2015	Animal Life	2 Dogs
D8	29 Apr 2015	Floatables	None
D8	29 Apr 2015	Water Color	Red
D8	29 Apr 2015	Current Direction	SW
D8	29 Apr 2015	Wave Height Low (ft)	3
D8	29 Apr 2015	High Tide (ft)	4
D8	29 Apr 2015	High Tide Time	710
D8	29 Apr 2015	Low Tide (ft)	0.7
D8	29 Apr 2015	Low Tide Time	1323
D8	29 Apr 2015	Comments	Kelp; Seagrass; Algae; 2 Persons; Water turbid; A lot of red algae
D9	05 Apr 2015	Arrive Time	810
D9	05 Apr 2015	Weather	Partly Cloudy
D9	05 Apr 2015	Wind Speed (kts)	3
D9	05 Apr 2015	Wind Dir	E
D9	05 Apr 2015	Animal Life	7 Seagulls
D9	05 Apr 2015	Floatables	None
D9	05 Apr 2015	Water Color	Green
D9	05 Apr 2015	Current Direction	E
D9	05 Apr 2015	Wave Height Low (ft)	3
D9	05 Apr 2015	High Tide (ft)	4.3
D9	05 Apr 2015	High Tide Time	1025
D9	05 Apr 2015	Low Tide (ft)	0
D9	05 Apr 2015	Low Tide Time	426
D9	05 Apr 2015	Comments	Kelp; Seagrass; Water turbid
D9	11 Apr 2015	Arrive Time	905
D9	11 Apr 2015	Weather	Sunny
D9	11 Apr 2015	Wind Speed (kts)	3.3
D9	11 Apr 2015	Wind Dir	SW
D9	11 Apr 2015	Animal Life	None
D9	11 Apr 2015	Floatables	None
D9	11 Apr 2015	Water Color	Green
D9	11 Apr 2015	Current Direction	SW
D9	11 Apr 2015	Wave Height Low (ft)	1
D9	11 Apr 2015	High Tide (ft)	4.3
D9	11 Apr 2015	High Tide Time	151
D9	11 Apr 2015	Low Tide (ft)	0.4
D9	11 Apr 2015	Low Tide Time	951
D9	11 Apr 2015	Comments	Kelp; Seagrass; Algae; Water clear
D9	17 Apr 2015	Arrive Time	957
D9	17 Apr 2015	Weather	Sunny
D9	17 Apr 2015	Wind Speed (kts)	344
D9	17 Apr 2015	Wind Dir	SW
D9	17 Apr 2015	Animal Life	None
D9	17 Apr 2015	Floatables	None
D9	17 Apr 2015	Water Color	Green

Station	Date	Parameter	Value
D9	17 Apr 2015	Current Direction	SW
D9	17 Apr 2015	Wave Height Low (ft)	4
D9	17 Apr 2015	High Tide (ft)	5.1
D9	17 Apr 2015	High Tide Time	849
D9	17 Apr 2015	Low Tide (ft)	-0.2
D9	17 Apr 2015	Low Tide Time	1455
D9	17 Apr 2015	Comments	Kelp; Seagrass; 2 Surfers; Water turbid
D9	23 Apr 2015	Arrive Time	850
D9	23 Apr 2015	Weather	Cloudy
D9	23 Apr 2015	Wind Speed (kts)	1.9
D9	23 Apr 2015	Wind Dir	S
D9	23 Apr 2015	Animal Life	None
D9	23 Apr 2015	Floatables	None
D9	23 Apr 2015	Water Color	Green
D9	23 Apr 2015	Current Direction	S
D9	23 Apr 2015	Wave Height Low (ft)	2
D9	23 Apr 2015	High Tide (ft)	3.3
D9	23 Apr 2015	High Tide Time	1431
D9	23 Apr 2015	Low Tide (ft)	0
D9	23 Apr 2015	Low Tide Time	749
D9	23 Apr 2015	Comments	Kelp; Seagrass; Algae; Water clear
D9	29 Apr 2015	Arrive Time	924
D9	29 Apr 2015	Weather	Sunny
D9	29 Apr 2015	Wind Speed (kts)	1.8
D9	29 Apr 2015	Wind Dir	W
D9	29 Apr 2015	Animal Life	None
D9	29 Apr 2015	Floatables	None
D9	29 Apr 2015	Water Color	Green
D9	29 Apr 2015	Current Direction	W
D9	29 Apr 2015	Wave Height Low (ft)	3
D9	29 Apr 2015	High Tide (ft)	4
D9	29 Apr 2015	High Tide Time	710
D9	29 Apr 2015	Low Tide (ft)	0.7
D9	29 Apr 2015	Low Tide Time	1323
D9	29 Apr 2015	Comments	Water clear
D10	05 Apr 2015	Arrive Time	752
D10	05 Apr 2015	Weather	Partly Cloudy
D10	05 Apr 2015	Wind Speed (kts)	3
D10	05 Apr 2015	Wind Dir	SE
D10	05 Apr 2015	Animal Life	7 Pigeons; 20 Seagulls
D10	05 Apr 2015	Floatables	None
D10	05 Apr 2015	Water Color	Green
D10	05 Apr 2015	Current Direction	SE
D10	05 Apr 2015	Wave Height Low (ft)	3
D10	05 Apr 2015	High Tide (ft)	4.3
D10	05 Apr 2015	High Tide Time	1025

Station	Date	Parameter	Value
D10	05 Apr 2015	Low Tide (ft)	0
D10	05 Apr 2015	Low Tide Time	426
D10	05 Apr 2015	Comments	Kelp; Seagrass; 7 Surfers; Water turbid
D10	11 Apr 2015	Arrive Time	856
D10	11 Apr 2015	Weather	Sunny
D10	11 Apr 2015	Wind Speed (kts)	2.1
D10	11 Apr 2015	Wind Dir	S
D10	11 Apr 2015	Animal Life	None
D10	11 Apr 2015	Floatables	None
D10	11 Apr 2015	Water Color	Green
D10	11 Apr 2015	Current Direction	S
D10	11 Apr 2015	Wave Height Low (ft)	2
D10	11 Apr 2015	High Tide (ft)	4.3
D10	11 Apr 2015	High Tide Time	151
D10	11 Apr 2015	Low Tide (ft)	0.4
D10	11 Apr 2015	Low Tide Time	951
D10	11 Apr 2015	Comments	2 Surfers; Water clear
D10	17 Apr 2015	Arrive Time	934
D10	17 Apr 2015	Weather	Sunny
D10	17 Apr 2015	Wind Speed (kts)	3
D10	17 Apr 2015	Wind Dir	SW
D10	17 Apr 2015	Animal Life	None
D10	17 Apr 2015	Floatables	None
D10	17 Apr 2015	Water Color	Green
D10	17 Apr 2015	Current Direction	SW
D10	17 Apr 2015	Wave Height Low (ft)	4
D10	17 Apr 2015	High Tide (ft)	5.1
D10	17 Apr 2015	High Tide Time	849
D10	17 Apr 2015	Low Tide (ft)	-0.2
D10	17 Apr 2015	Low Tide Time	1455
D10	17 Apr 2015	Comments	Kelp; Seagrass; 2 Surfers
D10	23 Apr 2015	Arrive Time	826
D10	23 Apr 2015	Weather	Cloudy
D10	23 Apr 2015	Wind Speed (kts)	3.4
D10	23 Apr 2015	Wind Dir	S
D10	23 Apr 2015	Animal Life	None
D10	23 Apr 2015	Floatables	None
D10	23 Apr 2015	Water Color	Green
D10	23 Apr 2015	Current Direction	S
D10	23 Apr 2015	Wave Height Low (ft)	3
D10	23 Apr 2015	High Tide (ft)	3.3
D10	23 Apr 2015	High Tide Time	1431
D10	23 Apr 2015	Low Tide (ft)	0
D10	23 Apr 2015	Low Tide Time	749
D10	23 Apr 2015	Comments	Seagrass; Water clear

Station	Date	Parameter	Value
D10	29 Apr 2015	Arrive Time	913
D10	29 Apr 2015	Weather	Sunny
D10	29 Apr 2015	Wind Speed (kts)	3.6
D10	29 Apr 2015	Wind Dir	W
D10	29 Apr 2015	Animal Life	None
D10	29 Apr 2015	Floatables	None
D10	29 Apr 2015	Water Color	Green
D10	29 Apr 2015	Current Direction	W
D10	29 Apr 2015	Wave Height Low (ft)	4
D10	29 Apr 2015	High Tide (ft)	4
D10	29 Apr 2015	High Tide Time	710
D10	29 Apr 2015	Low Tide (ft)	0.7
D10	29 Apr 2015	Low Tide Time	1323
D10	29 Apr 2015	Comments	Kelp; 4 Persons; 3 Surfers; Water clear
D11	05 Apr 2015	Arrive Time	740
D11	05 Apr 2015	Weather	Partly Cloudy
D11	05 Apr 2015	Wind Speed (kts)	3
D11	05 Apr 2015	Wind Dir	SW
D11	05 Apr 2015	Animal Life	None
D11	05 Apr 2015	Floatables	None
D11	05 Apr 2015	Water Color	Blue
D11	05 Apr 2015	Current Direction	SW
D11	05 Apr 2015	Wave Height Low (ft)	3
D11	05 Apr 2015	High Tide (ft)	4.3
D11	05 Apr 2015	High Tide Time	1025
D11	05 Apr 2015	Low Tide (ft)	0
D11	05 Apr 2015	Low Tide Time	426
D11	05 Apr 2015	Comments	Kelp; Seagrass; 2 Surfers; Water clear
D11	11 Apr 2015	Arrive Time	836
D11	11 Apr 2015	Weather	Sunny
D11	11 Apr 2015	Wind Speed (kts)	1.1
D11	11 Apr 2015	Wind Dir	E
D11	11 Apr 2015	Animal Life	None
D11	11 Apr 2015	Floatables	None
D11	11 Apr 2015	Water Color	Green
D11	11 Apr 2015	Current Direction	E
D11	11 Apr 2015	Wave Height Low (ft)	3
D11	11 Apr 2015	High Tide (ft)	4.3
D11	11 Apr 2015	High Tide Time	151
D11	11 Apr 2015	Low Tide (ft)	0.4
D11	11 Apr 2015	Low Tide Time	951
D11	11 Apr 2015	Comments	1 Person
D11	17 Apr 2015	Arrive Time	921
D11	17 Apr 2015	Weather	Sunny
D11	17 Apr 2015	Wind Speed (kts)	3
D11	17 Apr 2015	Wind Dir	SW

Station	Date	Parameter	Value
D11	17 Apr 2015	Animal Life	None
D11	17 Apr 2015	Floatables	None
D11	17 Apr 2015	Water Color	Green
D11	17 Apr 2015	Current Direction	SW
D11	17 Apr 2015	Wave Height Low (ft)	3
D11	17 Apr 2015	High Tide (ft)	5.1
D11	17 Apr 2015	High Tide Time	849
D11	17 Apr 2015	Low Tide (ft)	-0.2
D11	17 Apr 2015	Low Tide Time	1455
D11	17 Apr 2015	Comments	Kelp; Seagrass; 10 Surfers; Water turbid
D11	23 Apr 2015	Arrive Time	800
D11	23 Apr 2015	Weather	Cloudy
D11	23 Apr 2015	Wind Speed (kts)	2.1
D11	23 Apr 2015	Wind Dir	S
D11	23 Apr 2015	Animal Life	None
D11	23 Apr 2015	Floatables	None
D11	23 Apr 2015	Water Color	Green
D11	23 Apr 2015	Current Direction	S
D11	23 Apr 2015	Wave Height Low (ft)	3
D11	23 Apr 2015	High Tide (ft)	3.3
D11	23 Apr 2015	High Tide Time	1431
D11	23 Apr 2015	Low Tide (ft)	0
D11	23 Apr 2015	Low Tide Time	749
D11	23 Apr 2015	Comments	Kelp; Water clear
D11	29 Apr 2015	Arrive Time	858
D11	29 Apr 2015	Weather	Sunny
D11	29 Apr 2015	Wind Speed (kts)	1.7
D11	29 Apr 2015	Wind Dir	W
D11	29 Apr 2015	Animal Life	None
D11	29 Apr 2015	Floatables	None
D11	29 Apr 2015	Water Color	Green
D11	29 Apr 2015	Current Direction	W
D11	29 Apr 2015	Wave Height Low (ft)	3
D11	29 Apr 2015	High Tide (ft)	4
D11	29 Apr 2015	High Tide Time	710
D11	29 Apr 2015	Low Tide (ft)	0.7
D11	29 Apr 2015	Low Tide Time	1323
D11	29 Apr 2015	Comments	Kelp; 4 Surfers; Water clear
D12	05 Apr 2015	Arrive Time	719
D12	05 Apr 2015	Weather	Cloudy
D12	05 Apr 2015	Wind Speed (kts)	2
D12	05 Apr 2015	Wind Dir	W
D12	05 Apr 2015	Animal Life	7 Plovers; 20 Seagulls
D12	05 Apr 2015	Floatables	None
D12	05 Apr 2015	Water Color	Blue
D12	05 Apr 2015	Current Direction	W

Station	Date	Parameter	Value
D12	05 Apr 2015	Wave Height Low (ft)	3
D12	05 Apr 2015	High Tide (ft)	4.3
D12	05 Apr 2015	High Tide Time	1025
D12	05 Apr 2015	Low Tide (ft)	0
D12	05 Apr 2015	Low Tide Time	426
D12	05 Apr 2015	Comments	Kelp; Seagrass; 2 Surfers; 3 Fishermen; Water clear; Trash
D12	11 Apr 2015	Arrive Time	813
D12	11 Apr 2015	Weather	Sunny
D12	11 Apr 2015	Wind Speed (kts)	2.7
D12	11 Apr 2015	Wind Dir	E
D12	11 Apr 2015	Animal Life	None
D12	11 Apr 2015	Floatables	None
D12	11 Apr 2015	Water Color	Green
D12	11 Apr 2015	Current Direction	E
D12	11 Apr 2015	Wave Height Low (ft)	2
D12	11 Apr 2015	High Tide (ft)	4.3
D12	11 Apr 2015	High Tide Time	151
D12	11 Apr 2015	Low Tide (ft)	0.4
D12	11 Apr 2015	Low Tide Time	951
D12	11 Apr 2015	Comments	2 Joggers; 3 Persons; Water clear
D12	17 Apr 2015	Arrive Time	902
D12	17 Apr 2015	Weather	Sunny
D12	17 Apr 2015	Wind Speed (kts)	3
D12	17 Apr 2015	Wind Dir	SW
D12	17 Apr 2015	Animal Life	None
D12	17 Apr 2015	Floatables	None
D12	17 Apr 2015	Water Color	Green
D12	17 Apr 2015	Current Direction	SW
D12	17 Apr 2015	Wave Height Low (ft)	3
D12	17 Apr 2015	High Tide (ft)	5.1
D12	17 Apr 2015	High Tide Time	849
D12	17 Apr 2015	Low Tide (ft)	-0.2
D12	17 Apr 2015	Low Tide Time	1455
D12	17 Apr 2015	Comments	Kelp; Seagrass; Water turbid
D12	23 Apr 2015	Arrive Time	745
D12	23 Apr 2015	Weather	Cloudy
D12	23 Apr 2015	Wind Speed (kts)	3.3
D12	23 Apr 2015	Wind Dir	S
D12	23 Apr 2015	Animal Life	None
D12	23 Apr 2015	Floatables	None
D12	23 Apr 2015	Water Color	Green
D12	23 Apr 2015	Current Direction	S
D12	23 Apr 2015	Wave Height Low (ft)	1
D12	23 Apr 2015	High Tide (ft)	3.3
D12	23 Apr 2015	High Tide Time	1431

Station	Date	Parameter	Value
D12	23 Apr 2015	Low Tide (ft)	0
D12	23 Apr 2015	Low Tide Time	749
D12	23 Apr 2015	Comments	Kelp; Water clear
D12	29 Apr 2015	Arrive Time	842
D12	29 Apr 2015	Weather	Sunny
D12	29 Apr 2015	Wind Speed (kts)	1.7
D12	29 Apr 2015	Wind Dir	W
D12	29 Apr 2015	Animal Life	1 Dog
D12	29 Apr 2015	Floatables	None
D12	29 Apr 2015	Water Color	Green
D12	29 Apr 2015	Current Direction	W
D12	29 Apr 2015	Wave Height Low (ft)	3
D12	29 Apr 2015	High Tide (ft)	4
D12	29 Apr 2015	High Tide Time	710
D12	29 Apr 2015	Low Tide (ft)	0.7
D12	29 Apr 2015	Low Tide Time	1323
D12	29 Apr 2015	Comments	Kelp; 3 Persons; Water clear

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Kelp Stations

Table 3.1

Summary of compliance with the 2009 Ocean Plan's 30-day Geometric Mean standard for total coliforms at the PLOO kelp stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >1,000 CFU/100 mL exceed the standard.

Date	A1	A6	A7	C4	C5	C6	C7	C8
01 Apr 2015	5	4	14	2	2	2	2	3
02 Apr 2015	6	4	10	2	2	2	2	3
03 Apr 2015	6	4	10	2	2	2	2	3
04 Apr 2015	6	4	10	2	2	2	2	3
05 Apr 2015	6	4	10	2	2	2	2	3
06 Apr 2015	7	5	6	2	2	2	2	3
07 Apr 2015	7	5	6	2	2	2	2	3
08 Apr 2015	7	5	6	2	2	2	2	3
09 Apr 2015	7	5	6	2	2	2	2	3
10 Apr 2015	5	3	4	3	2	2	2	3
11 Apr 2015	5	3	4	3	2	2	2	3
12 Apr 2015	5	3	4	3	2	2	2	3
13 Apr 2015	5	3	4	3	2	2	2	3
14 Apr 2015	5	3	4	3	2	2	2	3
15 Apr 2015	4	3	3	2	2	2	2	3
16 Apr 2015	5	3	4	3	2	2	2	3
17 Apr 2015	5	3	4	3	2	2	2	3
18 Apr 2015	5	3	4	3	2	2	2	3
19 Apr 2015	5	3	4	3	2	2	2	3
20 Apr 2015	5	3	4	3	2	2	2	3
21 Apr 2015	4	3	3	2	2	2	3	3
22 Apr 2015	4	4	3	3	2	2	3	3
23 Apr 2015	4	4	3	3	2	2	3	3
24 Apr 2015	4	4	3	3	2	2	3	3
25 Apr 2015	3*	3*	2*	3*	2*	2*	3*	3*
26 Apr 2015	3*	3*	2*	3*	2*	2*	3*	3*
27 Apr 2015	3*	3*	2*	3*	2*	2*	3*	3*
28 Apr 2015	4	4	3	3	2	2	3	3
29 Apr 2015	4	4	3	3	2	2	3	3
30 Apr 2015	4	4	3	3	2	2	3	3

* Geometric mean calculated using an n<5

Table 3.2

Summary of compliance with the 2009 Ocean Plan's 30-day Geometric Mean standard for fecal coliform at the PLOO kelp stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >200 CFU/100 mL exceed the standard.

Date	A1	A6	A7	C4	C5	C6	C7	C8
01 Apr 2015	2	2	3	2	2	2	2	2
02 Apr 2015	2	2	3	2	2	2	2	2
03 Apr 2015	2	2	3	2	2	2	2	2
04 Apr 2015	2	2	3	2	2	2	2	2
05 Apr 2015	2	2	3	2	2	2	2	2
06 Apr 2015	2	2	2	2	2	2	2	2
07 Apr 2015	2	2	2	2	2	2	2	2
08 Apr 2015	2	2	2	2	2	2	2	2
09 Apr 2015	2	2	2	2	2	2	2	2
10 Apr 2015	2	2	2	2	2	2	2	2
11 Apr 2015	2	2	2	2	2	2	2	2
12 Apr 2015	2	2	2	2	2	2	2	2
13 Apr 2015	2	2	2	2	2	2	2	2
14 Apr 2015	2	2	2	2	2	2	2	2
15 Apr 2015	2	2	2	2	2	2	2	2
16 Apr 2015	2	2	2	2	2	2	2	2
17 Apr 2015	2	2	2	2	2	2	2	2
18 Apr 2015	2	2	2	2	2	2	2	2
19 Apr 2015	2	2	2	2	2	2	2	2
20 Apr 2015	2	2	2	2	2	2	2	2
21 Apr 2015	2	2	2	2	2	2	2	2
22 Apr 2015	2	2	2	2	2	2	2	2
23 Apr 2015	2	2	2	2	2	2	2	2
24 Apr 2015	2	2	2	2	2	2	2	2
25 Apr 2015	2*	2*	2*	2*	2*	2*	2*	2*
26 Apr 2015	2*	2*	2*	2*	2*	2*	2*	2*
27 Apr 2015	2*	2*	2*	2*	2*	2*	2*	2*
28 Apr 2015	2	2	2	2	2	2	2	2
29 Apr 2015	2	2	2	2	2	2	2	2
30 Apr 2015	2	2	2	2	2	2	2	2

* Geometric mean calculated using an n<5

Table 3.3

Summary of compliance with the 2009 Ocean Plan's 30-day Geometric Mean standard for *Enterococcus* at the PLOO kelp stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >35 CFU/100 mL exceed the standard.

Date	A1	A6	A7	C4	C5	C6	C7	C8
01 Apr 2015	2	2	3	2	2	2	2	2
02 Apr 2015	2	2	3	2	2	2	2	2
03 Apr 2015	2	2	3	2	2	2	2	2
04 Apr 2015	2	2	3	2	2	2	2	2
05 Apr 2015	2	2	3	2	2	2	2	2
06 Apr 2015	2	2	3	2	2	2	2	2
07 Apr 2015	2	2	3	2	2	2	2	2
08 Apr 2015	2	2	3	2	2	2	2	2
09 Apr 2015	2	2	3	2	2	2	2	2
10 Apr 2015	2	2	2	2	2	2	2	2
11 Apr 2015	2	2	2	2	2	2	2	2
12 Apr 2015	2	2	2	2	2	2	2	2
13 Apr 2015	2	2	2	2	2	2	2	2
14 Apr 2015	2	2	2	2	2	2	2	2
15 Apr 2015	2	2	2	2	2	2	2	2
16 Apr 2015	2	2	2	2	2	2	2	2
17 Apr 2015	2	2	2	2	2	2	2	2
18 Apr 2015	2	2	2	2	2	2	2	2
19 Apr 2015	2	2	2	2	2	2	2	2
20 Apr 2015	2	2	2	2	2	2	2	2
21 Apr 2015	2	2	2	2	2	2	2	2
22 Apr 2015	2	2	2	2	2	2	2	2
23 Apr 2015	2	2	2	2	2	2	2	2
24 Apr 2015	2	2	2	2	2	2	2	2
25 Apr 2015	2*	2*	2*	2*	2*	2*	2*	2*
26 Apr 2015	2*	2*	2*	2*	2*	2*	2*	2*
27 Apr 2015	2*	2*	2*	2*	2*	2*	2*	2*
28 Apr 2015	2	2	2	2	2	2	2	2
29 Apr 2015	2	2	2	2	2	2	2	2
30 Apr 2015	2	2	2	2	2	2	2	2

* Geometric mean calculated using an n<5

Table 3.4

Summary of compliance at the PLOO kelp stations with the 2009 Ocean Plan's Single Sample Maximum standard for total coliform bacteria, which states that total coliform density shall not exceed 10,000 CFU/100 mL.

Date	A1	A6	A7	C4	C5	C6	C7	C8
02 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
10 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
15 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
21 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
28 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.5

Summary of compliance at the PLOO kelp stations with the 2009 Ocean Plan's Single Sample Maximum standard for fecal coliform bacteria, which states that fecal coliform density shall not exceed 400 CFU/100 mL.

Date	A1	A6	A7	C4	C5	C6	C7	C8
02 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
10 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
15 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
21 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
28 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.6

Summary of compliance at the PLOO kelp stations with the 2009 Ocean Plan's Single Sample Maximum standard for *Enterococcus* bacteria, which states that *Enterococcus* density shall not exceed 104 CFU/100 mL.

Date	A1	A6	A7	C4	C5	C6	C7	C8
02 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
10 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
15 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
21 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
28 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.7

Summary of compliance at the PLOO kelp stations with the 2009 Ocean Plan's Single Sample Maximum standard for total coliforms and the fecal/total coliform ratio (F:T), which states that total coliform density shall not exceed 1,000 CFU/100 mL when F:T > 0.1.

Date	A1	A6	A7	C4	C5	C6	C7	C8
02 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
10 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
15 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
21 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
28 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.8

Summary of water quality parameters at the PLOO kelp stations for each sample date. Densities of total coliform (Total), fecal coliform (Fecal) and *Enterococcus* (Entero) bacteria are reported as CFU/100 mL; the fecal:total coliform ratio (F:T) is unitless; ammonium (N-NH₃) values are reported as mL/L; values for temperature (Temp, °C), transmissivity (XMS, %), dissolved oxygen (DO, mg/L), salinity (Sal, ppt) and pH were extracted from CTD profile data for depths closest to those at which the bacteriological samples were collected. Comments follow the data summary.

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	N-NH ₃	Temp	XMS	DO	Sal	pH
A1	02 Apr 2015	802	1	<2	<2	2e	1.0	ns	16.6	82.33	7.7	33.32	8.1
A1	02 Apr 2015	802	12	14e	<2	<2	0.1	ns	12.8	84.65	6.5	33.34	8.0
A1	02 Apr 2015	802	18	8e	4e	<2	0.5	ns	12.1	86.66	6.1	33.36	8.0
A1	10 Apr 2015	753	1	<2	<2	<2	1.0	ns	15.2	77.20	8.4	33.37	8.0
A1	10 Apr 2015	753	12	<2	<2	<2	1.0	ns	12.2	86.05	6.3	33.36	7.9
A1	10 Apr 2015	753	18	2e	<2	<2	1.0	ns	11.1	90.35	5.6	33.43	7.8
A1	15 Apr 2015	817	1	<2	<2	<2	1.0	ns	15.8	81.13	9.0	33.36	8.2
A1	15 Apr 2015	817	12	<2	<2	<2	1.0	ns	12.6	83.78	6.9	33.34	8.0
A1	15 Apr 2015	817	18	<2	<2	<2	1.0	ns	11.5	84.99	5.8	33.41	7.9
A1	21 Apr 2015	811	1	<2	<2	<2	1.0	ns	15.1	84.67	8.7	33.28	8.2
A1	21 Apr 2015	811	12	<2	<2	<2	1.0	ns	12.7	85.37	7.3	33.33	8.0
A1	21 Apr 2015	811	18	<2	<2	<2	1.0	ns	11.6	88.58	6.2	33.40	7.9
A1	28 Apr 2015	758	1	<20	<2	<2	0.1	ns	17.2	83.04	8.6	33.35	8.2
A1	28 Apr 2015	758	12	2e	<2	<2	1.0	ns	13.0	86.55	7.0	33.30	8.1
A1	28 Apr 2015	758	18	12e	2e	<2	0.2	ns	11.2	89.00	5.6	33.39	7.9
C4	02 Apr 2015	954	1	<2	<2	<2	1.0	ns	16.4	70.81	7.7	33.32	8.2
C4	02 Apr 2015	954	3	<2	<2	<2	1.0	ns	16.3	73.58	7.7	33.32	8.2
C4	02 Apr 2015	954	9	<2	2e	<2	1.0	ns	16.1	71.19	7.4	33.32	8.1
C4	10 Apr 2015	940	1	2e	<2	<2	1.0	ns	15.4	79.01	8.1	33.37	8.2
C4	10 Apr 2015	940	3	2e	<2	<2	1.0	ns	15.1	77.18	8.1	33.38	8.2
C4	10 Apr 2015	940	9	16e	<2	<2	0.1	ns	12.4	88.47	6.5	33.35	8.0
C4	15 Apr 2015	1012	1	<2	<2	<2	1.0	ns	16.5	79.84	8.4	33.38	8.2
C4	15 Apr 2015	1012	3	<2	<2	<2	1.0	ns	16.3	78.91	8.6	33.37	8.2
C4	15 Apr 2015	1012	9	2e	4e	<2	2.0	ns	13.3	77.20	6.9	33.39	8.1
C4	21 Apr 2015	1027	1	<2	<2	<2	1.0	ns	17.4	84.64	8.5	33.36	8.2
C4	21 Apr 2015	1027	3	<2	<2	<2	1.0	ns	17.2	84.75	8.5	33.34	8.2
C4	21 Apr 2015	1027	9	<2	<2	<2	1.0	ns	13.7	86.73	7.4	33.34	8.1
C4	28 Apr 2015	1002	1	<2	<2	<2	1.0	ns	17.5	80.81	7.3	33.35	8.2
C4	28 Apr 2015	1002	3	<2	<2	<2	1.0	ns	17.2	79.81	7.4	33.35	8.2
C4	28 Apr 2015	1002	9	<2	<2	<2	1.0	ns	14.3	81.70	6.8	33.31	8.1
C5	02 Apr 2015	941	1	<2	<2	<2	1.0	ns	16.9	62.90	7.3	33.34	8.1
C5	02 Apr 2015	941	3	<2	<2	<2	1.0	ns	16.9	62.54	7.3	33.33	8.1
C5	02 Apr 2015	941	9	<2	<2	<2	1.0	ns	15.9	61.51	6.6	33.31	8.1
C5	10 Apr 2015	928	1	<2	<2	<2	1.0	ns	15.5	80.18	8.0	33.38	8.2
C5	10 Apr 2015	928	3	<2	<2	<2	1.0	ns	15.4	80.08	8.0	33.37	8.1
C5	10 Apr 2015	928	9	<2	<2	<2	1.0	ns	13.5	81.70	7.7	33.37	8.1

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	N-NH3	Temp	XMS	DO	Sal	pH
C5	15 Apr 2015	959	1	<2	<2	<2	1.0	ns	16.9	68.86	7.7	33.40	8.2
C5	15 Apr 2015	959	3	2e	<2	<2	1.0	ns	16.2	68.18	7.5	33.36	8.2
C5	15 Apr 2015	959	9	4e	<2	<2	0.5	ns	12.2	72.70	6.4	33.37	8.0
C5	21 Apr 2015	1011	1	<2	<2	<2	1.0	ns	17.1	84.24	8.4	33.36	8.2
C5	21 Apr 2015	1011	3	<2	<2	<2	1.0	ns	15.2	84.34	7.9	33.31	8.2
C5	21 Apr 2015	1011	9	<2	<2	<2	1.0	ns	13.9	88.72	7.8	33.35	8.1
C5	28 Apr 2015	950	1	<2	<2	<2	1.0	ns	17.3	81.88	7.5	33.34	8.2
C5	28 Apr 2015	950	3	<2	<2	<2	1.0	ns	17.1	80.55	7.6	33.34	8.2
C5	28 Apr 2015	950	9	<2	<2	<2	1.0	ns	13.9	86.45	6.7	33.32	8.1
A6	02 Apr 2015	833	1	<2	<2	<2	1.0	ns	16.6	77.18	7.8	33.33	8.2
A6	02 Apr 2015	833	12	<2	2e	<2	1.0	ns	12.4	87.02	6.5	33.33	8.0
A6	02 Apr 2015	833	18	10e	<2	<2	0.2	ns	11.7	86.10	5.5	33.37	8.0
A6	10 Apr 2015	823	1	<2	<2	<2	1.0	ns	15.6	76.10	8.3	33.37	8.2
A6	10 Apr 2015	823	12	<2	<2	<2	1.0	ns	13.1	83.74	6.8	33.36	8.0
A6	10 Apr 2015	823	18	<2	<2	<2	1.0	ns	11.4	89.32	5.6	33.44	7.9
A6	15 Apr 2015	851	1	<2	<2	<2	1.0	ns	16.7	79.70	8.2	33.40	8.2
A6	15 Apr 2015	851	12	2e	<2	<2	1.0	ns	12.8	84.19	7.3	33.38	8.1
A6	15 Apr 2015	851	18	8e	<2	2e	0.2	ns	11.1	87.91	5.7	33.45	7.9
A6	21 Apr 2015	855	1	<2	<2	8e	1.0	ns	17.3	85.41	8.6	33.35	8.2
A6	21 Apr 2015	855	12	8e	<2	<2	0.2	ns	11.6	88.91	6.3	33.37	8.0
A6	21 Apr 2015	855	18	<2	<2	<2	1.0	ns	11.4	89.88	5.9	33.40	7.9
A6	28 Apr 2015	835	1	<2	<2	<2	1.0	ns	17.2	84.48	7.9	33.34	8.2
A6	28 Apr 2015	835	12	<2	<2	<2	1.0	ns	15.1	84.21	7.5	33.32	8.1
A6	28 Apr 2015	835	18	8e	2e	<2	0.2	ns	12.5	88.31	5.2	33.34	8.0
C6	02 Apr 2015	928	1	<2	<2	<2	1.0	ns	17.0	70.99	7.4	33.34	8.1
C6	02 Apr 2015	928	3	<2	<2	<2	1.0	ns	17.0	72.17	7.4	33.34	8.1
C6	02 Apr 2015	928	9	<2	<2	<2	1.0	ns	14.6	60.86	6.6	33.33	8.0
C6	10 Apr 2015	915	1	<2	<2	<2	1.0	ns	15.4	80.53	7.8	33.38	8.1
C6	10 Apr 2015	915	3	<2	<2	<2	1.0	ns	15.2	80.02	8.1	33.37	8.2
C6	10 Apr 2015	915	9	<2	<2	<2	1.0	ns	12.6	86.52	7.2	33.38	8.0
C6	15 Apr 2015	945	1	<2	<2	<2	1.0	ns	16.7	76.12	7.9	33.40	8.2
C6	15 Apr 2015	945	3	2e	<2	<2	1.0	ns	16.5	76.94	7.9	33.40	8.2
C6	15 Apr 2015	945	9	2e	<2	<2	1.0	ns	12.5	80.24	6.9	33.37	8.0
C6	21 Apr 2015	956	1	<2	<2	<2	1.0	ns	17.5	84.22	8.6	33.36	8.2
C6	21 Apr 2015	956	3	<2	<2	<2	1.0	ns	17.2	84.37	8.4	33.30	8.2
C6	21 Apr 2015	956	9	<2	<2	<2	1.0	ns	14.0	87.17	7.5	33.33	8.1
C6	28 Apr 2015	936	1	<2	<2	<2	1.0	ns	17.3	84.46	7.8	33.34	8.2
C6	28 Apr 2015	936	3	<2	<2	<2	1.0	ns	17.1	84.36	8.0	33.33	8.2
C6	28 Apr 2015	936	9	2e	<2	<2	1.0	ns	14.0	85.39	6.7	33.32	8.0
A7	02 Apr 2015	817	1	2e	<2	<2	1.0	ns	16.9	76.35	7.7	33.31	8.1
A7	02 Apr 2015	817	12	<2	<2	<2	1.0	ns	13.1	85.62	7.0	33.29	8.1
A7	02 Apr 2015	817	18	2e	<2	<2	1.0	ns	12.1	87.09	6.2	33.35	8.0
A7	10 Apr 2015	809	1	<2	<2	<2	1.0	ns	15.8	76.93	7.1	33.30	8.2

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	N-NH3	Temp	XMS	DO	Sal	pH
A7	10 Apr 2015	809	12	<2	<2	<2	1.0	ns	13.2	81.36	7.3	33.40	8.1
A7	10 Apr 2015	809	18	4e	<2	<2	0.5	ns	11.2	89.96	5.6	33.45	7.9
A7	15 Apr 2015	833	1	<2	<2	<2	1.0	ns	15.9	80.60	8.6	33.37	8.2
A7	15 Apr 2015	833	12	<2	<2	<2	1.0	ns	13.6	82.06	7.8	33.35	8.1
A7	15 Apr 2015	833	18	<2	<2	<2	1.0	ns	11.8	87.06	6.2	33.36	8.0
A7	21 Apr 2015	830	1	<2	<2	<2	1.0	ns	17.4	85.72	8.4	33.34	8.2
A7	21 Apr 2015	830	12	2e	<2	<2	1.0	ns	11.9	88.76	6.5	33.35	8.0
A7	21 Apr 2015	830	18	4e	<2	<2	0.5	ns	11.6	89.77	6.1	33.38	8.0
A7	28 Apr 2015	814	1	<2	<2	<2	1.0	ns	17.3	81.58	8.6	33.34	8.2
A7	28 Apr 2015	814	12	<2	<2	<2	1.0	ns	13.3	86.68	7.1	33.28	8.1
A7	28 Apr 2015	814	18	14e	<2	2e	0.1	ns	11.6	88.05	5.9	33.35	8.0
C7	02 Apr 2015	849	1	<2	<2	<2	1.0	ns	17.2	69.08	8.1	33.33	8.2
C7	02 Apr 2015	849	12	<2	<2	<2	1.0	ns	13.1	86.19	6.9	33.31	8.1
C7	02 Apr 2015	849	18	<2	<2	<2	1.0	ns	12.5	83.61	6.1	33.35	8.0
C7	10 Apr 2015	842	1	<2	<2	<2	1.0	ns	16.2	78.50	8.4	33.38	8.2
C7	10 Apr 2015	842	12	<2	<2	2e	1.0	ns	12.3	83.64	6.4	33.37	8.0
C7	10 Apr 2015	842	18	6e	<2	<2	0.3	ns	11.4	90.10	5.5	33.41	7.9
C7	15 Apr 2015	913	1	<2	<2	<2	1.0	ns	16.1	72.57	8.2	33.39	8.2
C7	15 Apr 2015	913	12	2e	<2	<2	1.0	ns	11.6	88.45	6.2	33.39	8.0
C7	15 Apr 2015	913	18	<2	<2	<2	1.0	ns	11.2	85.80	5.6	33.44	7.9
C7	21 Apr 2015	908	1	<2	<2	<2	1.0	ns	17.2	86.06	8.5	33.34	8.2
C7	21 Apr 2015	908	12	<2	<2	<2	1.0	ns	13.2	84.32	7.4	33.32	8.1
C7	21 Apr 2015	908	18	20e	<2	<2	0.1	ns	12.5	86.60	6.5	33.35	8.0
C7	28 Apr 2015	855	1	<2	<2	<2	1.0	ns	17.4	85.91	8.3	33.34	8.2
C7	28 Apr 2015	855	12	<2	<2	<2	1.0	ns	15.1	83.64	7.4	33.29	8.1
C7	28 Apr 2015	855	18	<2	<2	<2	1.0	ns	11.7	87.56	5.9	33.34	8.0
C8	02 Apr 2015	907	1	<2	<2	<2	1.0	ns	17.1	79.14	8.1	33.33	8.2
C8	02 Apr 2015	907	12	<2	<2	<2	1.0	ns	13.1	85.29	6.6	33.33	8.0
C8	02 Apr 2015	907	18	6e	<2	<2	0.3	ns	12.7	85.15	6.3	33.34	8.0
C8	10 Apr 2015	856	1	<2	<2	<2	1.0	ns	16.0	77.71	8.0	33.36	8.2
C8	10 Apr 2015	856	12	<2	<2	<2	1.0	ns	12.6	80.99	6.8	33.34	8.1
C8	10 Apr 2015	856	18	<2	<2	<2	1.0	ns	11.5	88.81	5.6	33.42	7.9
C8	15 Apr 2015	926	1	<2	<2	<2	1.0	ns	17.0	77.74	8.6	33.39	8.2
C8	15 Apr 2015	926	12	<2	<2	<2	1.0	ns	11.8	87.60	5.9	33.40	8.0
C8	15 Apr 2015	926	18	16e	<2	<2	0.1	ns	11.2	88.93	5.7	33.44	7.9
C8	21 Apr 2015	929	1	<2	<2	<2	1.0	ns	17.1	84.17	8.8	33.34	8.1
C8	21 Apr 2015	929	12	<2	<2	<2	1.0	ns	13.6	81.87	7.6	33.33	8.0
C8	21 Apr 2015	929	18	<2	<2	<2	1.0	ns	12.5	88.46	6.5	33.35	7.9
C8	28 Apr 2015	915	1	<2	<2	<2	1.0	ns	17.1	86.52	8.0	33.34	8.2
C8	28 Apr 2015	915	12	<2	<2	<2	1.0	ns	14.4	88.26	8.1	33.25	8.2
C8	28 Apr 2015	915	18	2e	<2	<2	1.0	ns	12.5	87.61	7.1	33.28	8.1

ns = not sampled

Table 3.9

Summary of visual observations made during the month at the PLOO kelp stations for each sample date.

Station	Date	Parameter	Value
A1	02 Apr 2015	Depth (m)	19
A1	02 Apr 2015	Arrive Time	802
A1	02 Apr 2015	Depart Time	810
A1	02 Apr 2015	Air Temp (C)	16
A1	02 Apr 2015	Weather	Partly Cloudy
A1	02 Apr 2015	Visibility (mi)	8
A1	02 Apr 2015	Wind Speed (kts)	7
A1	02 Apr 2015	Wind Dir	NW
A1	02 Apr 2015	Water Color	Bluish-Green
A1	02 Apr 2015	Wave Ht Low (ft)	5
A1	02 Apr 2015	Wave Period (sec)	11
A1	02 Apr 2015	Sea State	Heavy chop
A1	02 Apr 2015	High Tide (ft)	4.67
A1	02 Apr 2015	High Tide Time	846
A1	02 Apr 2015	Low Tide (ft)	0.2
A1	02 Apr 2015	Low Tide Time	1503
A1	02 Apr 2015	Comments	Kelp
A1	10 Apr 2015	Depth (m)	18
A1	10 Apr 2015	Arrive Time	753
A1	10 Apr 2015	Depart Time	800
A1	10 Apr 2015	Air Temp (C)	15
A1	10 Apr 2015	Weather	Partly Cloudy
A1	10 Apr 2015	Visibility (mi)	7
A1	10 Apr 2015	Wind Speed (kts)	3
A1	10 Apr 2015	Wind Dir	SW
A1	10 Apr 2015	Water Color	Greenish-Blue
A1	10 Apr 2015	Wave Ht Low (ft)	3
A1	10 Apr 2015	Wave Period (sec)	9
A1	10 Apr 2015	Sea State	Calm
A1	10 Apr 2015	High Tide (ft)	2.87
A1	10 Apr 2015	High Tide Time	1510
A1	10 Apr 2015	Low Tide (ft)	0.46
A1	10 Apr 2015	Low Tide Time	830
A1	10 Apr 2015	Comments	Kelp; Kelp debris
A1	15 Apr 2015	Depth (m)	19
A1	15 Apr 2015	Arrive Time	817
A1	15 Apr 2015	Depart Time	826
A1	15 Apr 2015	Air Temp (C)	16
A1	15 Apr 2015	Weather	Fog
A1	15 Apr 2015	Visibility (mi)	2
A1	15 Apr 2015	Wind Speed (kts)	3
A1	15 Apr 2015	Wind Dir	S

Station	Date	Parameter	Value
A1	15 Apr 2015	Water Color	Green
A1	15 Apr 2015	Wave Ht Low (ft)	3
A1	15 Apr 2015	Wave Period (sec)	9
A1	15 Apr 2015	Sea State	Calm
A1	15 Apr 2015	High Tide (ft)	4.92
A1	15 Apr 2015	High Tide Time	707
A1	15 Apr 2015	Low Tide (ft)	-0.37
A1	15 Apr 2015	Low Tide Time	1336
A1	15 Apr 2015	Comments	Kelp
A1	21 Apr 2015	Depth (m)	18
A1	21 Apr 2015	Arrive Time	811
A1	21 Apr 2015	Depart Time	824
A1	21 Apr 2015	Air Temp (C)	16
A1	21 Apr 2015	Weather	Partly Cloudy
A1	21 Apr 2015	Visibility (mi)	5
A1	21 Apr 2015	Wind Speed (kts)	2
A1	21 Apr 2015	Wind Dir	S
A1	21 Apr 2015	Water Color	Green
A1	21 Apr 2015	Wave Ht Low (ft)	3
A1	21 Apr 2015	Wave Period (sec)	9
A1	21 Apr 2015	Sea State	Calm
A1	21 Apr 2015	High Tide (ft)	3.87
A1	21 Apr 2015	High Tide Time	1211
A1	21 Apr 2015	Low Tide (ft)	-0.79
A1	21 Apr 2015	Low Tide Time	556
A1	21 Apr 2015	Comments	Kelp; Boats
A1	28 Apr 2015	Depth (m)	18
A1	28 Apr 2015	Arrive Time	758
A1	28 Apr 2015	Depart Time	807
A1	28 Apr 2015	Air Temp (C)	18
A1	28 Apr 2015	Weather	Clear
A1	28 Apr 2015	Visibility (mi)	5
A1	28 Apr 2015	Wind Speed (kts)	1
A1	28 Apr 2015	Wind Dir	W
A1	28 Apr 2015	Water Color	Green
A1	28 Apr 2015	Wave Ht Low (ft)	2
A1	28 Apr 2015	Wave Period (sec)	9
A1	28 Apr 2015	Sea State	Calm
A1	28 Apr 2015	High Tide (ft)	3.84
A1	28 Apr 2015	High Tide Time	623
A1	28 Apr 2015	Low Tide (ft)	0.63
A1	28 Apr 2015	Low Tide Time	1251
A1	28 Apr 2015	Comments	Kelp
C4	02 Apr 2015	Depth (m)	11
C4	02 Apr 2015	Arrive Time	954
C4	02 Apr 2015	Depart Time	1001

Station	Date	Parameter	Value
C4	02 Apr 2015	Air Temp (C)	16
C4	02 Apr 2015	Weather	Partly Cloudy
C4	02 Apr 2015	Visibility (mi)	8
C4	02 Apr 2015	Wind Speed (kts)	4
C4	02 Apr 2015	Wind Dir	SE
C4	02 Apr 2015	Water Color	Green
C4	02 Apr 2015	Wave Ht Low (ft)	5
C4	02 Apr 2015	Wave Period (sec)	11
C4	02 Apr 2015	Sea State	Confused swell
C4	02 Apr 2015	High Tide (ft)	4.67
C4	02 Apr 2015	High Tide Time	846
C4	02 Apr 2015	Low Tide (ft)	0.2
C4	02 Apr 2015	Low Tide Time	1503
C4	02 Apr 2015	Comments	Kelp debris
C4	10 Apr 2015	Depth (m)	10
C4	10 Apr 2015	Arrive Time	940
C4	10 Apr 2015	Depart Time	945
C4	10 Apr 2015	Air Temp (C)	16
C4	10 Apr 2015	Weather	Partly Cloudy
C4	10 Apr 2015	Visibility (mi)	7
C4	10 Apr 2015	Wind Speed (kts)	0
C4	10 Apr 2015	Wind Dir	
C4	10 Apr 2015	Water Color	Greenish-Blue
C4	10 Apr 2015	Wave Ht Low (ft)	3
C4	10 Apr 2015	Wave Period (sec)	9
C4	10 Apr 2015	Sea State	Calm
C4	10 Apr 2015	High Tide (ft)	2.87
C4	10 Apr 2015	High Tide Time	1510
C4	10 Apr 2015	Low Tide (ft)	0.46
C4	10 Apr 2015	Low Tide Time	830
C4	10 Apr 2015	Comments	
C4	15 Apr 2015	Depth (m)	11
C4	15 Apr 2015	Arrive Time	1012
C4	15 Apr 2015	Depart Time	1021
C4	15 Apr 2015	Air Temp (C)	16
C4	15 Apr 2015	Weather	Clear
C4	15 Apr 2015	Visibility (mi)	10
C4	15 Apr 2015	Wind Speed (kts)	3
C4	15 Apr 2015	Wind Dir	NE
C4	15 Apr 2015	Water Color	Green
C4	15 Apr 2015	Wave Ht Low (ft)	4
C4	15 Apr 2015	Wave Period (sec)	9
C4	15 Apr 2015	Sea State	Calm
C4	15 Apr 2015	High Tide (ft)	4.92
C4	15 Apr 2015	High Tide Time	707
C4	15 Apr 2015	Low Tide (ft)	-0.37
C4	15 Apr 2015	Low Tide Time	1336

Station	Date	Parameter	Value
C4	15 Apr 2015	Comments	Brownish orange foam on surface possibly related to plankton; Seagrass; Kelp debris
C4	21 Apr 2015	Depth (m)	10
C4	21 Apr 2015	Arrive Time	1027
C4	21 Apr 2015	Depart Time	1035
C4	21 Apr 2015	Air Temp (C)	17
C4	21 Apr 2015	Weather	Overcast
C4	21 Apr 2015	Visibility (mi)	8
C4	21 Apr 2015	Wind Speed (kts)	2
C4	21 Apr 2015	Wind Dir	S
C4	21 Apr 2015	Water Color	Green
C4	21 Apr 2015	Wave Ht Low (ft)	3
C4	21 Apr 2015	Wave Period (sec)	9
C4	21 Apr 2015	Sea State	Calm
C4	21 Apr 2015	High Tide (ft)	3.87
C4	21 Apr 2015	High Tide Time	1211
C4	21 Apr 2015	Low Tide (ft)	-0.79
C4	21 Apr 2015	Low Tide Time	556
C4	21 Apr 2015	Comments	Kelp
C4	28 Apr 2015	Depth (m)	10
C4	28 Apr 2015	Arrive Time	1002
C4	28 Apr 2015	Depart Time	1012
C4	28 Apr 2015	Air Temp (C)	19
C4	28 Apr 2015	Weather	Clear
C4	28 Apr 2015	Visibility (mi)	9
C4	28 Apr 2015	Wind Speed (kts)	3
C4	28 Apr 2015	Wind Dir	W
C4	28 Apr 2015	Water Color	Green
C4	28 Apr 2015	Wave Ht Low (ft)	2
C4	28 Apr 2015	Wave Period (sec)	9
C4	28 Apr 2015	Sea State	Calm
C4	28 Apr 2015	High Tide (ft)	3.84
C4	28 Apr 2015	High Tide Time	623
C4	28 Apr 2015	Low Tide (ft)	0.63
C4	28 Apr 2015	Low Tide Time	1251
C4	28 Apr 2015	Comments	Kelp
C5	02 Apr 2015	Depth (m)	12
C5	02 Apr 2015	Arrive Time	941
C5	02 Apr 2015	Depart Time	948
C5	02 Apr 2015	Air Temp (C)	16
C5	02 Apr 2015	Weather	Partly Cloudy
C5	02 Apr 2015	Visibility (mi)	8
C5	02 Apr 2015	Wind Speed (kts)	5
C5	02 Apr 2015	Wind Dir	E
C5	02 Apr 2015	Water Color	Green
C5	02 Apr 2015	Wave Ht Low (ft)	5

Station	Date	Parameter	Value
C5	02 Apr 2015	Wave Period (sec)	11
C5	02 Apr 2015	Sea State	Confused swell
C5	02 Apr 2015	High Tide (ft)	4.67
C5	02 Apr 2015	High Tide Time	846
C5	02 Apr 2015	Low Tide (ft)	0.2
C5	02 Apr 2015	Low Tide Time	1503
C5	02 Apr 2015	Comments	
C5	10 Apr 2015	Depth (m)	9
C5	10 Apr 2015	Arrive Time	928
C5	10 Apr 2015	Depart Time	932
C5	10 Apr 2015	Air Temp (C)	16
C5	10 Apr 2015	Weather	Partly Cloudy
C5	10 Apr 2015	Visibility (mi)	7
C5	10 Apr 2015	Wind Speed (kts)	2
C5	10 Apr 2015	Wind Dir	SW
C5	10 Apr 2015	Water Color	Greenish-Blue
C5	10 Apr 2015	Wave Ht Low (ft)	3
C5	10 Apr 2015	Wave Period (sec)	9
C5	10 Apr 2015	Sea State	Calm
C5	10 Apr 2015	High Tide (ft)	2.87
C5	10 Apr 2015	High Tide Time	1510
C5	10 Apr 2015	Low Tide (ft)	0.46
C5	10 Apr 2015	Low Tide Time	830
C5	10 Apr 2015	Comments	
C5	15 Apr 2015	Depth (m)	10
C5	15 Apr 2015	Arrive Time	959
C5	15 Apr 2015	Depart Time	1007
C5	15 Apr 2015	Air Temp (C)	16
C5	15 Apr 2015	Weather	Clear
C5	15 Apr 2015	Visibility (mi)	10
C5	15 Apr 2015	Wind Speed (kts)	4
C5	15 Apr 2015	Wind Dir	S
C5	15 Apr 2015	Water Color	Green
C5	15 Apr 2015	Wave Ht Low (ft)	4
C5	15 Apr 2015	Wave Period (sec)	9
C5	15 Apr 2015	Sea State	Calm
C5	15 Apr 2015	High Tide (ft)	4.92
C5	15 Apr 2015	High Tide Time	707
C5	15 Apr 2015	Low Tide (ft)	-0.37
C5	15 Apr 2015	Low Tide Time	1336
C5	15 Apr 2015	Comments	Kelp
C5	21 Apr 2015	Depth (m)	10
C5	21 Apr 2015	Arrive Time	1011
C5	21 Apr 2015	Depart Time	1020
C5	21 Apr 2015	Air Temp (C)	17
C5	21 Apr 2015	Weather	Overcast

Station	Date	Parameter	Value
C5	21 Apr 2015	Visibility (mi)	8
C5	21 Apr 2015	Wind Speed (kts)	3
C5	21 Apr 2015	Wind Dir	NE
C5	21 Apr 2015	Water Color	Green
C5	21 Apr 2015	Wave Ht Low (ft)	3
C5	21 Apr 2015	Wave Period (sec)	9
C5	21 Apr 2015	Sea State	Calm
C5	21 Apr 2015	High Tide (ft)	3.87
C5	21 Apr 2015	High Tide Time	1211
C5	21 Apr 2015	Low Tide (ft)	-0.79
C5	21 Apr 2015	Low Tide Time	556
C5	21 Apr 2015	Comments	Kelp
C5	28 Apr 2015	Depth (m)	11
C5	28 Apr 2015	Arrive Time	950
C5	28 Apr 2015	Depart Time	957
C5	28 Apr 2015	Air Temp (C)	19
C5	28 Apr 2015	Weather	Clear
C5	28 Apr 2015	Visibility (mi)	9
C5	28 Apr 2015	Wind Speed (kts)	4
C5	28 Apr 2015	Wind Dir	SE
C5	28 Apr 2015	Water Color	Green
C5	28 Apr 2015	Wave Ht Low (ft)	2
C5	28 Apr 2015	Wave Period (sec)	9
C5	28 Apr 2015	Sea State	Calm
C5	28 Apr 2015	High Tide (ft)	3.84
C5	28 Apr 2015	High Tide Time	623
C5	28 Apr 2015	Low Tide (ft)	0.63
C5	28 Apr 2015	Low Tide Time	1251
C5	28 Apr 2015	Comments	
A6	02 Apr 2015	Depth (m)	20
A6	02 Apr 2015	Arrive Time	833
A6	02 Apr 2015	Depart Time	840
A6	02 Apr 2015	Air Temp (C)	16
A6	02 Apr 2015	Weather	Partly Cloudy
A6	02 Apr 2015	Visibility (mi)	8
A6	02 Apr 2015	Wind Speed (kts)	6
A6	02 Apr 2015	Wind Dir	E
A6	02 Apr 2015	Water Color	Bluish-Green
A6	02 Apr 2015	Wave Ht Low (ft)	5
A6	02 Apr 2015	Wave Period (sec)	11
A6	02 Apr 2015	Sea State	Heavy chop
A6	02 Apr 2015	High Tide (ft)	4.67
A6	02 Apr 2015	High Tide Time	846
A6	02 Apr 2015	Low Tide (ft)	0.2
A6	02 Apr 2015	Low Tide Time	1503
A6	02 Apr 2015	Comments	Kelp

Station	Date	Parameter	Value
A6	10 Apr 2015	Depth (m)	18
A6	10 Apr 2015	Arrive Time	823
A6	10 Apr 2015	Depart Time	831
A6	10 Apr 2015	Air Temp (C)	15
A6	10 Apr 2015	Weather	Partly Cloudy
A6	10 Apr 2015	Visibility (mi)	7
A6	10 Apr 2015	Wind Speed (kts)	1
A6	10 Apr 2015	Wind Dir	W
A6	10 Apr 2015	Water Color	Greenish-Blue
A6	10 Apr 2015	Wave Ht Low (ft)	3
A6	10 Apr 2015	Wave Period (sec)	9
A6	10 Apr 2015	Sea State	Calm
A6	10 Apr 2015	High Tide (ft)	2.87
A6	10 Apr 2015	High Tide Time	1510
A6	10 Apr 2015	Low Tide (ft)	0.46
A6	10 Apr 2015	Low Tide Time	830
A6	10 Apr 2015	Comments	
A6	15 Apr 2015	Depth (m)	18
A6	15 Apr 2015	Arrive Time	851
A6	15 Apr 2015	Depart Time	903
A6	15 Apr 2015	Air Temp (C)	16
A6	15 Apr 2015	Weather	Fog
A6	15 Apr 2015	Visibility (mi)	2
A6	15 Apr 2015	Wind Speed (kts)	5
A6	15 Apr 2015	Wind Dir	S
A6	15 Apr 2015	Water Color	Green
A6	15 Apr 2015	Wave Ht Low (ft)	4
A6	15 Apr 2015	Wave Period (sec)	9
A6	15 Apr 2015	Sea State	Calm
A6	15 Apr 2015	High Tide (ft)	4.92
A6	15 Apr 2015	High Tide Time	707
A6	15 Apr 2015	Low Tide (ft)	-0.37
A6	15 Apr 2015	Low Tide Time	1336
A6	15 Apr 2015	Comments	Kelp
A6	21 Apr 2015	Depth (m)	19
A6	21 Apr 2015	Arrive Time	855
A6	21 Apr 2015	Depart Time	859
A6	21 Apr 2015	Air Temp (C)	17
A6	21 Apr 2015	Weather	Partly Cloudy
A6	21 Apr 2015	Visibility (mi)	5
A6	21 Apr 2015	Wind Speed (kts)	3
A6	21 Apr 2015	Wind Dir	SW
A6	21 Apr 2015	Water Color	Green
A6	21 Apr 2015	Wave Ht Low (ft)	3
A6	21 Apr 2015	Wave Period (sec)	9
A6	21 Apr 2015	Sea State	Calm
A6	21 Apr 2015	High Tide (ft)	3.87

Station	Date	Parameter	Value
A6	21 Apr 2015	High Tide Time	1211
A6	21 Apr 2015	Low Tide (ft)	-0.79
A6	21 Apr 2015	Low Tide Time	556
A6	21 Apr 2015	Comments	Kelp; Seagrass
A6	28 Apr 2015	Depth (m)	18
A6	28 Apr 2015	Arrive Time	835
A6	28 Apr 2015	Depart Time	847
A6	28 Apr 2015	Air Temp (C)	18
A6	28 Apr 2015	Weather	Clear
A6	28 Apr 2015	Visibility (mi)	5
A6	28 Apr 2015	Wind Speed (kts)	1
A6	28 Apr 2015	Wind Dir	SE
A6	28 Apr 2015	Water Color	Green
A6	28 Apr 2015	Wave Ht Low (ft)	2
A6	28 Apr 2015	Wave Period (sec)	9
A6	28 Apr 2015	Sea State	Calm
A6	28 Apr 2015	High Tide (ft)	3.84
A6	28 Apr 2015	High Tide Time	623
A6	28 Apr 2015	Low Tide (ft)	0.63
A6	28 Apr 2015	Low Tide Time	1251
A6	28 Apr 2015	Comments	Kelp; School of baitfish on station
C6	02 Apr 2015	Depth (m)	10
C6	02 Apr 2015	Arrive Time	928
C6	02 Apr 2015	Depart Time	934
C6	02 Apr 2015	Air Temp (C)	16
C6	02 Apr 2015	Weather	Partly Cloudy
C6	02 Apr 2015	Visibility (mi)	8
C6	02 Apr 2015	Wind Speed (kts)	8
C6	02 Apr 2015	Wind Dir	SE
C6	02 Apr 2015	Water Color	Bluish-Green
C6	02 Apr 2015	Wave Ht Low (ft)	5
C6	02 Apr 2015	Wave Period (sec)	11
C6	02 Apr 2015	Sea State	Confused swell
C6	02 Apr 2015	High Tide (ft)	4.67
C6	02 Apr 2015	High Tide Time	846
C6	02 Apr 2015	Low Tide (ft)	0.2
C6	02 Apr 2015	Low Tide Time	1503
C6	02 Apr 2015	Comments	Kelp
C6	10 Apr 2015	Depth (m)	9
C6	10 Apr 2015	Arrive Time	915
C6	10 Apr 2015	Depart Time	919
C6	10 Apr 2015	Air Temp (C)	16
C6	10 Apr 2015	Weather	Partly Cloudy
C6	10 Apr 2015	Visibility (mi)	7
C6	10 Apr 2015	Wind Speed (kts)	1
C6	10 Apr 2015	Wind Dir	NW

Station	Date	Parameter	Value
C6	10 Apr 2015	Water Color	Greenish-Blue
C6	10 Apr 2015	Wave Ht Low (ft)	3
C6	10 Apr 2015	Wave Period (sec)	9
C6	10 Apr 2015	Sea State	Calm
C6	10 Apr 2015	High Tide (ft)	2.87
C6	10 Apr 2015	High Tide Time	1510
C6	10 Apr 2015	Low Tide (ft)	0.46
C6	10 Apr 2015	Low Tide Time	830
C6	10 Apr 2015	Comments	
C6	15 Apr 2015	Depth (m)	9
C6	15 Apr 2015	Arrive Time	945
C6	15 Apr 2015	Depart Time	953
C6	15 Apr 2015	Air Temp (C)	16
C6	15 Apr 2015	Weather	Partly Cloudy
C6	15 Apr 2015	Visibility (mi)	7
C6	15 Apr 2015	Wind Speed (kts)	2
C6	15 Apr 2015	Wind Dir	SE
C6	15 Apr 2015	Water Color	Green
C6	15 Apr 2015	Wave Ht Low (ft)	4
C6	15 Apr 2015	Wave Period (sec)	9
C6	15 Apr 2015	Sea State	Calm
C6	15 Apr 2015	High Tide (ft)	4.92
C6	15 Apr 2015	High Tide Time	707
C6	15 Apr 2015	Low Tide (ft)	-0.37
C6	15 Apr 2015	Low Tide Time	1336
C6	15 Apr 2015	Comments	Kelp
C6	21 Apr 2015	Depth (m)	9
C6	21 Apr 2015	Arrive Time	956
C6	21 Apr 2015	Depart Time	1003
C6	21 Apr 2015	Air Temp (C)	17
C6	21 Apr 2015	Weather	Overcast
C6	21 Apr 2015	Visibility (mi)	8
C6	21 Apr 2015	Wind Speed (kts)	2
C6	21 Apr 2015	Wind Dir	N
C6	21 Apr 2015	Water Color	Green
C6	21 Apr 2015	Wave Ht Low (ft)	3
C6	21 Apr 2015	Wave Period (sec)	9
C6	21 Apr 2015	Sea State	Calm
C6	21 Apr 2015	High Tide (ft)	3.87
C6	21 Apr 2015	High Tide Time	1211
C6	21 Apr 2015	Low Tide (ft)	-0.79
C6	21 Apr 2015	Low Tide Time	556
C6	21 Apr 2015	Comments	Kelp
C6	28 Apr 2015	Depth (m)	9
C6	28 Apr 2015	Arrive Time	936
C6	28 Apr 2015	Depart Time	946

Station	Date	Parameter	Value
C6	28 Apr 2015	Air Temp (C)	19
C6	28 Apr 2015	Weather	Clear
C6	28 Apr 2015	Visibility (mi)	9
C6	28 Apr 2015	Wind Speed (kts)	1
C6	28 Apr 2015	Wind Dir	NW
C6	28 Apr 2015	Water Color	Green
C6	28 Apr 2015	Wave Ht Low (ft)	2
C6	28 Apr 2015	Wave Period (sec)	9
C6	28 Apr 2015	Sea State	Calm
C6	28 Apr 2015	High Tide (ft)	3.84
C6	28 Apr 2015	High Tide Time	623
C6	28 Apr 2015	Low Tide (ft)	0.63
C6	28 Apr 2015	Low Tide Time	1251
C6	28 Apr 2015	Comments	Kelp; Boats
A7	02 Apr 2015	Depth (m)	19
A7	02 Apr 2015	Arrive Time	817
A7	02 Apr 2015	Depart Time	826
A7	02 Apr 2015	Air Temp (C)	16
A7	02 Apr 2015	Weather	Partly Cloudy
A7	02 Apr 2015	Visibility (mi)	8
A7	02 Apr 2015	Wind Speed (kts)	8
A7	02 Apr 2015	Wind Dir	SW
A7	02 Apr 2015	Water Color	Bluish-Green
A7	02 Apr 2015	Wave Ht Low (ft)	5
A7	02 Apr 2015	Wave Period (sec)	11
A7	02 Apr 2015	Sea State	Heavy chop
A7	02 Apr 2015	High Tide (ft)	4.67
A7	02 Apr 2015	High Tide Time	846
A7	02 Apr 2015	Low Tide (ft)	0.2
A7	02 Apr 2015	Low Tide Time	1503
A7	02 Apr 2015	Comments	Kelp
A7	10 Apr 2015	Depth (m)	18
A7	10 Apr 2015	Arrive Time	809
A7	10 Apr 2015	Depart Time	817
A7	10 Apr 2015	Air Temp (C)	15
A7	10 Apr 2015	Weather	Partly Cloudy
A7	10 Apr 2015	Visibility (mi)	7
A7	10 Apr 2015	Wind Speed (kts)	2
A7	10 Apr 2015	Wind Dir	E
A7	10 Apr 2015	Water Color	Greenish-Blue
A7	10 Apr 2015	Wave Ht Low (ft)	3
A7	10 Apr 2015	Wave Period (sec)	9
A7	10 Apr 2015	Sea State	Calm
A7	10 Apr 2015	High Tide (ft)	2.87
A7	10 Apr 2015	High Tide Time	1510
A7	10 Apr 2015	Low Tide (ft)	0.46
A7	10 Apr 2015	Low Tide Time	830

Station	Date	Parameter	Value
A7	10 Apr 2015	Comments	
A7	15 Apr 2015	Depth (m)	8
A7	15 Apr 2015	Arrive Time	833
A7	15 Apr 2015	Depart Time	842
A7	15 Apr 2015	Air Temp (C)	16
A7	15 Apr 2015	Weather	Fog
A7	15 Apr 2015	Visibility (mi)	2
A7	15 Apr 2015	Wind Speed (kts)	3
A7	15 Apr 2015	Wind Dir	E
A7	15 Apr 2015	Water Color	Green
A7	15 Apr 2015	Wave Ht Low (ft)	4
A7	15 Apr 2015	Wave Period (sec)	9
A7	15 Apr 2015	Sea State	Calm
A7	15 Apr 2015	High Tide (ft)	4.92
A7	15 Apr 2015	High Tide Time	707
A7	15 Apr 2015	Low Tide (ft)	-0.37
A7	15 Apr 2015	Low Tide Time	1336
A7	15 Apr 2015	Comments	Kelp
A7	21 Apr 2015	Depth (m)	19
A7	21 Apr 2015	Arrive Time	830
A7	21 Apr 2015	Depart Time	839
A7	21 Apr 2015	Air Temp (C)	16
A7	21 Apr 2015	Weather	Partly Cloudy
A7	21 Apr 2015	Visibility (mi)	5
A7	21 Apr 2015	Wind Speed (kts)	3
A7	21 Apr 2015	Wind Dir	S
A7	21 Apr 2015	Water Color	Green
A7	21 Apr 2015	Wave Ht Low (ft)	3
A7	21 Apr 2015	Wave Period (sec)	9
A7	21 Apr 2015	Sea State	Calm
A7	21 Apr 2015	High Tide (ft)	3.87
A7	21 Apr 2015	High Tide Time	1211
A7	21 Apr 2015	Low Tide (ft)	-0.79
A7	21 Apr 2015	Low Tide Time	556
A7	21 Apr 2015	Comments	Kelp
A7	28 Apr 2015	Depth (m)	19
A7	28 Apr 2015	Arrive Time	814
A7	28 Apr 2015	Depart Time	826
A7	28 Apr 2015	Air Temp (C)	18
A7	28 Apr 2015	Weather	Clear
A7	28 Apr 2015	Visibility (mi)	5
A7	28 Apr 2015	Wind Speed (kts)	0
A7	28 Apr 2015	Wind Dir	
A7	28 Apr 2015	Water Color	Green
A7	28 Apr 2015	Wave Ht Low (ft)	2
A7	28 Apr 2015	Wave Period (sec)	9

Station	Date	Parameter	Value
A7	28 Apr 2015	Sea State	Calm
A7	28 Apr 2015	High Tide (ft)	3.84
A7	28 Apr 2015	High Tide Time	623
A7	28 Apr 2015	Low Tide (ft)	0.63
A7	28 Apr 2015	Low Tide Time	1251
A7	28 Apr 2015	Comments	Kelp; Kelp debris
C7	02 Apr 2015	Depth (m)	19
C7	02 Apr 2015	Arrive Time	849
C7	02 Apr 2015	Depart Time	901
C7	02 Apr 2015	Air Temp (C)	16
C7	02 Apr 2015	Weather	Partly Cloudy
C7	02 Apr 2015	Visibility (mi)	8
C7	02 Apr 2015	Wind Speed (kts)	7
C7	02 Apr 2015	Wind Dir	SW
C7	02 Apr 2015	Water Color	Bluish-Green
C7	02 Apr 2015	Wave Ht Low (ft)	5
C7	02 Apr 2015	Wave Period (sec)	11
C7	02 Apr 2015	Sea State	Confused swell
C7	02 Apr 2015	High Tide (ft)	4.67
C7	02 Apr 2015	High Tide Time	846
C7	02 Apr 2015	Low Tide (ft)	0.2
C7	02 Apr 2015	Low Tide Time	1503
C7	02 Apr 2015	Comments	Kelp
C7	10 Apr 2015	Depth (m)	18
C7	10 Apr 2015	Arrive Time	842
C7	10 Apr 2015	Depart Time	849
C7	10 Apr 2015	Air Temp (C)	15
C7	10 Apr 2015	Weather	Partly Cloudy
C7	10 Apr 2015	Visibility (mi)	7
C7	10 Apr 2015	Wind Speed (kts)	2
C7	10 Apr 2015	Wind Dir	SE
C7	10 Apr 2015	Water Color	Greenish-Blue
C7	10 Apr 2015	Wave Ht Low (ft)	3
C7	10 Apr 2015	Wave Period (sec)	9
C7	10 Apr 2015	Sea State	Calm
C7	10 Apr 2015	High Tide (ft)	2.87
C7	10 Apr 2015	High Tide Time	1510
C7	10 Apr 2015	Low Tide (ft)	0.46
C7	10 Apr 2015	Low Tide Time	830
C7	10 Apr 2015	Comments	
C7	15 Apr 2015	Depth (m)	19
C7	15 Apr 2015	Arrive Time	913
C7	15 Apr 2015	Depart Time	920
C7	15 Apr 2015	Air Temp (C)	16
C7	15 Apr 2015	Weather	Fog
C7	15 Apr 2015	Visibility (mi)	7

Station	Date	Parameter	Value
C7	15 Apr 2015	Wind Speed (kts)	4
C7	15 Apr 2015	Wind Dir	W
C7	15 Apr 2015	Water Color	Green
C7	15 Apr 2015	Wave Ht Low (ft)	4
C7	15 Apr 2015	Wave Period (sec)	9
C7	15 Apr 2015	Sea State	Calm
C7	15 Apr 2015	High Tide (ft)	4.92
C7	15 Apr 2015	High Tide Time	707
C7	15 Apr 2015	Low Tide (ft)	-0.37
C7	15 Apr 2015	Low Tide Time	1336
C7	15 Apr 2015	Comments	Kelp
C7	21 Apr 2015	Depth (m)	18
C7	21 Apr 2015	Arrive Time	908
C7	21 Apr 2015	Depart Time	921
C7	21 Apr 2015	Air Temp (C)	17
C7	21 Apr 2015	Weather	Partly Cloudy
C7	21 Apr 2015	Visibility (mi)	7
C7	21 Apr 2015	Wind Speed (kts)	0
C7	21 Apr 2015	Wind Dir	
C7	21 Apr 2015	Water Color	Green
C7	21 Apr 2015	Wave Ht Low (ft)	3
C7	21 Apr 2015	Wave Period (sec)	9
C7	21 Apr 2015	Sea State	Calm
C7	21 Apr 2015	High Tide (ft)	3.87
C7	21 Apr 2015	High Tide Time	1211
C7	21 Apr 2015	Low Tide (ft)	-0.79
C7	21 Apr 2015	Low Tide Time	556
C7	21 Apr 2015	Comments	Kelp
C7	28 Apr 2015	Depth (m)	16
C7	28 Apr 2015	Arrive Time	855
C7	28 Apr 2015	Depart Time	910
C7	28 Apr 2015	Air Temp (C)	18
C7	28 Apr 2015	Weather	Clear
C7	28 Apr 2015	Visibility (mi)	5
C7	28 Apr 2015	Wind Speed (kts)	0
C7	28 Apr 2015	Wind Dir	
C7	28 Apr 2015	Water Color	Green
C7	28 Apr 2015	Wave Ht Low (ft)	2
C7	28 Apr 2015	Wave Period (sec)	9
C7	28 Apr 2015	Sea State	Calm
C7	28 Apr 2015	High Tide (ft)	3.84
C7	28 Apr 2015	High Tide Time	623
C7	28 Apr 2015	Low Tide (ft)	0.63
C7	28 Apr 2015	Low Tide Time	1251
C7	28 Apr 2015	Comments	Kelp
C8	02 Apr 2015	Depth (m)	19

Station	Date	Parameter	Value
C8	02 Apr 2015	Arrive Time	907
C8	02 Apr 2015	Depart Time	914
C8	02 Apr 2015	Air Temp (C)	16
C8	02 Apr 2015	Weather	Partly Cloudy
C8	02 Apr 2015	Visibility (mi)	8
C8	02 Apr 2015	Wind Speed (kts)	5
C8	02 Apr 2015	Wind Dir	W
C8	02 Apr 2015	Water Color	Bluish-Green
C8	02 Apr 2015	Wave Ht Low (ft)	5
C8	02 Apr 2015	Wave Period (sec)	11
C8	02 Apr 2015	Sea State	Confused swell
C8	02 Apr 2015	High Tide (ft)	4.67
C8	02 Apr 2015	High Tide Time	846
C8	02 Apr 2015	Low Tide (ft)	0.2
C8	02 Apr 2015	Low Tide Time	1503
C8	02 Apr 2015	Comments	Kelp debris
C8	10 Apr 2015	Depth (m)	19
C8	10 Apr 2015	Arrive Time	856
C8	10 Apr 2015	Depart Time	902
C8	10 Apr 2015	Air Temp (C)	16
C8	10 Apr 2015	Weather	Partly Cloudy
C8	10 Apr 2015	Visibility (mi)	7
C8	10 Apr 2015	Wind Speed (kts)	0
C8	10 Apr 2015	Wind Dir	
C8	10 Apr 2015	Water Color	Greenish-Blue
C8	10 Apr 2015	Wave Ht Low (ft)	3
C8	10 Apr 2015	Wave Period (sec)	9
C8	10 Apr 2015	Sea State	Calm
C8	10 Apr 2015	High Tide (ft)	2.87
C8	10 Apr 2015	High Tide Time	1510
C8	10 Apr 2015	Low Tide (ft)	0.46
C8	10 Apr 2015	Low Tide Time	830
C8	10 Apr 2015	Comments	
C8	15 Apr 2015	Depth (m)	19
C8	15 Apr 2015	Arrive Time	926
C8	15 Apr 2015	Depart Time	933
C8	15 Apr 2015	Air Temp (C)	16
C8	15 Apr 2015	Weather	Fog
C8	15 Apr 2015	Visibility (mi)	7
C8	15 Apr 2015	Wind Speed (kts)	3
C8	15 Apr 2015	Wind Dir	S
C8	15 Apr 2015	Water Color	Green
C8	15 Apr 2015	Wave Ht Low (ft)	4
C8	15 Apr 2015	Wave Period (sec)	9
C8	15 Apr 2015	Sea State	Calm
C8	15 Apr 2015	High Tide (ft)	4.92
C8	15 Apr 2015	High Tide Time	707

Station	Date	Parameter	Value
C8	15 Apr 2015	Low Tide (ft)	-0.37
C8	15 Apr 2015	Low Tide Time	1336
C8	15 Apr 2015	Comments	Kelp
C8	21 Apr 2015	Depth (m)	19
C8	21 Apr 2015	Arrive Time	929
C8	21 Apr 2015	Depart Time	937
C8	21 Apr 2015	Air Temp (C)	17
C8	21 Apr 2015	Weather	Partly Cloudy
C8	21 Apr 2015	Visibility (mi)	7
C8	21 Apr 2015	Wind Speed (kts)	1
C8	21 Apr 2015	Wind Dir	NE
C8	21 Apr 2015	Water Color	Green
C8	21 Apr 2015	Wave Ht Low (ft)	3
C8	21 Apr 2015	Wave Period (sec)	9
C8	21 Apr 2015	Sea State	Calm
C8	21 Apr 2015	High Tide (ft)	3.87
C8	21 Apr 2015	High Tide Time	1211
C8	21 Apr 2015	Low Tide (ft)	-0.79
C8	21 Apr 2015	Low Tide Time	556
C8	21 Apr 2015	Comments	Kelp
C8	28 Apr 2015	Depth (m)	19
C8	28 Apr 2015	Arrive Time	915
C8	28 Apr 2015	Depart Time	924
C8	28 Apr 2015	Air Temp (C)	18
C8	28 Apr 2015	Weather	Clear
C8	28 Apr 2015	Visibility (mi)	5
C8	28 Apr 2015	Wind Speed (kts)	8
C8	28 Apr 2015	Wind Dir	E
C8	28 Apr 2015	Water Color	Green
C8	28 Apr 2015	Wave Ht Low (ft)	2
C8	28 Apr 2015	Wave Period (sec)	9
C8	28 Apr 2015	Sea State	Calm
C8	28 Apr 2015	High Tide (ft)	3.84
C8	28 Apr 2015	High Tide Time	623
C8	28 Apr 2015	Low Tide (ft)	0.63
C8	28 Apr 2015	Low Tide Time	1251
C8	28 Apr 2015	Comments	

Table 3.10

Summary of CTD profile data from the PLOO kelp stations for each sample date.

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
A1	02 Apr 2015	1	16.58	82.33	7.7	33.32	8.1	24.3	1.75
A1	02 Apr 2015	2	16.47	82.47	7.6	33.33	8.1	24.4	1.76
A1	02 Apr 2015	3	16.18	82.94	7.6	33.33	8.1	24.4	1.96
A1	02 Apr 2015	4	15.76	82.07	7.5	33.36	8.1	24.5	2.24
A1	02 Apr 2015	5	15.32	78.60	7.3	33.33	8.1	24.6	2.27
A1	02 Apr 2015	6	14.48	78.70	7.1	33.34	8.1	24.8	1.95
A1	02 Apr 2015	7	14.17	79.34	6.9	33.32	8.1	24.9	1.80
A1	02 Apr 2015	8	13.70	81.56	6.8	33.32	8.0	24.9	1.56
A1	02 Apr 2015	9	13.35	84.57	6.7	33.33	8.0	25.0	1.44
A1	02 Apr 2015	10	13.14	84.44	6.6	33.32	8.0	25.1	1.40
A1	02 Apr 2015	11	12.91	84.64	6.5	33.33	8.0	25.1	1.34
A1	02 Apr 2015	12	12.76	84.65	6.5	33.34	8.0	25.2	1.41
A1	02 Apr 2015	13	12.71	85.19	6.4	33.33	8.0	25.2	1.37
A1	02 Apr 2015	14	12.58	85.64	6.3	33.34	8.0	25.2	1.33
A1	02 Apr 2015	15	12.25	85.76	6.3	33.34	8.0	25.3	1.28
A1	02 Apr 2015	16	12.12	85.45	6.2	33.35	8.0	25.3	1.25
A1	02 Apr 2015	17	12.09	86.43	6.2	33.36	8.0	25.3	1.25
A1	02 Apr 2015	18	12.10	86.66	6.1	33.36	8.0	25.3	1.19
A1	02 Apr 2015	19	12.10	86.14	6.1	33.36	8.0	25.3	1.19
A1	02 Apr 2015	20	12.10	85.77	6.1	33.36	8.0	25.3	1.14
A1	10 Apr 2015	1	15.23	77.20	8.4	33.37	8.0	24.7	3.79
A1	10 Apr 2015	2	15.20	76.85	8.4	33.37	8.0	24.7	4.12
A1	10 Apr 2015	3	15.04	76.93	8.2	33.35	8.0	24.7	4.87
A1	10 Apr 2015	4	14.27	76.26	7.9	33.34	8.0	24.8	4.93
A1	10 Apr 2015	5	13.54	76.25	7.6	33.37	7.9	25.0	4.53
A1	10 Apr 2015	6	13.46	78.64	7.4	33.36	7.9	25.0	4.13
A1	10 Apr 2015	7	13.37	78.20	7.3	33.36	7.9	25.1	3.93
A1	10 Apr 2015	8	13.25	81.36	7.1	33.36	7.9	25.1	3.78
A1	10 Apr 2015	9	13.16	82.94	6.9	33.37	7.9	25.1	3.59
A1	10 Apr 2015	10	13.01	83.15	6.7	33.37	7.9	25.1	3.40
A1	10 Apr 2015	11	12.48	85.15	6.5	33.39	7.9	25.3	3.11
A1	10 Apr 2015	12	12.15	86.05	6.3	33.36	7.9	25.3	2.67
A1	10 Apr 2015	13	11.71	85.86	6.2	33.37	7.8	25.4	2.37
A1	10 Apr 2015	14	11.40	85.01	6.0	33.41	7.8	25.5	1.94
A1	10 Apr 2015	15	11.29	88.48	5.9	33.41	7.8	25.5	1.63
A1	10 Apr 2015	16	11.15	89.43	5.8	33.41	7.8	25.5	1.45
A1	10 Apr 2015	17	11.09	90.55	5.7	33.43	7.8	25.5	1.27
A1	10 Apr 2015	18	11.05	90.35	5.6	33.43	7.8	25.5	1.14
A1	10 Apr 2015	19	11.03	91.07	5.6	33.43	7.8	25.6	1.00
A1	10 Apr 2015	20	11.03	91.53	5.5	33.44	7.8	25.6	0.97
A1	15 Apr 2015	1	15.84	81.13	9.0	33.36	8.2	24.5	2.06
A1	15 Apr 2015	2	15.83	81.22	9.0	33.36	8.2	24.5	2.61
A1	15 Apr 2015	3	15.74	81.18	8.9	33.35	8.2	24.5	3.66
A1	15 Apr 2015	4	15.59	81.23	8.9	33.37	8.2	24.6	4.13
A1	15 Apr 2015	5	15.54	80.89	8.8	33.36	8.2	24.6	4.41
A1	15 Apr 2015	6	15.35	81.05	8.6	33.35	8.2	24.6	4.59
A1	15 Apr 2015	7	14.87	80.70	8.4	33.34	8.2	24.7	4.47
A1	15 Apr 2015	8	14.44	80.04	8.2	33.36	8.1	24.8	4.19
A1	15 Apr 2015	9	13.96	80.33	7.8	33.35	8.1	24.9	3.89
A1	15 Apr 2015	10	13.44	81.33	7.4	33.35	8.1	25.0	3.57
A1	15 Apr 2015	11	13.01	82.32	7.1	33.33	8.1	25.1	2.89

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
A1	15 Apr 2015	12	12.61	83.78	6.9	33.34	8.0	25.2	2.67
A1	15 Apr 2015	13	12.35	84.61	6.8	33.36	8.0	25.3	2.47
A1	15 Apr 2015	14	12.34	85.21	6.5	33.35	8.0	25.2	2.27
A1	15 Apr 2015	15	11.94	85.66	6.2	33.38	8.0	25.3	2.01
A1	15 Apr 2015	16	11.71	86.77	6.0	33.35	8.0	25.4	1.66
A1	15 Apr 2015	17	11.38	87.09	5.9	33.39	7.9	25.5	1.51
A1	15 Apr 2015	18	11.46	84.99	5.8	33.41	7.9	25.5	1.33
A1	15 Apr 2015	19	11.42	83.93	5.8	33.40	7.9	25.5	1.45
A1	21 Apr 2015	1	15.09	84.67	8.7	33.28	8.2	24.6	2.34
A1	21 Apr 2015	2	14.77	84.50	8.8	33.30	8.2	24.7	2.86
A1	21 Apr 2015	3	14.56	84.34	8.3	33.28	8.2	24.7	2.65
A1	21 Apr 2015	4	14.40	84.17	8.2	33.31	8.2	24.8	2.80
A1	21 Apr 2015	5	14.25	84.10	8.9	33.40	8.2	24.9	6.52
A1	21 Apr 2015	6	14.12	83.80	8.8	33.31	8.2	24.9	9.19
A1	21 Apr 2015	7	13.86	83.01	8.5	33.30	8.1	24.9	4.97
A1	21 Apr 2015	8	13.55	82.16	8.3	33.30	8.1	25.0	4.09
A1	21 Apr 2015	9	13.49	81.85	8.1	33.28	8.0	25.0	3.93
A1	21 Apr 2015	10	13.21	82.35	7.8	33.31	8.0	25.0	3.91
A1	21 Apr 2015	11	12.83	84.36	7.5	33.31	8.0	25.1	3.50
A1	21 Apr 2015	12	12.71	85.37	7.3	33.33	8.0	25.2	3.27
A1	21 Apr 2015	13	12.50	86.81	7.1	33.30	8.0	25.2	3.03
A1	21 Apr 2015	14	11.99	86.85	6.8	33.33	8.0	25.3	2.80
A1	21 Apr 2015	15	12.01	88.08	6.7	33.33	8.0	25.3	2.66
A1	21 Apr 2015	16	11.78	88.23	6.6	33.36	8.0	25.4	2.74
A1	21 Apr 2015	17	11.68	88.65	6.3	33.38	7.9	25.4	2.21
A1	21 Apr 2015	18	11.56	88.58	6.2	33.40	7.9	25.4	1.81
A1	28 Apr 2015	1	17.24	83.04	8.6	33.35	8.2	24.2	1.43
A1	28 Apr 2015	2	17.23	82.44	8.6	33.34	8.2	24.2	1.57
A1	28 Apr 2015	3	17.23	83.41	8.7	33.34	8.2	24.2	1.70
A1	28 Apr 2015	4	17.21	83.76	8.6	33.34	8.2	24.2	1.83
A1	28 Apr 2015	5	17.03	83.59	8.4	33.33	8.2	24.2	1.98
A1	28 Apr 2015	6	16.76	83.87	8.2	33.32	8.2	24.3	2.07
A1	28 Apr 2015	7	16.16	84.02	7.8	33.30	8.2	24.4	1.97
A1	28 Apr 2015	8	15.22	84.57	7.7	33.29	8.2	24.6	1.91
A1	28 Apr 2015	9	14.53	85.01	7.5	33.29	8.1	24.8	1.89
A1	28 Apr 2015	10	13.78	85.80	7.3	33.29	8.1	24.9	1.86
A1	28 Apr 2015	11	13.40	86.41	7.1	33.29	8.1	25.0	1.82
A1	28 Apr 2015	12	13.03	86.55	7.0	33.30	8.1	25.1	1.84
A1	28 Apr 2015	13	12.72	86.75	6.8	33.30	8.0	25.1	1.81
A1	28 Apr 2015	14	12.26	87.25	6.5	33.31	8.0	25.2	1.79
A1	28 Apr 2015	15	11.92	87.60	6.3	33.33	8.0	25.3	1.76
A1	28 Apr 2015	16	11.59	87.87	6.0	33.34	8.0	25.4	1.55
A1	28 Apr 2015	17	11.27	88.30	5.8	33.38	7.9	25.5	1.31
A1	28 Apr 2015	18	11.19	89.00	5.6	33.39	7.9	25.5	1.30
C4	02 Apr 2015	1	16.35	70.81	7.7	33.32	8.2	24.4	1.76
C4	02 Apr 2015	2	16.33	72.74	7.7	33.32	8.2	24.4	1.96
C4	02 Apr 2015	3	16.30	73.58	7.7	33.32	8.2	24.4	2.18
C4	02 Apr 2015	4	16.28	73.48	7.6	33.32	8.2	24.4	2.17
C4	02 Apr 2015	5	16.27	73.69	7.6	33.32	8.2	24.4	2.23
C4	02 Apr 2015	6	16.24	73.50	7.6	33.32	8.2	24.4	2.26
C4	02 Apr 2015	7	16.23	73.08	7.5	33.32	8.2	24.4	2.15
C4	02 Apr 2015	8	16.17	73.20	7.4	33.32	8.1	24.4	1.96
C4	02 Apr 2015	9	16.15	71.19	7.4	33.32	8.1	24.4	1.94
C4	02 Apr 2015	10	16.14	71.19	7.4	33.32	8.1	24.4	1.73

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
C4	10 Apr 2015	1	15.44	79.01	8.1	33.37	8.2	24.6	1.70
C4	10 Apr 2015	2	15.18	75.12	8.1	33.35	8.2	24.7	2.15
C4	10 Apr 2015	3	15.10	77.18	8.1	33.38	8.2	24.7	2.43
C4	10 Apr 2015	4	15.06	77.74	8.1	33.36	8.2	24.7	2.78
C4	10 Apr 2015	5	14.54	77.63	7.8	33.34	8.2	24.8	3.00
C4	10 Apr 2015	6	13.56	78.89	7.4	33.34	8.1	25.0	2.28
C4	10 Apr 2015	7	12.91	82.87	6.9	33.34	8.1	25.1	1.29
C4	10 Apr 2015	8	12.47	86.61	6.6	33.35	8.0	25.2	0.80
C4	10 Apr 2015	9	12.44	88.47	6.5	33.35	8.0	25.2	0.62
C4	15 Apr 2015	1	16.52	79.84	8.4	33.38	8.2	24.4	0.83
C4	15 Apr 2015	2	16.41	77.73	8.5	33.37	8.2	24.4	1.05
C4	15 Apr 2015	3	16.29	78.91	8.6	33.37	8.2	24.4	1.32
C4	15 Apr 2015	4	16.18	78.72	8.7	33.36	8.2	24.4	1.76
C4	15 Apr 2015	5	16.09	79.45	8.7	33.37	8.2	24.5	2.35
C4	15 Apr 2015	6	16.05	78.96	8.6	33.37	8.2	24.5	2.84
C4	15 Apr 2015	7	15.99	79.02	8.1	33.36	8.2	24.5	2.98
C4	15 Apr 2015	8	15.06	78.35	7.4	33.17	8.2	24.5	2.39
C4	15 Apr 2015	9	13.32	77.20	6.9	33.39	8.1	25.1	1.56
C4	15 Apr 2015	10	13.15	75.84	6.6	33.37	8.0	25.1	1.16
C4	15 Apr 2015	11	13.15	70.94	6.6	33.38	8.0	25.1	1.12
C4	21 Apr 2015	1	17.39	84.64	8.5	33.36	8.2	24.2	1.07
C4	21 Apr 2015	2	17.35	84.72	8.5	33.35	8.2	24.2	1.19
C4	21 Apr 2015	3	17.17	84.75	8.5	33.34	8.2	24.2	1.40
C4	21 Apr 2015	4	16.83	84.54	8.2	33.30	8.2	24.3	1.80
C4	21 Apr 2015	5	15.63	84.23	8.1	33.28	8.2	24.5	2.07
C4	21 Apr 2015	6	14.71	81.77	7.9	33.32	8.2	24.7	1.96
C4	21 Apr 2015	7	14.19	83.21	7.6	33.31	8.1	24.8	1.65
C4	21 Apr 2015	8	13.75	85.36	7.5	33.33	8.1	24.9	1.20
C4	21 Apr 2015	9	13.68	86.73	7.4	33.34	8.1	25.0	0.90
C4	21 Apr 2015	10	13.68	87.74	7.4	33.34	8.1	25.0	0.80
C4	21 Apr 2015	11	13.68	88.46	7.4	33.34	8.1	25.0	0.75
C4	28 Apr 2015	1	17.48	80.81	7.3	33.35	8.2	24.1	0.59
C4	28 Apr 2015	2	17.33	80.70	7.4	33.35	8.2	24.2	0.69
C4	28 Apr 2015	3	17.24	79.81	7.4	33.35	8.2	24.2	0.84
C4	28 Apr 2015	4	17.21	78.43	7.4	33.35	8.2	24.2	0.98
C4	28 Apr 2015	5	16.99	78.32	7.4	33.34	8.2	24.2	1.28
C4	28 Apr 2015	6	16.88	78.43	7.5	33.34	8.2	24.3	1.56
C4	28 Apr 2015	7	16.62	78.20	7.4	33.33	8.2	24.3	1.56
C4	28 Apr 2015	8	15.90	78.74	7.0	33.30	8.1	24.5	1.20
C4	28 Apr 2015	9	14.34	81.70	6.8	33.31	8.1	24.8	0.76
C4	28 Apr 2015	10	14.10	88.27	6.8	33.32	8.1	24.9	0.65
C4	28 Apr 2015	11	14.08	89.50	6.8	33.32	8.1	24.9	0.62
C5	02 Apr 2015	1	16.95	62.90	7.3	33.34	8.1	24.2	1.09
C5	02 Apr 2015	2	16.92	62.33	7.3	33.33	8.1	24.3	1.23
C5	02 Apr 2015	3	16.87	62.54	7.3	33.33	8.1	24.3	1.48
C5	02 Apr 2015	4	16.83	62.77	7.3	33.33	8.1	24.3	1.64
C5	02 Apr 2015	5	16.78	63.92	7.3	33.33	8.1	24.3	1.62
C5	02 Apr 2015	6	16.74	63.78	7.3	33.33	8.1	24.3	1.57
C5	02 Apr 2015	7	16.70	63.88	7.2	33.33	8.1	24.3	1.49
C5	02 Apr 2015	8	16.48	62.49	6.9	33.32	8.1	24.3	1.34
C5	02 Apr 2015	9	15.93	61.51	6.6	33.31	8.1	24.5	1.25
C5	02 Apr 2015	10	14.85	65.19	6.2	33.31	8.0	24.7	1.19

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
C5	02 Apr 2015	11	14.48	64.38	6.0	33.33	8.0	24.8	1.25
C5	10 Apr 2015	1	15.53	80.18	8.0	33.38	8.2	24.6	1.41
C5	10 Apr 2015	2	15.51	79.92	8.0	33.38	8.2	24.6	1.52
C5	10 Apr 2015	3	15.45	80.08	8.0	33.37	8.1	24.6	1.80
C5	10 Apr 2015	4	15.25	79.94	8.1	33.37	8.2	24.7	2.82
C5	10 Apr 2015	5	14.98	79.77	8.2	33.36	8.2	24.7	3.99
C5	10 Apr 2015	6	14.66	77.61	8.0	33.36	8.2	24.8	4.21
C5	10 Apr 2015	7	14.29	76.28	7.8	33.35	8.1	24.9	3.64
C5	10 Apr 2015	8	13.67	77.40	7.8	33.36	8.1	25.0	2.37
C5	10 Apr 2015	9	13.47	81.70	7.7	33.37	8.1	25.0	1.68
C5	15 Apr 2015	1	16.86	68.86	7.7	33.40	8.2	24.3	0.76
C5	15 Apr 2015	2	16.75	68.69	7.6	33.40	8.2	24.3	0.88
C5	15 Apr 2015	3	16.25	68.18	7.5	33.36	8.2	24.4	1.15
C5	15 Apr 2015	4	15.14	67.17	7.4	33.38	8.2	24.7	1.36
C5	15 Apr 2015	5	14.29	67.89	7.1	33.34	8.1	24.8	1.40
C5	15 Apr 2015	6	13.10	70.81	7.0	33.36	8.1	25.1	1.47
C5	15 Apr 2015	7	12.66	70.75	6.8	33.37	8.0	25.2	1.38
C5	15 Apr 2015	8	12.39	72.18	6.6	33.37	8.0	25.2	1.42
C5	15 Apr 2015	9	12.24	72.70	6.4	33.37	8.0	25.3	1.42
C5	15 Apr 2015	10	12.20	66.83	6.4	33.38	8.0	25.3	1.50
C5	15 Apr 2015	11	12.20	58.52	6.3	33.38	8.0	25.3	1.71
C5	21 Apr 2015	1	17.07	84.24	8.4	33.36	8.2	24.2	1.08
C5	21 Apr 2015	2	16.98	84.09	8.1	33.33	8.2	24.2	1.19
C5	21 Apr 2015	3	15.22	84.34	7.9	33.31	8.2	24.6	1.34
C5	21 Apr 2015	4	14.61	84.39	7.9	33.33	8.1	24.8	1.17
C5	21 Apr 2015	5	14.42	85.43	7.8	33.33	8.1	24.8	0.97
C5	21 Apr 2015	6	14.23	87.80	7.8	33.34	8.1	24.9	0.91
C5	21 Apr 2015	7	13.99	88.58	7.9	33.34	8.1	24.9	0.91
C5	21 Apr 2015	8	13.93	88.93	7.8	33.34	8.1	24.9	0.95
C5	21 Apr 2015	9	13.92	88.72	7.8	33.35	8.1	24.9	0.85
C5	28 Apr 2015	1	17.33	81.88	7.5	33.34	8.2	24.2	0.65
C5	28 Apr 2015	2	17.26	81.81	7.5	33.34	8.2	24.2	0.75
C5	28 Apr 2015	3	17.10	80.55	7.6	33.34	8.2	24.2	0.88
C5	28 Apr 2015	4	16.95	80.44	7.6	33.34	8.2	24.2	1.04
C5	28 Apr 2015	5	16.84	81.21	7.6	33.33	8.2	24.3	1.13
C5	28 Apr 2015	6	15.92	82.10	7.2	33.31	8.2	24.5	1.26
C5	28 Apr 2015	7	14.87	83.92	6.9	33.29	8.1	24.7	0.94
C5	28 Apr 2015	8	14.04	85.26	6.8	33.32	8.1	24.9	0.75
C5	28 Apr 2015	9	13.95	86.45	6.7	33.32	8.1	24.9	0.70
C5	28 Apr 2015	10	13.78	86.52	6.6	33.32	8.1	24.9	0.73
C5	28 Apr 2015	11	13.56	86.02	6.8	33.33	8.1	25.0	0.78
A6	02 Apr 2015	1	16.65	77.18	7.8	33.33	8.2	24.3	1.72
A6	02 Apr 2015	2	16.63	79.80	7.7	33.33	8.2	24.3	1.86
A6	02 Apr 2015	3	15.82	79.91	7.5	33.30	8.1	24.5	2.00
A6	02 Apr 2015	4	15.33	81.20	7.4	33.33	8.1	24.6	2.13
A6	02 Apr 2015	5	15.01	81.96	7.3	33.33	8.1	24.7	2.28
A6	02 Apr 2015	6	14.89	82.11	7.3	33.33	8.1	24.7	2.27
A6	02 Apr 2015	7	14.23	83.12	7.2	33.33	8.1	24.9	2.17
A6	02 Apr 2015	8	13.64	84.60	7.0	33.33	8.1	25.0	2.18
A6	02 Apr 2015	9	12.99	85.19	6.8	33.33	8.1	25.1	1.94
A6	02 Apr 2015	10	12.71	86.06	6.6	33.33	8.0	25.2	1.60
A6	02 Apr 2015	11	12.51	86.53	6.5	33.33	8.0	25.2	1.46

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
A6	02 Apr 2015	12	12.39	87.02	6.5	33.33	8.0	25.2	1.43
A6	02 Apr 2015	13	12.12	87.13	6.4	33.34	8.0	25.3	1.40
A6	02 Apr 2015	14	11.94	87.33	6.2	33.35	8.0	25.3	1.39
A6	02 Apr 2015	15	11.85	88.14	6.1	33.35	8.0	25.3	1.44
A6	02 Apr 2015	16	11.75	88.82	6.1	33.36	8.0	25.4	1.37
A6	02 Apr 2015	17	11.73	88.04	6.0	33.37	8.0	25.4	1.71
A6	02 Apr 2015	18	11.71	86.10	5.5	33.37	8.0	25.4	1.51
A6	02 Apr 2015	19	11.72	85.77	5.8	NA	8.0	25.5	NA
A6	10 Apr 2015	1	15.58	76.10	8.3	33.37	8.2	24.6	4.38
A6	10 Apr 2015	2	15.44	76.20	8.2	33.36	8.2	24.6	4.49
A6	10 Apr 2015	3	15.22	76.41	8.1	33.37	8.1	24.7	4.75
A6	10 Apr 2015	4	14.90	76.69	7.8	33.35	8.1	24.7	4.77
A6	10 Apr 2015	5	14.45	76.88	7.7	33.35	8.1	24.8	4.76
A6	10 Apr 2015	6	14.14	77.48	7.5	33.35	8.1	24.9	4.71
A6	10 Apr 2015	7	13.88	78.34	7.3	33.36	8.1	24.9	6.03
A6	10 Apr 2015	8	13.68	78.58	7.3	33.37	8.1	25.0	8.20
A6	10 Apr 2015	9	13.68	79.50	7.3	33.37	8.1	25.0	5.95
A6	10 Apr 2015	10	13.53	80.84	7.2	33.39	8.1	25.0	4.62
A6	10 Apr 2015	11	13.38	82.20	7.0	33.36	8.0	25.0	4.09
A6	10 Apr 2015	12	13.07	83.74	6.8	33.36	8.0	25.1	3.67
A6	10 Apr 2015	13	12.78	85.37	6.6	33.37	8.0	25.2	3.18
A6	10 Apr 2015	14	12.37	86.82	6.4	33.38	8.0	25.3	2.68
A6	10 Apr 2015	15	11.87	87.62	6.1	33.40	8.0	25.4	2.16
A6	10 Apr 2015	16	11.62	88.33	5.9	33.41	8.0	25.4	1.81
A6	10 Apr 2015	17	11.51	89.06	5.8	33.43	7.9	25.5	1.60
A6	10 Apr 2015	18	11.39	89.32	5.6	33.44	7.9	25.5	1.45
A6	15 Apr 2015	1	16.73	79.70	8.2	33.40	8.2	24.4	0.73
A6	15 Apr 2015	2	16.60	79.77	8.3	33.48	8.2	24.4	0.71
A6	15 Apr 2015	3	16.26	79.78	8.8	33.63	8.2	24.6	1.34
A6	15 Apr 2015	4	15.74	79.88	9.0	33.74	8.2	24.8	1.40
A6	15 Apr 2015	5	15.50	80.67	8.9	33.47	8.2	24.7	1.38
A6	15 Apr 2015	6	15.17	81.19	8.7	33.48	8.2	24.8	1.51
A6	15 Apr 2015	7	14.99	81.82	8.5	33.49	8.2	24.8	1.98
A6	15 Apr 2015	8	14.53	82.33	8.2	33.53	8.1	24.9	2.44
A6	15 Apr 2015	9	14.32	83.06	8.1	33.42	8.1	24.9	2.76
A6	15 Apr 2015	10	13.93	83.22	7.8	33.40	8.1	25.0	3.03
A6	15 Apr 2015	11	13.26	83.13	7.6	33.40	8.1	25.1	3.09
A6	15 Apr 2015	12	12.82	84.19	7.3	33.38	8.1	25.2	2.86
A6	15 Apr 2015	13	12.38	85.70	7.1	33.39	8.0	25.3	2.90
A6	15 Apr 2015	14	12.06	86.68	6.9	33.40	8.0	25.3	2.62
A6	15 Apr 2015	15	11.90	87.32	6.6	33.39	8.0	25.4	2.51
A6	15 Apr 2015	16	11.62	87.62	6.3	33.41	8.0	25.4	2.39
A6	15 Apr 2015	17	11.35	87.84	6.0	33.42	8.0	25.5	1.89
A6	15 Apr 2015	18	11.09	87.91	5.7	33.45	7.9	25.5	1.69
A6	15 Apr 2015	19	10.99	87.53	5.6	33.46	7.9	25.6	1.30
A6	21 Apr 2015	1	17.34	85.41	8.6	33.35	8.2	24.2	1.20
A6	21 Apr 2015	2	16.84	85.11	8.5	33.37	8.2	24.3	1.34
A6	21 Apr 2015	3	14.42	85.00	8.7	33.42	8.2	24.9	1.94
A6	21 Apr 2015	4	13.59	84.52	8.7	33.32	8.2	25.0	3.30
A6	21 Apr 2015	5	13.10	80.84	8.4	33.32	8.1	25.1	4.62
A6	21 Apr 2015	6	12.75	80.24	8.0	33.30	8.1	25.1	4.94
A6	21 Apr 2015	7	12.46	82.11	7.5	33.31	8.1	25.2	4.19
A6	21 Apr 2015	8	12.38	83.93	7.2	33.30	8.0	25.2	3.31
A6	21 Apr 2015	9	12.01	86.39	6.9	33.34	8.0	25.3	2.85

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
A6	21 Apr 2015	10	11.81	87.28	6.7	33.35	8.0	25.3	2.29
A6	21 Apr 2015	11	11.64	88.57	6.5	33.36	8.0	25.4	2.11
A6	21 Apr 2015	12	11.61	88.91	6.3	33.37	8.0	25.4	1.89
A6	21 Apr 2015	13	11.57	89.59	6.2	33.37	8.0	25.4	1.83
A6	21 Apr 2015	14	11.53	89.73	6.2	33.38	8.0	25.4	1.86
A6	21 Apr 2015	15	11.50	89.83	6.1	33.38	8.0	25.4	1.82
A6	21 Apr 2015	16	11.49	89.84	6.0	33.39	8.0	25.4	1.65
A6	21 Apr 2015	17	11.46	89.85	6.0	33.39	8.0	25.4	1.62
A6	21 Apr 2015	18	11.43	89.88	5.9	33.40	7.9	25.4	1.53
A6	21 Apr 2015	19	11.42	89.87	5.9	33.40	7.9	25.5	1.45
A6	21 Apr 2015	20	11.40	89.97	5.9	33.40	7.9	25.5	1.47
A6	21 Apr 2015	21	11.40	90.02	5.9	33.41	7.9	25.5	1.50
A6	28 Apr 2015	1	17.20	84.48	7.9	33.34	8.2	24.2	1.11
A6	28 Apr 2015	2	17.15	84.29	8.0	33.34	8.2	24.2	1.07
A6	28 Apr 2015	3	17.09	85.61	8.1	33.34	8.2	24.2	1.10
A6	28 Apr 2015	4	17.07	86.51	8.0	33.33	8.2	24.2	1.16
A6	28 Apr 2015	5	17.05	87.10	8.0	33.33	8.2	24.2	1.42
A6	28 Apr 2015	6	17.02	87.19	8.0	33.33	8.2	24.2	1.88
A6	28 Apr 2015	7	16.95	87.06	8.1	33.32	8.2	24.2	2.45
A6	28 Apr 2015	8	16.74	86.69	8.0	33.33	8.2	24.3	2.66
A6	28 Apr 2015	9	16.10	86.04	7.8	33.33	8.2	24.4	3.32
A6	28 Apr 2015	10	15.58	85.12	7.8	33.33	8.2	24.6	2.86
A6	28 Apr 2015	11	15.31	84.26	7.7	33.33	8.2	24.6	2.63
A6	28 Apr 2015	12	15.14	84.21	7.5	33.32	8.1	24.6	2.55
A6	28 Apr 2015	13	14.26	84.34	7.3	33.33	8.1	24.8	2.15
A6	28 Apr 2015	14	13.66	84.81	7.2	33.32	8.1	25.0	1.81
A6	28 Apr 2015	15	13.26	86.07	7.0	33.33	8.1	25.0	1.61
A6	28 Apr 2015	16	13.01	86.53	6.7	33.32	8.1	25.1	1.53
A6	28 Apr 2015	17	12.57	87.41	6.5	33.34	8.0	25.2	1.36
A6	28 Apr 2015	18	12.51	88.31	5.2	33.34	8.0	25.2	0.81
A6	28 Apr 2015	19	12.33	88.72		33.35	8.0	25.2	0.00
C6	02 Apr 2015	1	17.02	70.99	7.4	33.34	8.1	24.2	1.17
C6	02 Apr 2015	2	17.02	71.83	7.4	33.34	8.1	24.2	1.32
C6	02 Apr 2015	3	17.02	72.17	7.4	33.34	8.1	24.2	1.49
C6	02 Apr 2015	4	16.97	72.19	7.3	33.34	8.1	24.2	1.55
C6	02 Apr 2015	5	16.92	71.82	7.3	33.34	8.1	24.3	1.45
C6	02 Apr 2015	6	16.83	69.41	7.2	33.34	8.1	24.3	1.33
C6	02 Apr 2015	7	16.27	66.79	6.8	33.33	8.1	24.4	1.15
C6	02 Apr 2015	8	14.99	63.45	6.6	33.33	8.1	24.6	1.09
C6	02 Apr 2015	9	14.56	60.86	6.6	33.33	8.0	24.8	1.06
C6	10 Apr 2015	1	15.43	80.53	7.8	33.38	8.1	24.6	1.27
C6	10 Apr 2015	2	15.30	80.13	8.0	33.37	8.1	24.6	2.04
C6	10 Apr 2015	3	15.19	80.02	8.1	33.37	8.2	24.7	3.24
C6	10 Apr 2015	4	14.94	79.09	8.0	33.35	8.2	24.7	4.15
C6	10 Apr 2015	5	14.59	77.49	7.8	33.34	8.1	24.8	4.10
C6	10 Apr 2015	6	14.12	76.74	7.5	33.35	8.1	24.9	3.04
C6	10 Apr 2015	7	13.25	77.34	7.2	33.35	8.1	25.1	1.75
C6	10 Apr 2015	8	12.67	80.02	7.2	33.36	8.0	25.2	0.99
C6	10 Apr 2015	9	12.58	86.52	7.2	33.38	8.0	25.2	0.75
C6	15 Apr 2015	1	16.73	76.12	7.9	33.40	8.2	24.3	0.71
C6	15 Apr 2015	2	16.50	76.82	7.9	33.40	8.2	24.4	0.82
C6	15 Apr 2015	3	16.46	76.94	7.9	33.40	8.2	24.4	1.04
C6	15 Apr 2015	4	16.34	75.75	7.7	33.38	8.2	24.4	1.42

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
C6	15 Apr 2015	5	15.39	75.35	7.3	33.33	8.2	24.6	1.58
C6	15 Apr 2015	6	13.74	74.23	7.3	33.33	8.1	24.9	1.57
C6	15 Apr 2015	7	12.86	73.60	7.2	33.36	8.1	25.1	1.29
C6	15 Apr 2015	8	12.51	78.29	7.0	33.37	8.0	25.2	1.15
C6	15 Apr 2015	9	12.48	80.24	6.9	33.37	8.0	25.2	1.15
C6	15 Apr 2015	10	12.51	75.55	6.7	33.38	8.0	25.2	1.01
C6	21 Apr 2015	1	17.51	84.22	8.6	33.36	8.2	24.1	0.83
C6	21 Apr 2015	2	17.51	83.60	8.4	33.36	8.2	24.1	0.86
C6	21 Apr 2015	3	17.24	84.37	8.4	33.30	8.2	24.2	1.22
C6	21 Apr 2015	4	15.90	84.90	8.4	33.34	8.2	24.5	2.01
C6	21 Apr 2015	5	15.27	84.58	8.3	33.29	8.2	24.6	2.36
C6	21 Apr 2015	6	14.66	83.08	8.1	33.33	8.1	24.8	1.85
C6	21 Apr 2015	7	14.35	83.87	8.0	33.33	8.1	24.8	1.50
C6	21 Apr 2015	8	14.22	86.64	7.8	33.34	8.1	24.9	1.32
C6	21 Apr 2015	9	13.98	87.17	7.5	33.33	8.1	24.9	0.95
C6	21 Apr 2015	10	13.57	87.80	7.5	33.35	8.1	25.0	0.73
C6	28 Apr 2015	1	17.28	84.46	7.8	33.34	8.2	24.2	0.52
C6	28 Apr 2015	2	17.29	84.42	7.8	33.33	8.2	24.2	0.52
C6	28 Apr 2015	3	17.07	84.36	8.0	33.33	8.2	24.2	0.59
C6	28 Apr 2015	4	16.85	84.54	8.0	33.33	8.2	24.3	0.86
C6	28 Apr 2015	5	16.72	84.88	8.0	33.33	8.2	24.3	1.19
C6	28 Apr 2015	6	16.63	84.49	7.9	33.33	8.2	24.3	1.43
C6	28 Apr 2015	7	16.41	83.45	7.5	33.31	8.2	24.4	1.34
C6	28 Apr 2015	8	14.71	83.41	6.8	33.27	8.1	24.7	0.84
C6	28 Apr 2015	9	14.03	85.39	6.7	33.32	8.0	24.9	0.61
C6	28 Apr 2015	10	14.02	87.03	6.7	33.32	8.0	24.9	0.54
A7	02 Apr 2015	1	16.91	76.35	7.7	33.31	8.1	24.2	1.60
A7	02 Apr 2015	2	16.91	80.04	7.7	33.33	8.1	24.3	1.71
A7	02 Apr 2015	3	16.88	80.56	7.7	33.33	8.1	24.3	1.91
A7	02 Apr 2015	4	16.82	80.73	7.6	33.33	8.1	24.3	1.96
A7	02 Apr 2015	5	16.54	80.38	7.5	33.32	8.1	24.3	1.97
A7	02 Apr 2015	6	15.91	80.21	7.2	33.31	8.1	24.5	2.00
A7	02 Apr 2015	7	15.32	80.16	7.0	33.33	8.1	24.6	1.77
A7	02 Apr 2015	8	14.94	80.69	7.0	33.34	8.1	24.7	1.67
A7	02 Apr 2015	9	14.40	81.39	6.9	33.30	8.1	24.8	1.66
A7	02 Apr 2015	10	13.74	83.57	7.0	33.28	8.1	24.9	1.61
A7	02 Apr 2015	11	13.33	84.36	7.0	33.29	8.1	25.0	1.59
A7	02 Apr 2015	12	13.10	85.62	7.0	33.29	8.1	25.0	1.54
A7	02 Apr 2015	13	13.03	86.35	6.9	33.30	8.1	25.1	1.51
A7	02 Apr 2015	14	12.93	87.04	6.8	33.30	8.1	25.1	1.45
A7	02 Apr 2015	15	12.83	87.23	6.8	33.30	8.0	25.1	1.42
A7	02 Apr 2015	16	12.73	87.21	6.6	33.31	8.0	25.1	1.36
A7	02 Apr 2015	17	12.53	86.99	6.5	33.31	8.0	25.2	1.27
A7	02 Apr 2015	18	12.10	87.09	6.2	33.35	8.0	25.3	1.17
A7	10 Apr 2015	1	15.76	76.93	7.1	33.30	8.2	24.5	0.89
A7	10 Apr 2015	2	15.72	77.06	7.2	33.37	8.2	24.6	1.04
A7	10 Apr 2015	3	15.61	76.96	7.9	33.45	8.2	24.6	3.24
A7	10 Apr 2015	4	15.55	76.12	8.0	33.42	8.1	24.6	3.81
A7	10 Apr 2015	5	15.51	75.99	7.8	33.37	8.1	24.6	3.68
A7	10 Apr 2015	6	15.07	76.19	8.0	33.48	8.1	24.8	3.74
A7	10 Apr 2015	7	14.81	76.78	8.1	33.48	8.1	24.9	3.87
A7	10 Apr 2015	8	14.64	77.18	8.0	33.44	8.1	24.8	4.30
A7	10 Apr 2015	9	14.45	78.32	7.9	33.41	8.1	24.9	4.71

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
A7	10 Apr 2015	10	14.26	79.41	7.7	33.38	8.1	24.9	4.43
A7	10 Apr 2015	11	13.89	80.36	7.5	33.37	8.1	25.0	4.01
A7	10 Apr 2015	12	13.23	81.36	7.3	33.40	8.1	25.1	3.64
A7	10 Apr 2015	13	12.67	84.14	6.9	33.39	8.0	25.2	3.10
A7	10 Apr 2015	14	12.24	85.55	6.6	33.40	8.0	25.3	2.75
A7	10 Apr 2015	15	11.90	86.65	6.3	33.41	8.0	25.4	2.45
A7	10 Apr 2015	16	11.55	87.68	6.1	33.42	8.0	25.4	2.22
A7	10 Apr 2015	17	11.31	88.74	5.8	33.44	7.9	25.5	1.77
A7	10 Apr 2015	18	11.18	89.96	5.6	33.45	7.9	25.5	1.46
A7	10 Apr 2015	19	11.07	90.17	5.5	33.47	7.9	25.6	1.31
A7	15 Apr 2015	1	15.93	80.60	8.6	33.37	8.2	24.5	2.64
A7	15 Apr 2015	2	16.10	80.72	8.4	33.37	8.2	24.5	2.73
A7	15 Apr 2015	3	15.42	80.72	8.2	33.32	8.2	24.6	3.26
A7	15 Apr 2015	4	14.75	81.12	8.2	33.34	8.2	24.8	4.11
A7	15 Apr 2015	5	14.45	81.73	8.2	33.34	8.1	24.8	4.77
A7	15 Apr 2015	6	14.48	81.88	8.2	33.35	8.1	24.8	4.73
A7	15 Apr 2015	7	14.32	81.90	8.2	33.33	8.1	24.8	5.54
A7	15 Apr 2015	8	14.07	81.88	8.2	33.33	8.1	24.9	6.08
A7	15 Apr 2015	9	13.81	81.54	8.2	33.33	8.1	24.9	6.19
A7	15 Apr 2015	10	13.72	81.40	8.1	33.34	8.1	25.0	5.75
A7	15 Apr 2015	11	13.65	81.60	7.9	33.34	8.1	25.0	5.27
A7	15 Apr 2015	12	13.61	82.06	7.8	33.35	8.1	25.0	4.66
A7	15 Apr 2015	13	13.58	83.00	7.6	33.35	8.1	25.0	4.07
A7	15 Apr 2015	14	13.41	83.43	7.3	33.37	8.1	25.0	3.31
A7	15 Apr 2015	15	13.04	84.93	7.1	33.35	8.1	25.1	2.87
A7	15 Apr 2015	16	12.38	85.46	6.7	33.38	8.1	25.3	2.59
A7	15 Apr 2015	17	12.12	86.58	6.4	33.36	8.1	25.3	2.27
A7	15 Apr 2015	18	11.77	87.06	6.2	33.36	8.0	25.4	1.93
A7	15 Apr 2015	19	11.41	87.61	6.0	33.42	8.0	25.5	1.76
A7	15 Apr 2015	20	11.34	87.25	5.9	33.43	8.0	25.5	1.46
A7	21 Apr 2015	1	17.35	85.72	8.4	33.34	8.2	24.2	1.41
A7	21 Apr 2015	2	16.73	85.81	8.3	33.27	8.2	24.3	1.94
A7	21 Apr 2015	3	15.54	85.61	8.5	33.30	8.2	24.5	2.56
A7	21 Apr 2015	4	14.75	84.63	8.6	33.27	8.2	24.7	3.12
A7	21 Apr 2015	5	14.33	83.36	8.3	33.26	8.2	24.8	3.36
A7	21 Apr 2015	6	13.66	82.83	8.1	33.28	8.2	24.9	3.33
A7	21 Apr 2015	7	13.40	83.48	7.7	33.30	8.1	25.0	3.23
A7	21 Apr 2015	8	12.96	85.55	7.4	33.31	8.1	25.1	4.74
A7	21 Apr 2015	9	12.80	84.29	7.2	33.32	8.1	25.1	4.54
A7	21 Apr 2015	10	12.41	83.44	6.9	33.33	8.0	25.2	2.70
A7	21 Apr 2015	11	12.04	87.43	6.7	33.35	8.0	25.3	2.17
A7	21 Apr 2015	12	11.93	88.76	6.5	33.35	8.0	25.3	1.96
A7	21 Apr 2015	13	11.80	89.27	6.4	33.36	8.0	25.4	1.90
A7	21 Apr 2015	14	11.70	89.50	6.3	33.37	8.0	25.4	1.73
A7	21 Apr 2015	15	11.63	89.57	6.1	33.38	8.0	25.4	1.59
A7	21 Apr 2015	16	11.61	89.66	6.1	33.38	8.0	25.4	1.56
A7	21 Apr 2015	17	11.59	89.62	6.1	33.38	8.0	25.4	1.67
A7	21 Apr 2015	18	11.59	89.77	6.1	33.38	8.0	25.4	1.57
A7	21 Apr 2015	19	11.59	89.71	6.1	33.38	7.9	25.4	1.62
A7	28 Apr 2015	1	17.29	81.58	8.6	33.34	8.2	24.2	1.71
A7	28 Apr 2015	2	17.27	81.65	8.5	33.34	8.2	24.2	1.75
A7	28 Apr 2015	3	17.22	81.95	8.4	33.34	8.2	24.2	1.92
A7	28 Apr 2015	4	17.23	81.97	8.4	33.34	8.2	24.2	3.58
A7	28 Apr 2015	5	17.02	81.00	8.3	33.33	8.2	24.2	3.13

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
A7	28 Apr 2015	6	16.82	81.33	8.1	33.33	8.2	24.3	2.80
A7	28 Apr 2015	7	16.43	81.68	7.9	33.31	8.2	24.3	2.55
A7	28 Apr 2015	8	15.93	82.71	7.8	33.31	8.2	24.5	2.31
A7	28 Apr 2015	9	15.00	83.70	7.5	33.27	8.1	24.6	1.95
A7	28 Apr 2015	10	14.01	85.04	7.4	33.30	8.1	24.9	1.84
A7	28 Apr 2015	11	13.63	85.94	7.3	33.29	8.1	24.9	1.77
A7	28 Apr 2015	12	13.26	86.68	7.1	33.28	8.1	25.0	1.77
A7	28 Apr 2015	13	12.94	87.10	6.9	33.28	8.1	25.1	1.79
A7	28 Apr 2015	14	12.65	87.33	6.8	33.30	8.0	25.1	1.66
A7	28 Apr 2015	15	12.52	87.40	6.6	33.32	8.0	25.2	1.63
A7	28 Apr 2015	16	12.43	87.37	6.4	33.33	8.0	25.2	1.54
A7	28 Apr 2015	17	12.00	87.81	6.1	33.33	8.0	25.3	1.29
A7	28 Apr 2015	18	11.58	88.05	5.9	33.35	8.0	25.4	1.23
A7	28 Apr 2015	19	11.31	88.65	5.7	33.38	7.9	25.5	1.08
C7	02 Apr 2015	1	17.18	69.08	8.1	33.33	8.2	24.2	2.19
C7	02 Apr 2015	2	17.19	74.36	8.1	33.34	8.2	24.2	2.36
C7	02 Apr 2015	3	17.15	75.85	8.0	33.33	8.2	24.2	2.73
C7	02 Apr 2015	4	16.81	76.53	8.2	33.32	8.2	24.3	3.80
C7	02 Apr 2015	5	16.31	76.24	8.2	33.32	8.2	24.4	5.31
C7	02 Apr 2015	6	15.65	75.32	7.9	33.29	8.2	24.5	6.60
C7	02 Apr 2015	7	14.53	73.25	7.6	33.31	8.1	24.8	5.51
C7	02 Apr 2015	8	13.97	74.14	7.4	33.29	8.1	24.9	3.91
C7	02 Apr 2015	9	13.57	78.77	7.2	33.30	8.1	25.0	3.03
C7	02 Apr 2015	10	13.35	82.10	7.0	33.30	8.1	25.0	2.43
C7	02 Apr 2015	11	13.20	84.41	7.0	33.31	8.1	25.0	2.14
C7	02 Apr 2015	12	13.10	86.19	6.9	33.31	8.1	25.1	1.92
C7	02 Apr 2015	13	13.01	86.71	6.8	33.32	8.1	25.1	1.71
C7	02 Apr 2015	14	12.92	86.57	6.7	33.32	8.0	25.1	1.62
C7	02 Apr 2015	15	12.78	85.38	6.5	33.33	8.0	25.1	1.49
C7	02 Apr 2015	16	12.66	84.50	6.3	33.34	8.0	25.2	1.37
C7	02 Apr 2015	17	12.57	84.26	6.2	33.34	8.0	25.2	1.19
C7	02 Apr 2015	18	12.50	83.61	6.1	33.35	8.0	25.2	1.06
C7	02 Apr 2015	19	12.51	82.97	6.1	33.35	8.0	25.2	1.06
C7	10 Apr 2015	1	16.25	78.50	8.4	33.38	8.2	24.4	2.54
C7	10 Apr 2015	2	16.19	78.54	8.3	33.38	8.2	24.5	3.03
C7	10 Apr 2015	3	16.10	78.65	8.3	33.38	8.2	24.5	3.55
C7	10 Apr 2015	4	15.88	77.65	8.2	33.36	8.2	24.5	4.36
C7	10 Apr 2015	5	15.41	77.42	8.0	33.34	8.2	24.6	5.99
C7	10 Apr 2015	6	14.57	77.09	7.8	33.37	8.1	24.8	7.82
C7	10 Apr 2015	7	14.17	77.13	7.6	33.35	8.1	24.9	6.01
C7	10 Apr 2015	8	13.89	80.00	7.4	33.36	8.1	24.9	5.67
C7	10 Apr 2015	9	13.22	81.27	7.1	33.35	8.1	25.1	5.00
C7	10 Apr 2015	10	12.89	81.98	6.9	33.36	8.0	25.1	3.85
C7	10 Apr 2015	11	12.68	82.89	6.7	33.35	8.0	25.2	3.20
C7	10 Apr 2015	12	12.32	83.64	6.4	33.37	8.0	25.3	2.50
C7	10 Apr 2015	13	12.07	85.76	6.1	33.38	8.0	25.3	1.97
C7	10 Apr 2015	14	11.81	86.92	5.9	33.38	8.0	25.4	1.63
C7	10 Apr 2015	15	11.65	88.51	5.8	33.40	7.9	25.4	1.35
C7	10 Apr 2015	16	11.57	89.61	5.6	33.40	7.9	25.4	1.13
C7	10 Apr 2015	17	11.45	90.10	5.5	33.41	7.9	25.5	0.95
C7	15 Apr 2015	1	16.12	72.57	8.2	33.39	8.2	24.5	2.43
C7	15 Apr 2015	2	15.90	72.42	8.1	33.36	8.2	24.5	3.60
C7	15 Apr 2015	3	14.70	72.33	8.0	33.35	8.2	24.8	5.69
C7	15 Apr 2015	4	13.93	73.69	7.8	33.37	8.1	24.9	5.24

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
C7	15 Apr 2015	5	13.40	77.27	7.4	33.34	8.1	25.0	4.22
C7	15 Apr 2015	6	12.68	81.06	7.1	33.36	8.1	25.2	3.48
C7	15 Apr 2015	7	12.36	84.46	6.9	33.36	8.0	25.2	3.00
C7	15 Apr 2015	8	12.07	86.30	6.7	33.37	8.0	25.3	2.73
C7	15 Apr 2015	9	11.94	87.43	6.5	33.38	8.0	25.3	2.49
C7	15 Apr 2015	10	11.79	87.88	6.4	33.37	8.0	25.4	2.15
C7	15 Apr 2015	11	11.69	88.16	6.3	33.38	8.0	25.4	2.07
C7	15 Apr 2015	12	11.64	88.45	6.2	33.39	8.0	25.4	1.96
C7	15 Apr 2015	13	11.55	88.39	6.0	33.39	8.0	25.4	1.78
C7	15 Apr 2015	14	11.41	88.38	5.9	33.40	8.0	25.5	1.66
C7	15 Apr 2015	15	11.27	88.14	5.8	33.42	7.9	25.5	1.45
C7	15 Apr 2015	16	11.18	87.49	5.7	33.43	7.9	25.5	1.26
C7	15 Apr 2015	17	11.15	87.03	5.6	33.44	7.9	25.5	1.13
C7	15 Apr 2015	18	11.16	85.80	5.6	33.44	7.9	25.5	1.05
C7	21 Apr 2015	1	17.19	86.06	8.5	33.34	8.2	24.2	1.35
C7	21 Apr 2015	2	16.94	86.06	8.5	33.33	8.2	24.2	1.78
C7	21 Apr 2015	3	16.56	85.19	8.7	33.32	8.2	24.3	2.43
C7	21 Apr 2015	4	16.23	84.32	8.8	33.33	8.2	24.4	2.80
C7	21 Apr 2015	5	16.03	81.93	8.6	33.32	8.2	24.4	3.14
C7	21 Apr 2015	6	14.52	80.44	8.3	33.27	8.2	24.7	4.17
C7	21 Apr 2015	7	13.84	80.28	8.3	33.28	8.2	24.9	4.51
C7	21 Apr 2015	8	13.55	80.37	8.1	33.29	8.1	25.0	4.39
C7	21 Apr 2015	9	13.44	81.21	8.0	33.30	8.1	25.0	4.23
C7	21 Apr 2015	10	13.36	81.99	7.8	33.30	8.1	25.0	4.01
C7	21 Apr 2015	11	13.27	82.83	7.6	33.31	8.1	25.0	3.54
C7	21 Apr 2015	12	13.16	84.32	7.4	33.32	8.1	25.1	2.85
C7	21 Apr 2015	13	13.03	86.33	7.1	33.33	8.1	25.1	2.18
C7	21 Apr 2015	14	12.83	87.79	6.9	33.33	8.0	25.1	1.78
C7	21 Apr 2015	15	12.70	88.01	6.8	33.34	8.0	25.2	1.62
C7	21 Apr 2015	16	12.55	87.62	6.6	33.35	8.0	25.2	1.52
C7	21 Apr 2015	17	12.52	86.94	6.5	33.35	8.0	25.2	1.31
C7	21 Apr 2015	18	12.49	86.60	6.5	33.35	8.0	25.2	1.28
C7	28 Apr 2015	1	17.43	85.91	8.3	33.34	8.2	24.1	0.89
C7	28 Apr 2015	2	17.40	85.78	8.3	33.34	8.2	24.1	0.94
C7	28 Apr 2015	3	17.34	85.84	8.2	33.34	8.2	24.2	1.06
C7	28 Apr 2015	4	17.28	85.79	8.2	33.33	8.2	24.2	1.49
C7	28 Apr 2015	5	17.16	84.92	8.1	33.33	8.2	24.2	1.80
C7	28 Apr 2015	6	16.92	83.83	8.0	33.33	8.2	24.3	2.02
C7	28 Apr 2015	7	16.78	83.80	7.9	33.33	8.2	24.3	2.09
C7	28 Apr 2015	8	16.58	83.37	7.9	33.32	8.2	24.3	2.11
C7	28 Apr 2015	9	16.37	83.57	7.9	33.31	8.2	24.4	2.02
C7	28 Apr 2015	10	16.01	83.51	7.8	33.32	8.2	24.5	1.89
C7	28 Apr 2015	11	15.70	83.58	7.6	33.31	8.2	24.5	1.74
C7	28 Apr 2015	12	15.10	83.64	7.4	33.29	8.1	24.6	1.57
C7	28 Apr 2015	13	14.58	84.10	7.2	33.31	8.1	24.8	1.36
C7	28 Apr 2015	14	13.96	84.42	6.9	33.29	8.1	24.9	1.17
C7	28 Apr 2015	15	13.38	85.33	6.5	33.31	8.1	25.0	1.06
C7	28 Apr 2015	16	12.57	85.87	6.3	33.28	8.0	25.1	1.03
C7	28 Apr 2015	17	11.91	87.02	6.0	33.34	8.0	25.3	0.99
C7	28 Apr 2015	18	11.67	87.56	5.9	33.34	8.0	25.4	0.88
C8	02 Apr 2015	1	17.13	79.14	8.1	33.33	8.2	24.2	1.98
C8	02 Apr 2015	2	16.93	79.11	8.1	33.31	8.2	24.2	2.54
C8	02 Apr 2015	3	16.42	77.97	8.0	33.32	8.2	24.4	3.84
C8	02 Apr 2015	4	16.09	76.14	7.8	33.30	8.2	24.4	5.06

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
C8	02 Apr 2015	5	14.94	75.09	7.6	33.28	8.2	24.7	5.31
C8	02 Apr 2015	6	14.35	76.48	7.2	33.30	8.1	24.8	4.48
C8	02 Apr 2015	7	13.92	80.03	7.1	33.31	8.1	24.9	3.70
C8	02 Apr 2015	8	13.80	81.74	7.0	33.29	8.1	24.9	3.24
C8	02 Apr 2015	9	13.50	83.83	7.0	33.31	8.1	25.0	2.80
C8	02 Apr 2015	10	13.48	85.70	6.9	33.31	8.1	25.0	2.60
C8	02 Apr 2015	11	13.35	85.40	6.7	33.30	8.1	25.0	2.40
C8	02 Apr 2015	12	13.14	85.29	6.6	33.33	8.0	25.1	2.29
C8	02 Apr 2015	13	13.10	86.43	6.6	33.33	8.0	25.1	2.29
C8	02 Apr 2015	14	13.06	86.63	6.5	33.33	8.0	25.1	1.96
C8	02 Apr 2015	15	13.01	86.83	6.2	33.34	8.0	25.1	1.50
C8	02 Apr 2015	16	12.95	85.13	6.2	33.34	8.0	25.1	1.32
C8	02 Apr 2015	17	12.82	83.38	6.2	33.34	8.0	25.1	1.39
C8	02 Apr 2015	18	12.67	85.15	6.3	33.34	8.0	25.2	1.49
C8	02 Apr 2015	19	12.66	83.13	6.3	33.34	8.0	25.2	1.49
C8	02 Apr 2015	20	12.69	81.92	6.3	33.34	8.0	25.2	1.49
C8	10 Apr 2015	1	16.03	77.71	8.0	33.36	8.2	24.5	2.18
C8	10 Apr 2015	2	15.95	77.68	7.9	33.35	8.1	24.5	2.79
C8	10 Apr 2015	3	15.40	77.41	7.9	33.35	8.2	24.6	3.83
C8	10 Apr 2015	4	14.97	76.77	7.8	33.33	8.1	24.7	4.50
C8	10 Apr 2015	5	14.43	76.40	7.8	33.34	8.1	24.8	4.63
C8	10 Apr 2015	6	14.08	76.67	7.7	33.32	8.1	24.9	4.77
C8	10 Apr 2015	7	13.76	77.94	7.5	33.34	8.1	25.0	4.80
C8	10 Apr 2015	8	13.56	79.04	7.5	33.34	8.1	25.0	4.75
C8	10 Apr 2015	9	13.45	79.60	7.4	33.35	8.1	25.0	4.68
C8	10 Apr 2015	10	13.42	80.36	7.4	33.35	8.1	25.0	4.63
C8	10 Apr 2015	11	13.35	80.71	7.1	33.34	8.1	25.0	4.43
C8	10 Apr 2015	12	12.59	80.99	6.8	33.34	8.1	25.2	3.75
C8	10 Apr 2015	13	12.09	81.40	6.5	33.36	8.0	25.3	3.04
C8	10 Apr 2015	14	11.90	84.22	6.3	33.38	8.0	25.4	2.76
C8	10 Apr 2015	15	11.82	85.97	6.1	33.39	8.0	25.4	2.38
C8	10 Apr 2015	16	11.66	86.52	5.9	33.39	8.0	25.4	1.82
C8	10 Apr 2015	17	11.51	87.48	5.8	33.41	7.9	25.4	1.57
C8	10 Apr 2015	18	11.46	88.81	5.6	33.42	7.9	25.5	1.39
C8	10 Apr 2015	19	11.45	88.84	5.6	33.42	7.9	25.5	1.31
C8	15 Apr 2015	1	17.03	77.74	8.6	33.39	8.2	24.3	1.49
C8	15 Apr 2015	2	16.52	78.56	8.4	33.30	8.2	24.3	2.83
C8	15 Apr 2015	3	14.76	77.59	8.2	33.33	8.2	24.7	5.92
C8	15 Apr 2015	4	14.03	75.49	7.8	33.35	8.2	24.9	6.68
C8	15 Apr 2015	5	13.45	74.49	7.4	33.33	8.1	25.0	5.14
C8	15 Apr 2015	6	12.89	72.93	7.2	33.35	8.1	25.1	3.77
C8	15 Apr 2015	7	12.72	75.48	6.8	33.37	8.0	25.2	2.91
C8	15 Apr 2015	8	12.36	77.98	6.5	33.35	8.0	25.2	2.15
C8	15 Apr 2015	9	12.02	83.50	6.3	33.37	8.0	25.3	1.70
C8	15 Apr 2015	10	11.90	86.15	6.0	33.38	8.0	25.4	1.28
C8	15 Apr 2015	11	11.82	87.01	6.0	33.39	8.0	25.4	1.17
C8	15 Apr 2015	12	11.80	87.60	5.9	33.40	8.0	25.4	1.12
C8	15 Apr 2015	13	11.79	86.93	5.8	33.40	8.0	25.4	1.16
C8	15 Apr 2015	14	11.74	85.86	5.9	33.40	8.0	25.4	1.23
C8	15 Apr 2015	15	11.60	85.20	5.8	33.41	8.0	25.4	1.29
C8	15 Apr 2015	16	11.40	86.18	5.8	33.41	8.0	25.5	1.23
C8	15 Apr 2015	17	11.27	88.22	5.7	33.43	7.9	25.5	1.19
C8	15 Apr 2015	18	11.25	88.93	5.7	33.44	7.9	25.5	1.19
C8	15 Apr 2015	19	11.26	87.91	5.7	33.44	7.9	25.5	1.18

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
C8	21 Apr 2015	1	17.06	84.17	8.8	33.34	8.1	24.2	1.23
C8	21 Apr 2015	2	16.47	84.16	8.8	33.29	8.1	24.3	2.03
C8	21 Apr 2015	3	15.33	83.54	8.8	33.31	8.1	24.6	3.72
C8	21 Apr 2015	4	14.91	81.40	8.6	33.31	8.1	24.7	5.17
C8	21 Apr 2015	5	14.53	77.95	8.4	33.31	8.1	24.8	5.62
C8	21 Apr 2015	6	14.24	75.27	8.2	33.32	8.0	24.8	5.91
C8	21 Apr 2015	7	14.03	76.49	8.1	33.32	8.0	24.9	6.07
C8	21 Apr 2015	8	13.88	77.36	8.0	33.32	8.0	24.9	5.98
C8	21 Apr 2015	9	13.80	78.06	7.9	33.33	8.0	24.9	5.29
C8	21 Apr 2015	10	13.72	79.35	7.8	33.32	8.0	25.0	4.96
C8	21 Apr 2015	11	13.65	80.98	7.7	33.33	8.0	25.0	4.40
C8	21 Apr 2015	12	13.56	81.87	7.6	33.33	8.0	25.0	4.13
C8	21 Apr 2015	13	13.40	82.54	7.4	33.32	8.0	25.0	3.50
C8	21 Apr 2015	14	13.04	83.30	7.0	33.34	8.0	25.1	2.56
C8	21 Apr 2015	15	12.77	84.97	6.5	33.36	7.9	25.2	1.77
C8	21 Apr 2015	16	12.66	87.76	6.4	33.36	7.9	25.2	1.35
C8	21 Apr 2015	17	12.51	88.81	6.5	33.35	7.9	25.2	1.35
C8	21 Apr 2015	18	12.47	88.46	6.5	33.35	7.9	25.2	1.48
C8	21 Apr 2015	19	12.46	88.01	6.5	33.35	7.9	25.2	1.43
C8	28 Apr 2015	1	17.11	86.52	8.0	33.34	8.2	24.2	0.50
C8	28 Apr 2015	2	16.99	86.51	8.0	33.32	8.2	24.2	0.52
C8	28 Apr 2015	3	16.83	86.80	8.1	33.32	8.2	24.3	0.56
C8	28 Apr 2015	4	16.63	86.91	8.1	33.31	8.2	24.3	0.55
C8	28 Apr 2015	5	16.45	87.18	8.1	33.30	8.2	24.3	0.61
C8	28 Apr 2015	6	16.16	88.19	8.2	33.29	8.2	24.4	0.69
C8	28 Apr 2015	7	15.87	88.17	8.3	33.27	8.2	24.4	0.78
C8	28 Apr 2015	8	15.54	88.74	8.3	33.26	8.2	24.5	0.91
C8	28 Apr 2015	9	15.28	88.89	8.3	33.25	8.2	24.6	1.04
C8	28 Apr 2015	10	15.04	89.01	8.2	33.25	8.2	24.6	1.17
C8	28 Apr 2015	11	14.70	88.79	8.1	33.25	8.2	24.7	1.33
C8	28 Apr 2015	12	14.45	88.26	8.1	33.25	8.2	24.7	1.48
C8	28 Apr 2015	13	14.17	87.85	7.8	33.24	8.1	24.8	1.62
C8	28 Apr 2015	14	13.42	87.62	7.7	33.21	8.1	24.9	1.79
C8	28 Apr 2015	15	12.99	87.22	7.6	33.24	8.1	25.0	1.92
C8	28 Apr 2015	16	12.76	87.56	7.4	33.25	8.1	25.1	1.94
C8	28 Apr 2015	17	12.60	87.75	7.2	33.26	8.1	25.1	1.88
C8	28 Apr 2015	18	12.52	87.61	7.1	33.28	8.1	25.2	1.83
C8	28 Apr 2015	19	12.48	87.52	7.1	33.28	8.1	25.2	1.83
C8	28 Apr 2015	20	12.37	87.52	7.0	33.29	8.1	25.2	1.75

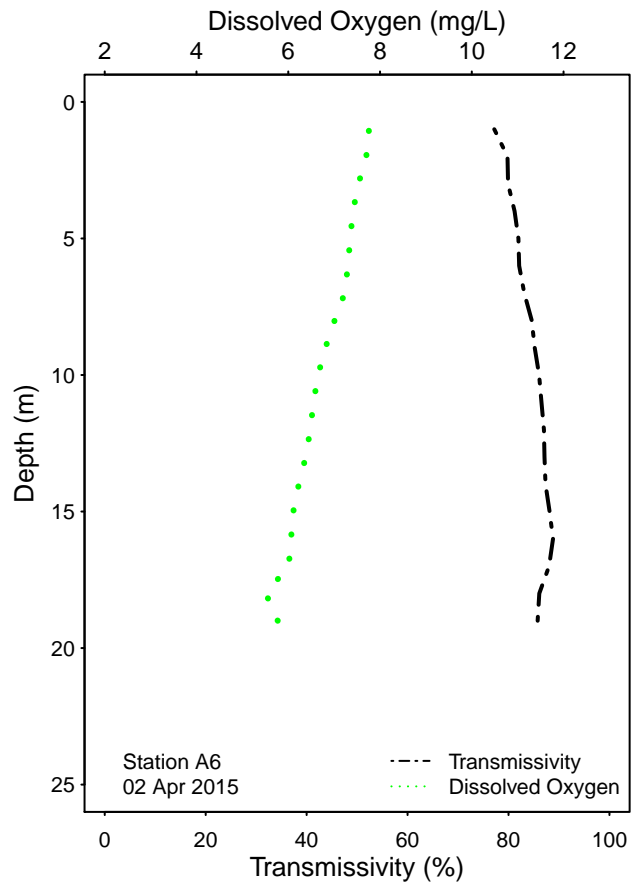
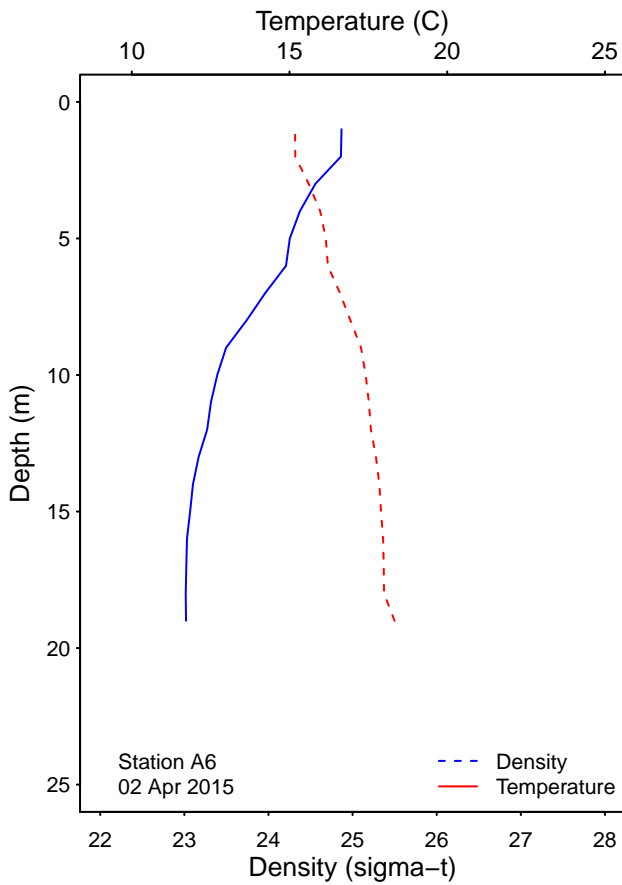
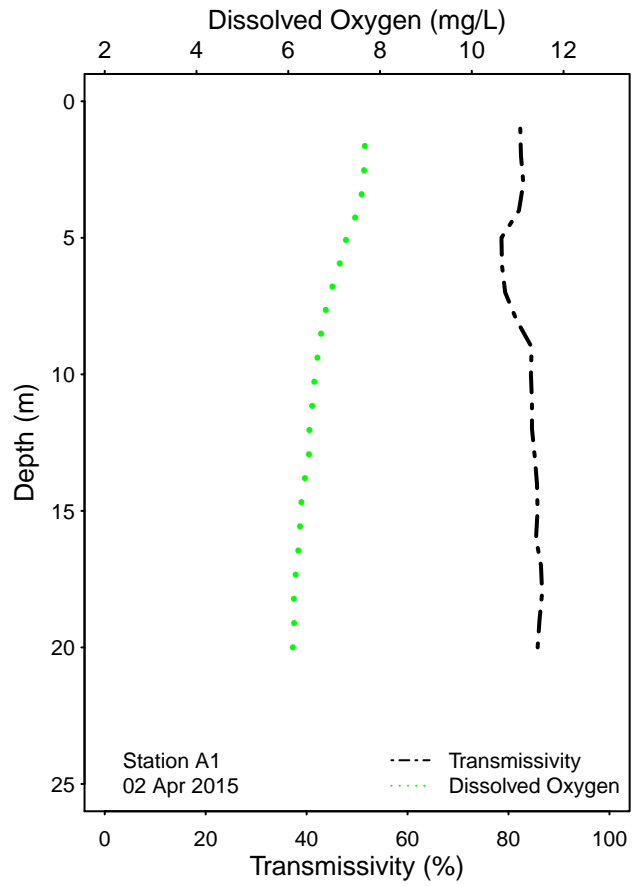
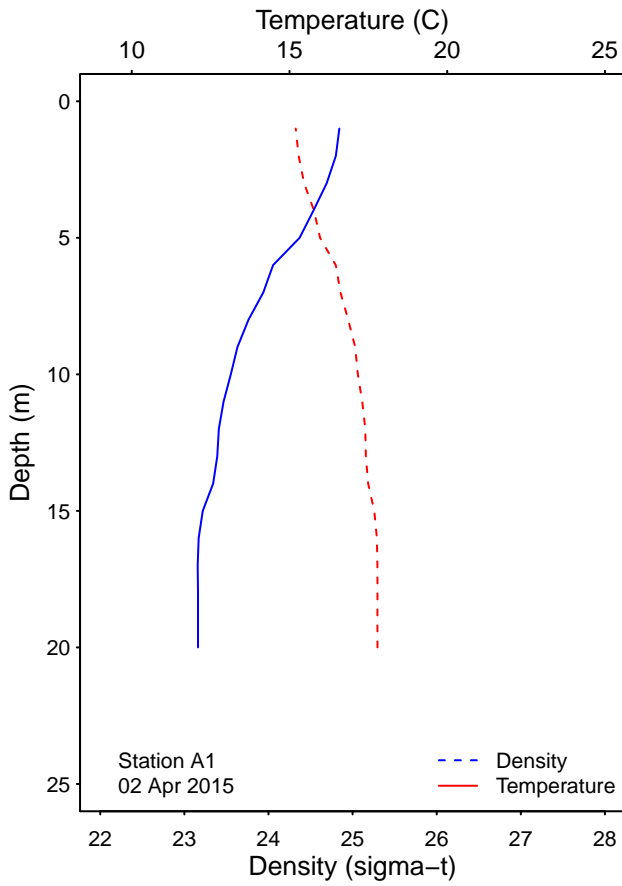


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

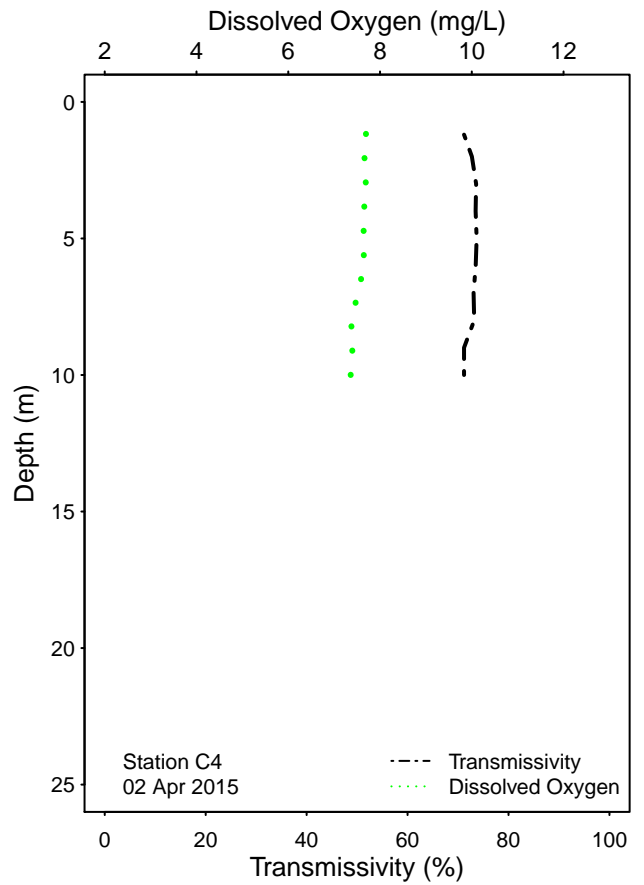
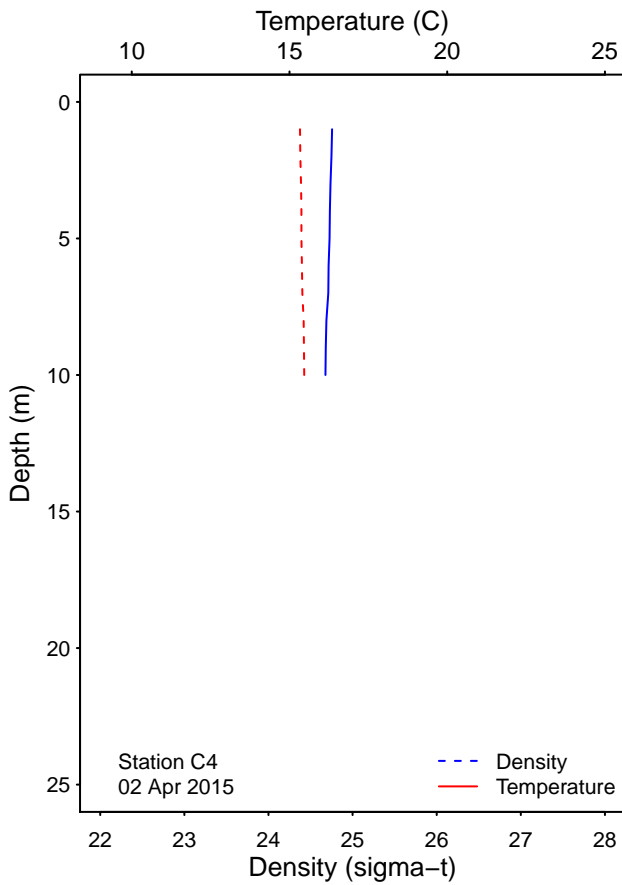
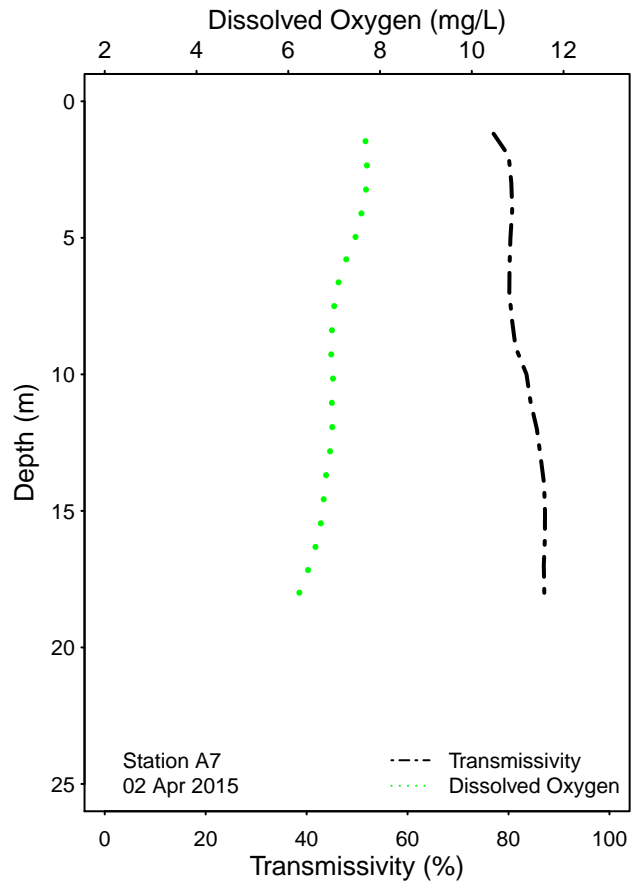
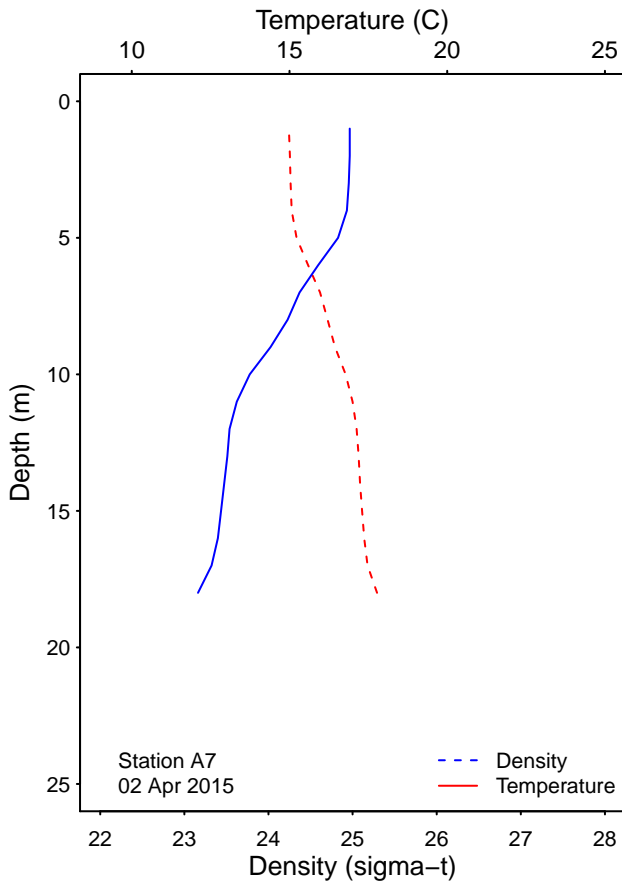


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

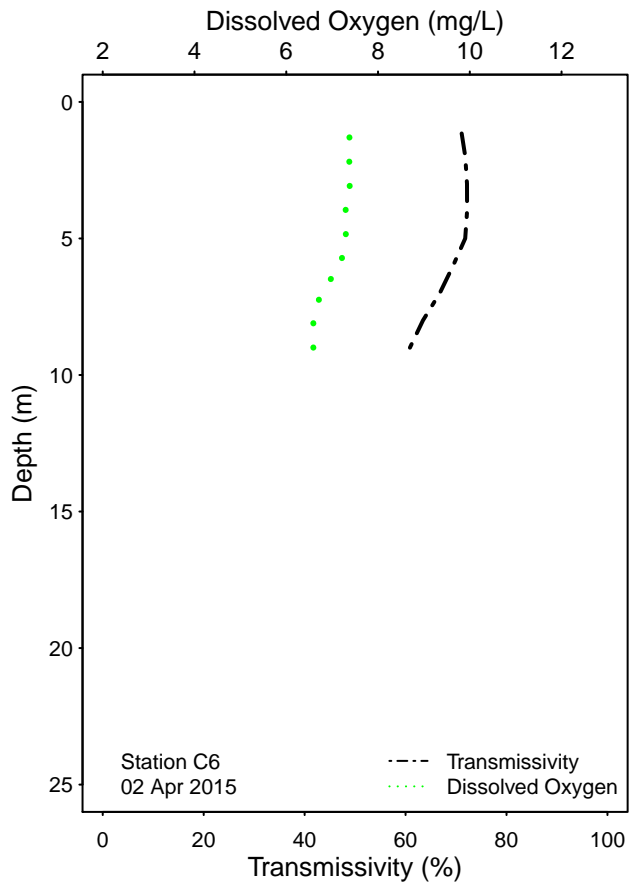
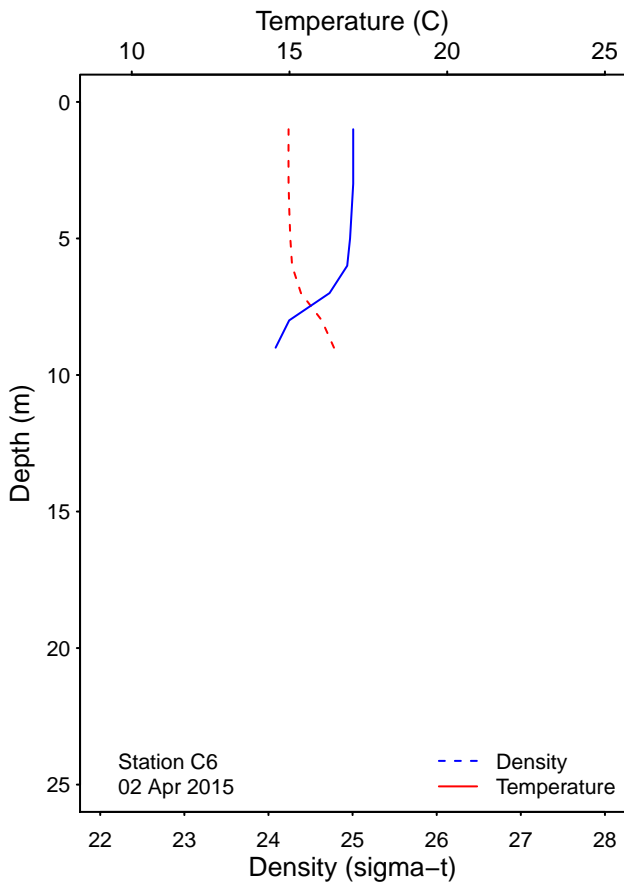
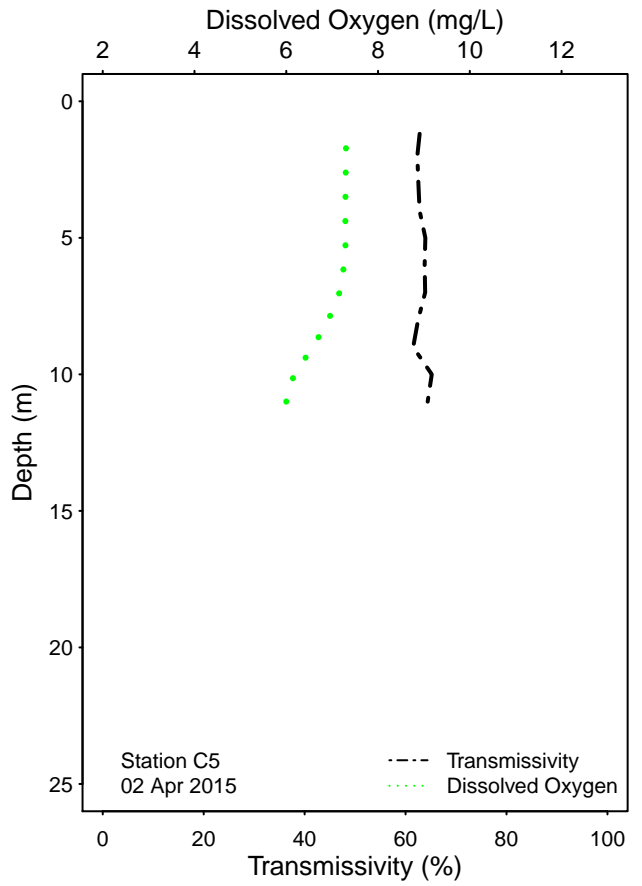
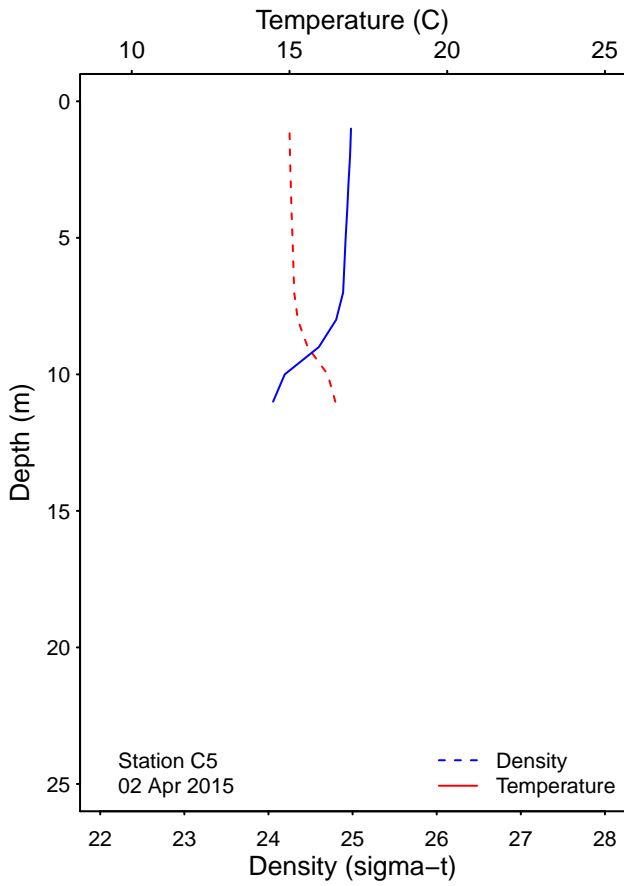


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

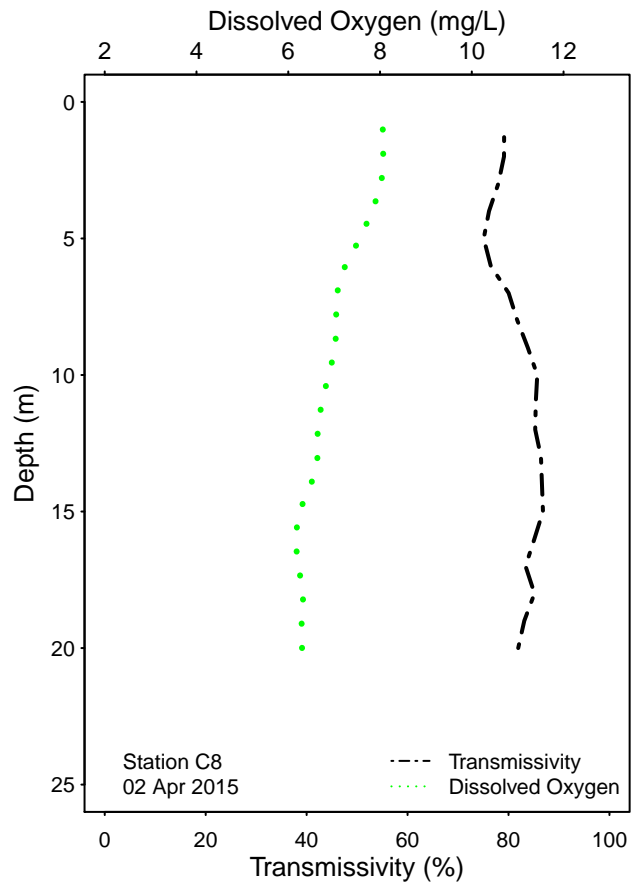
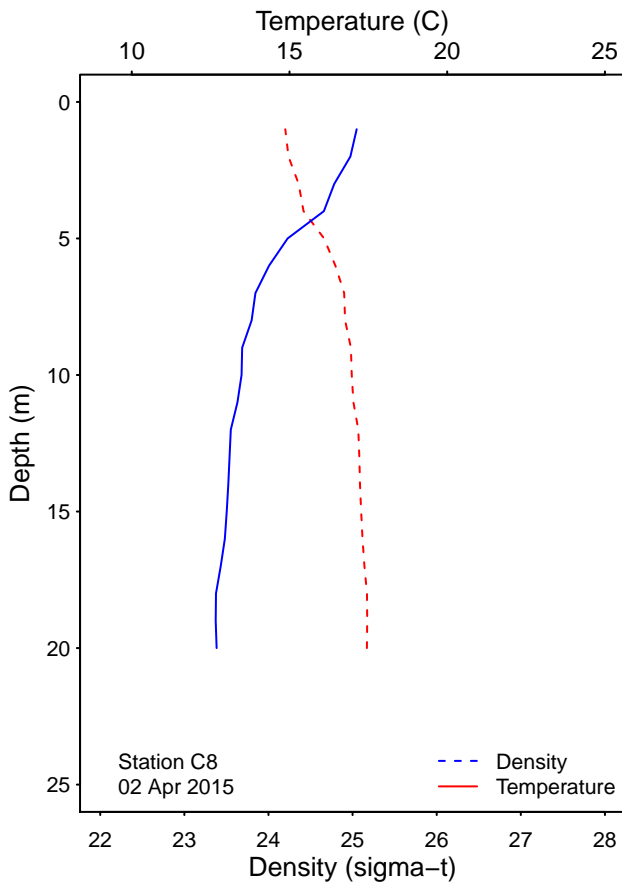
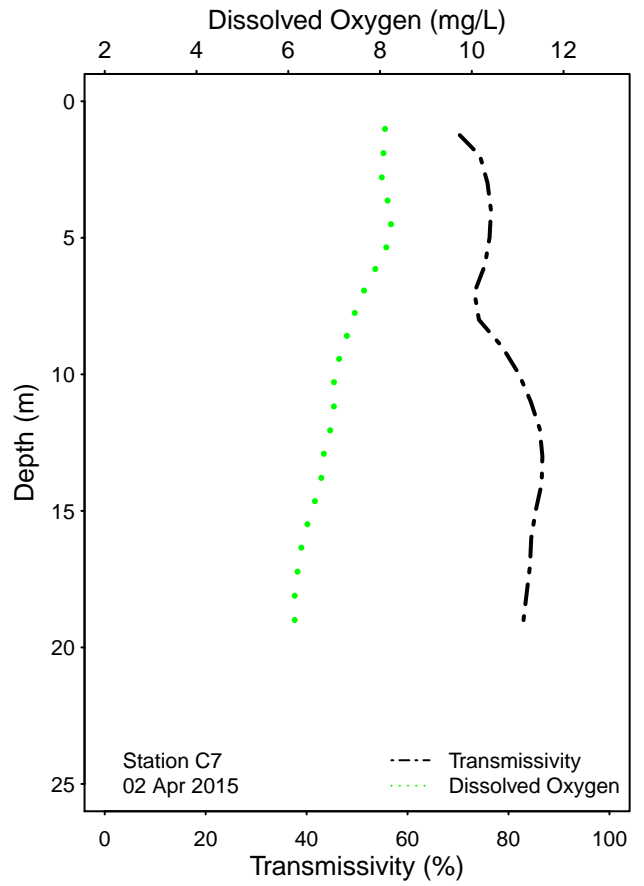
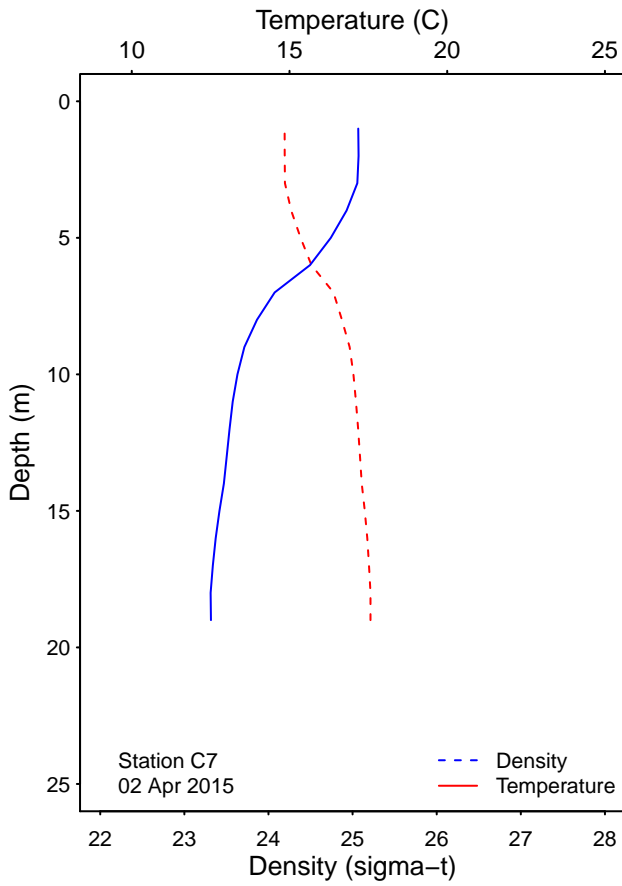


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

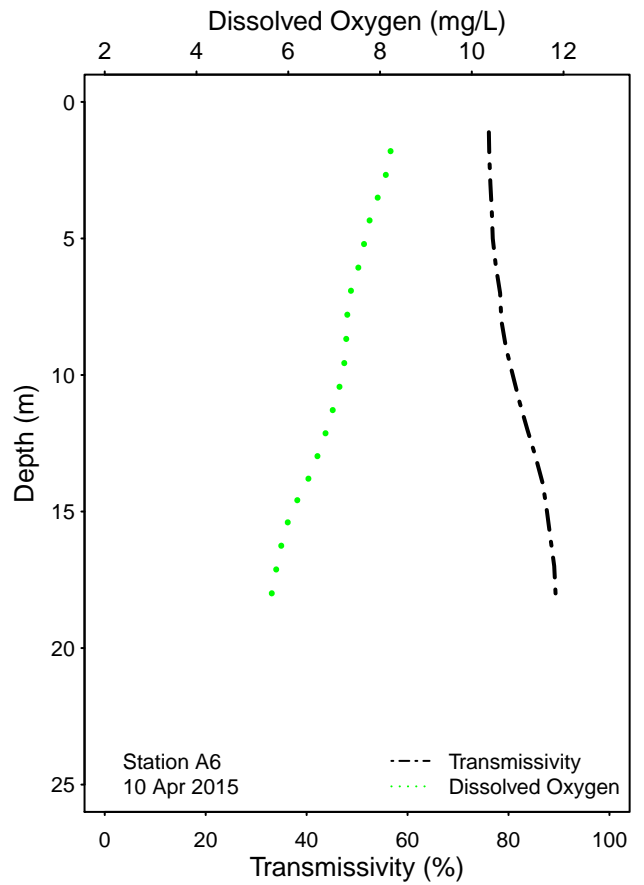
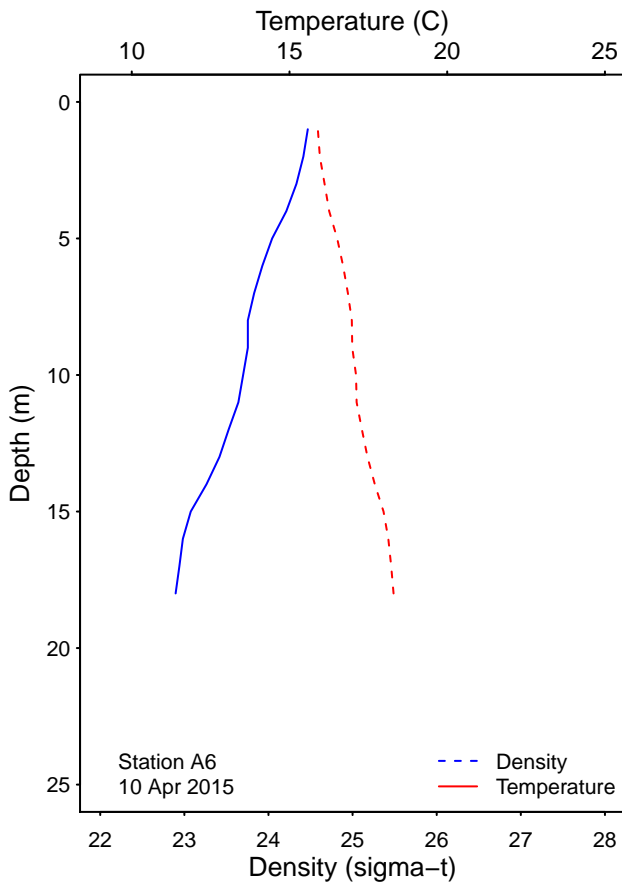
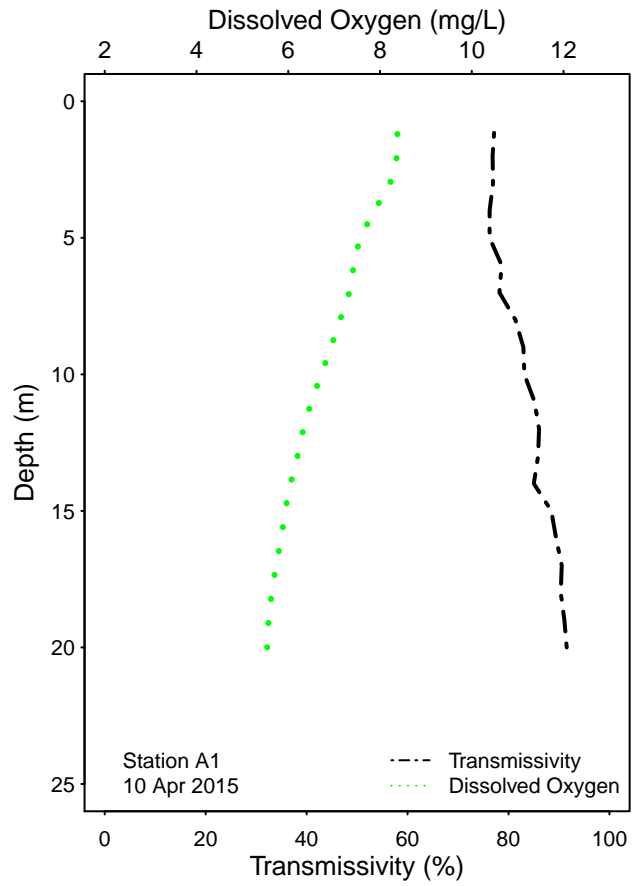
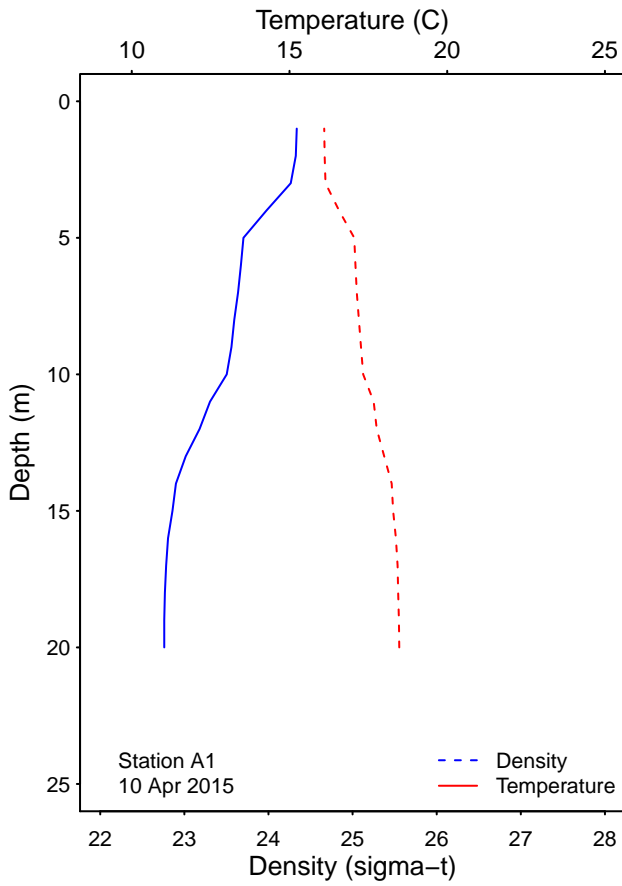


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

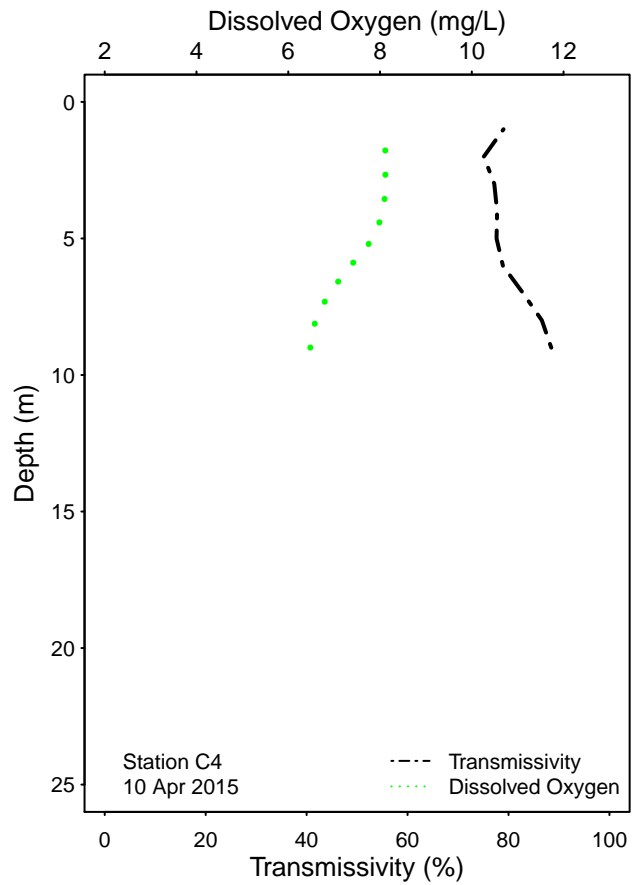
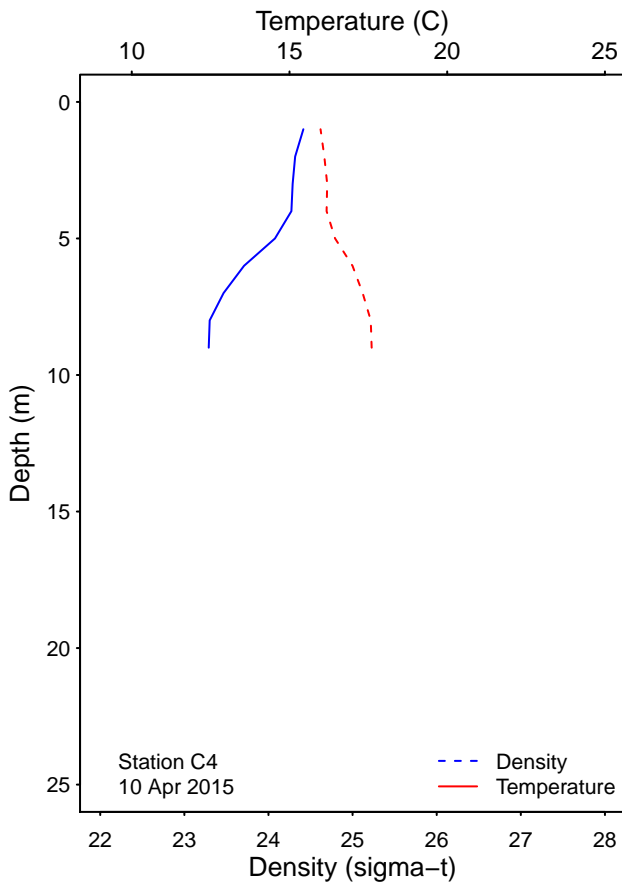
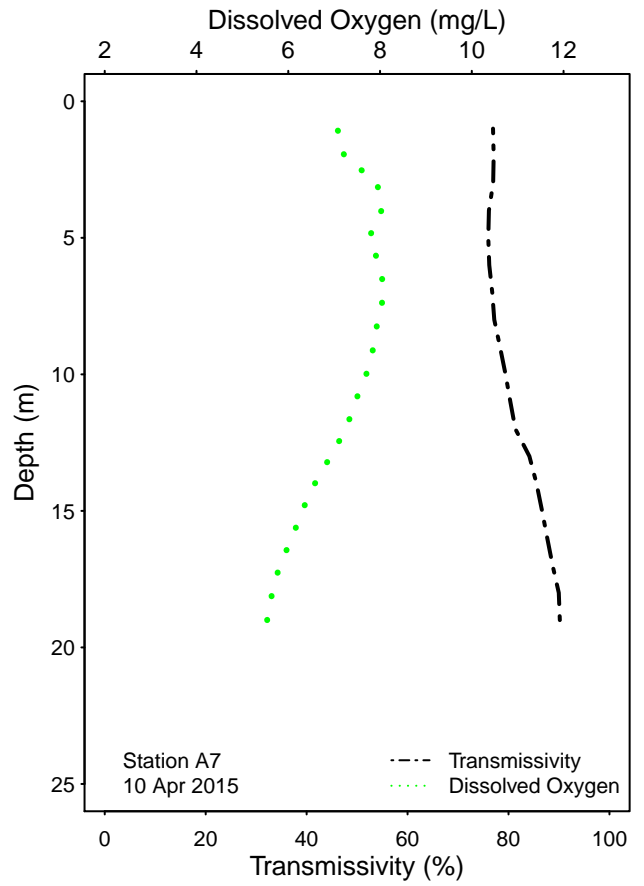
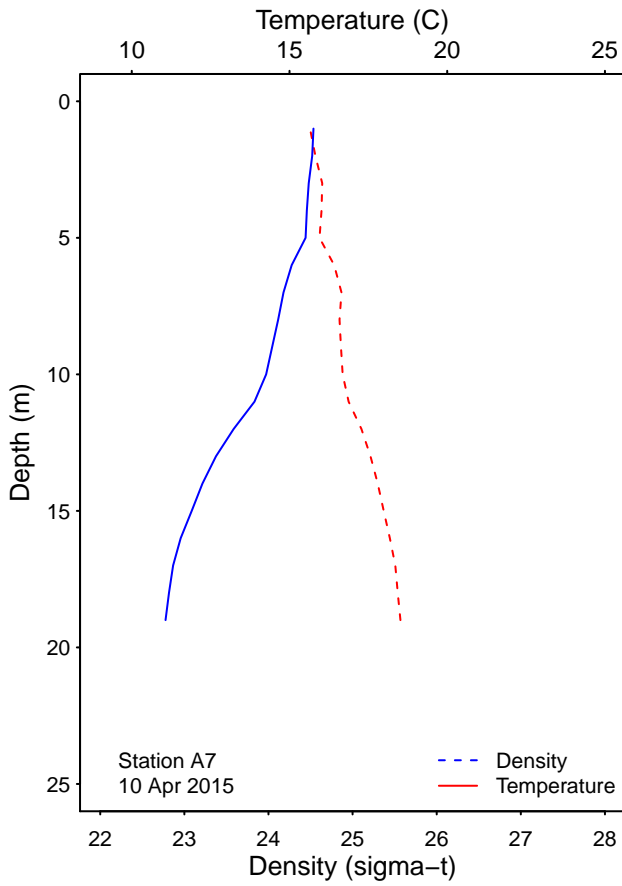


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

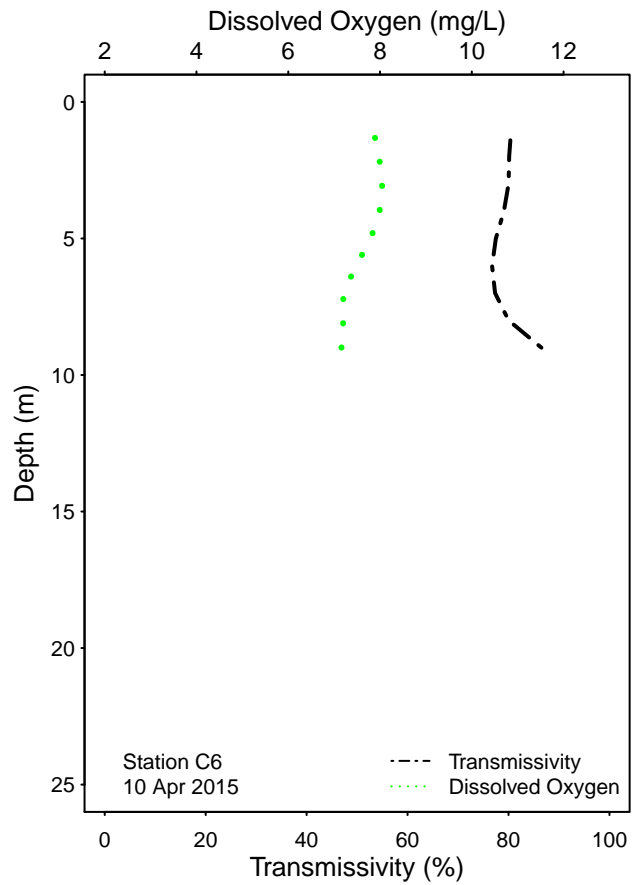
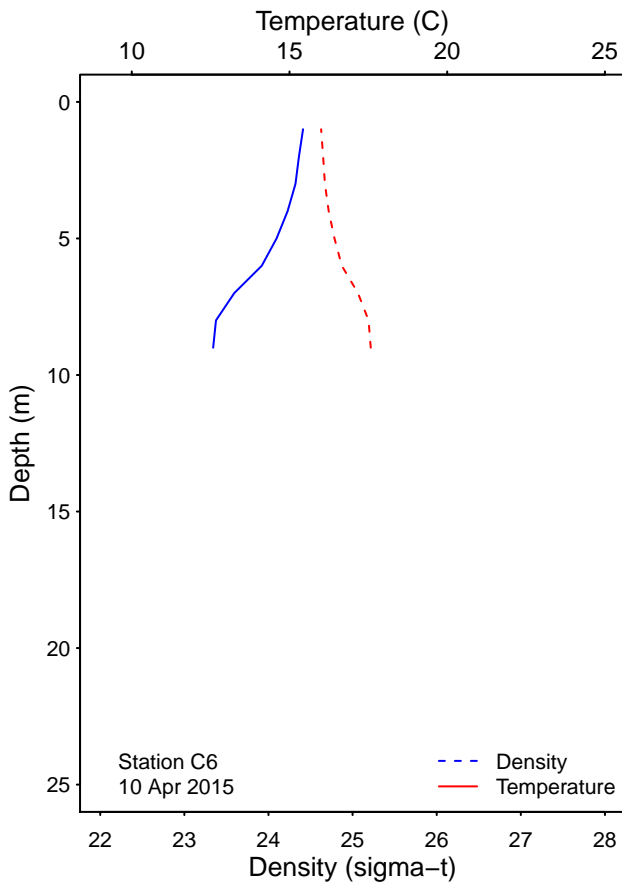
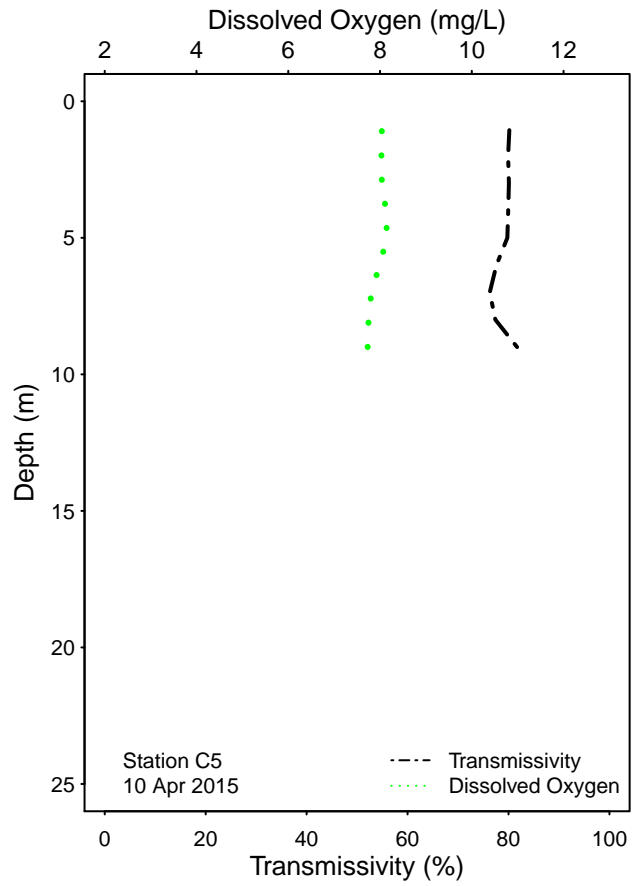
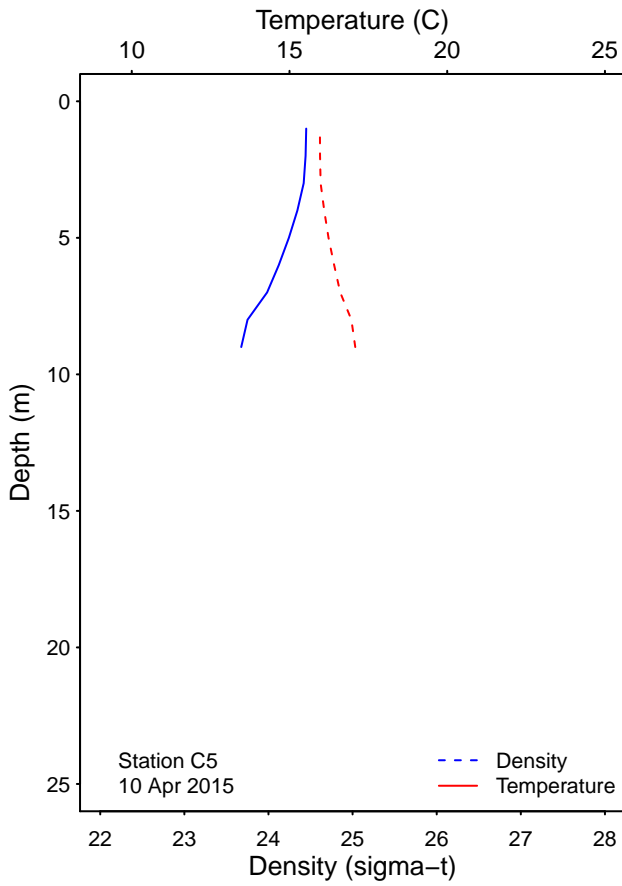


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

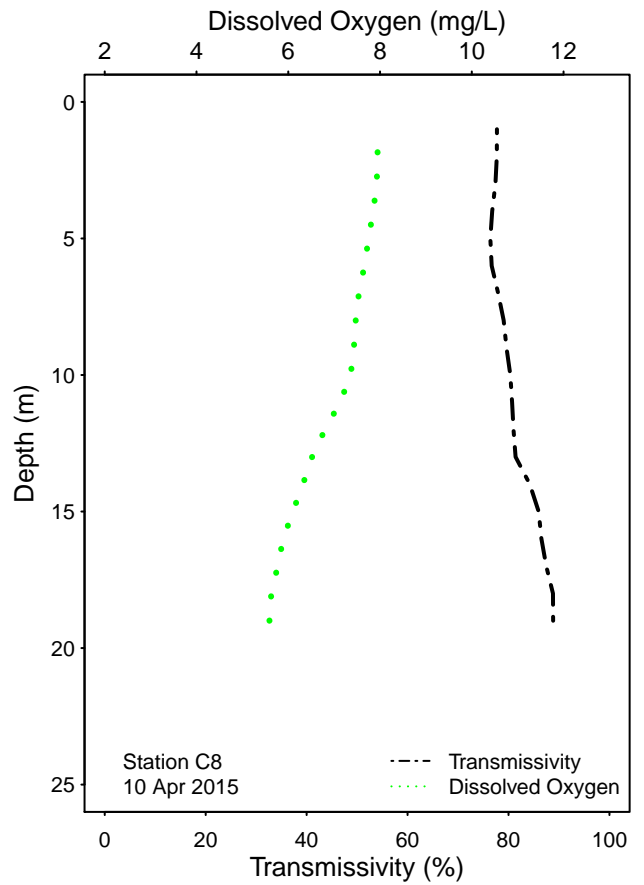
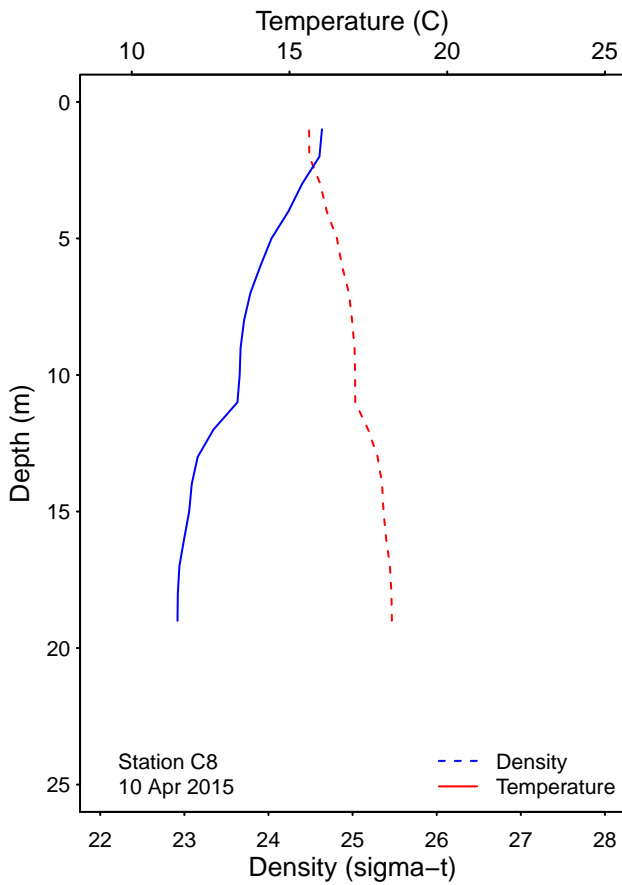
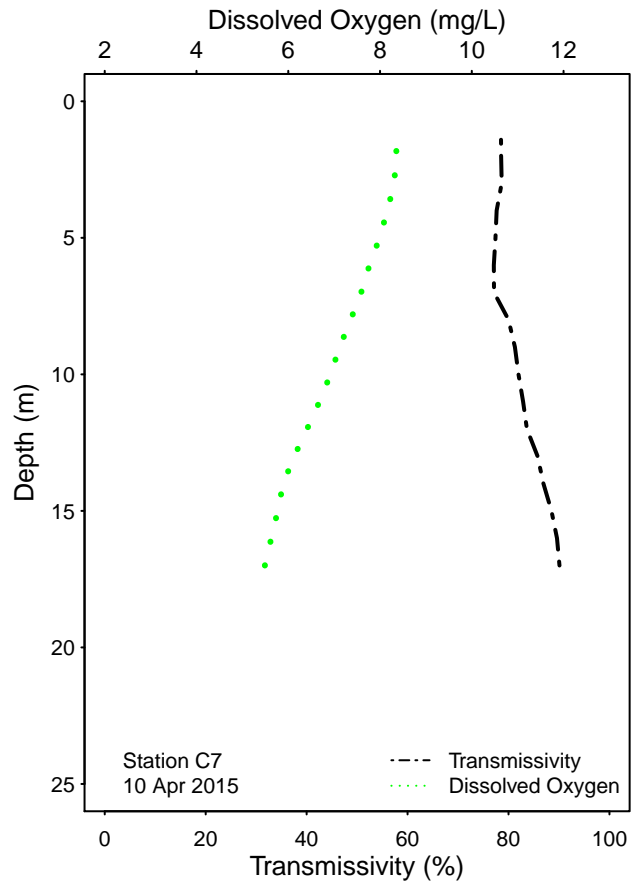
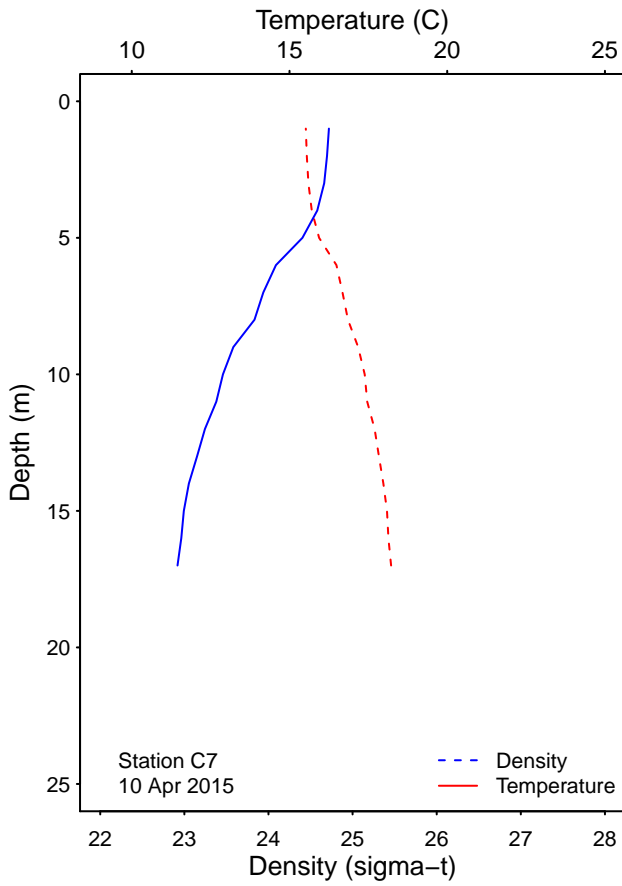


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

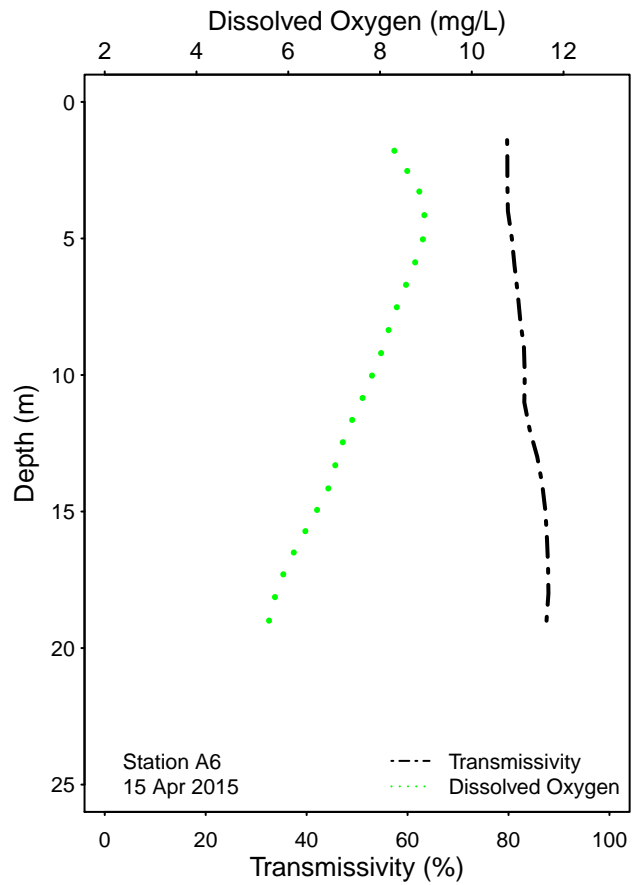
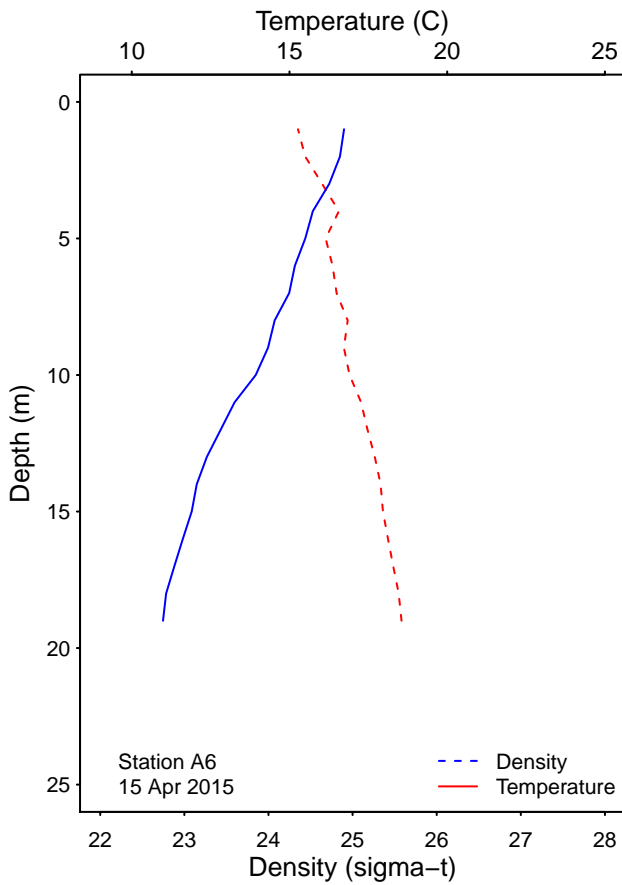
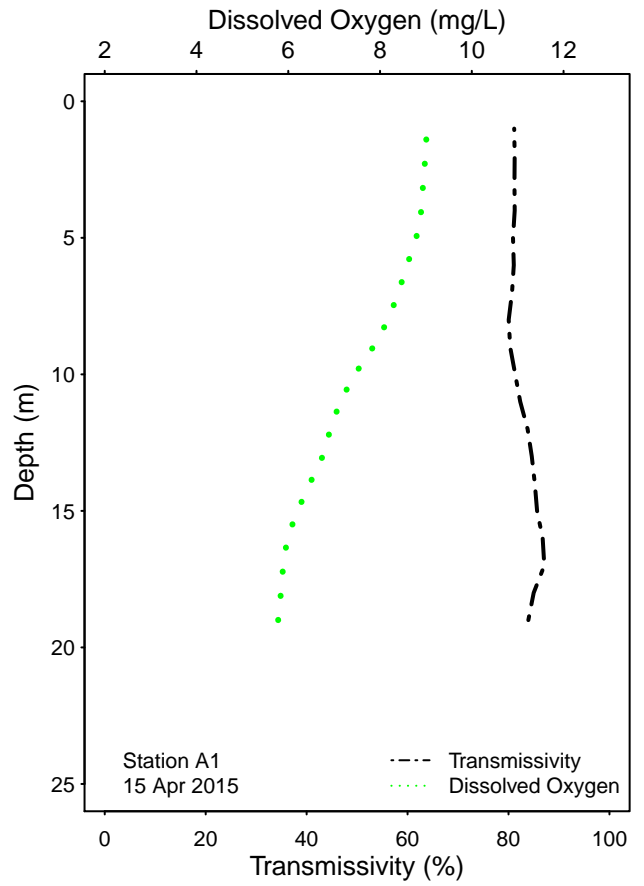
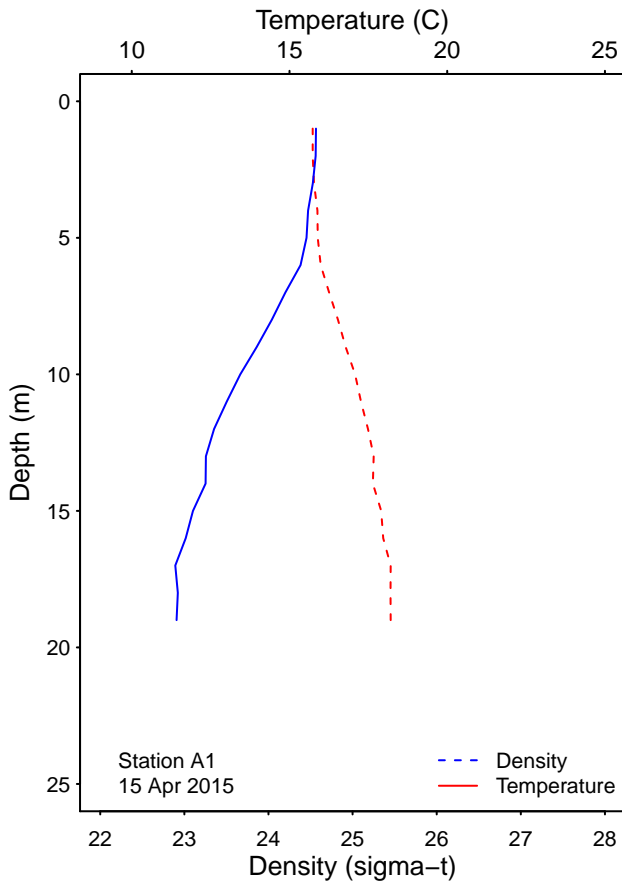


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

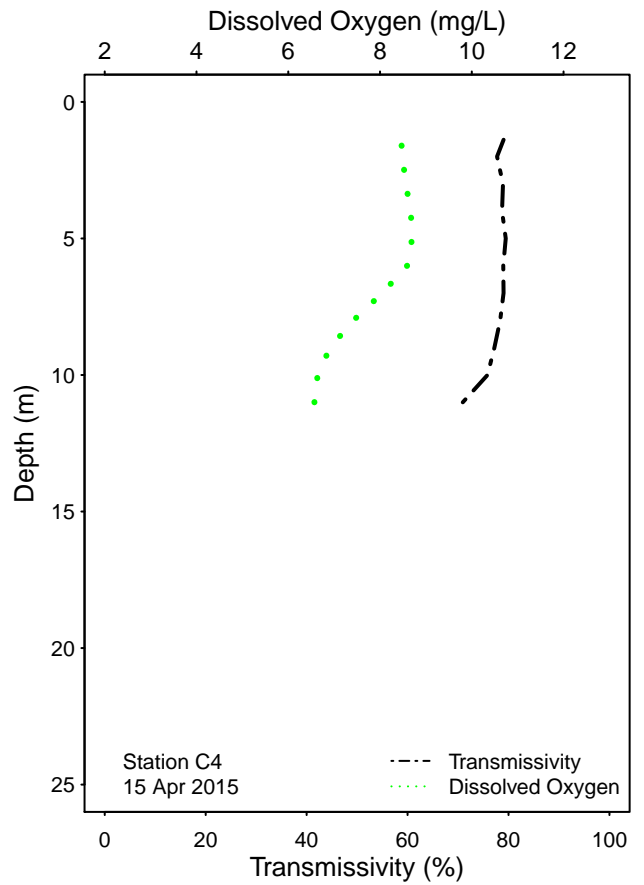
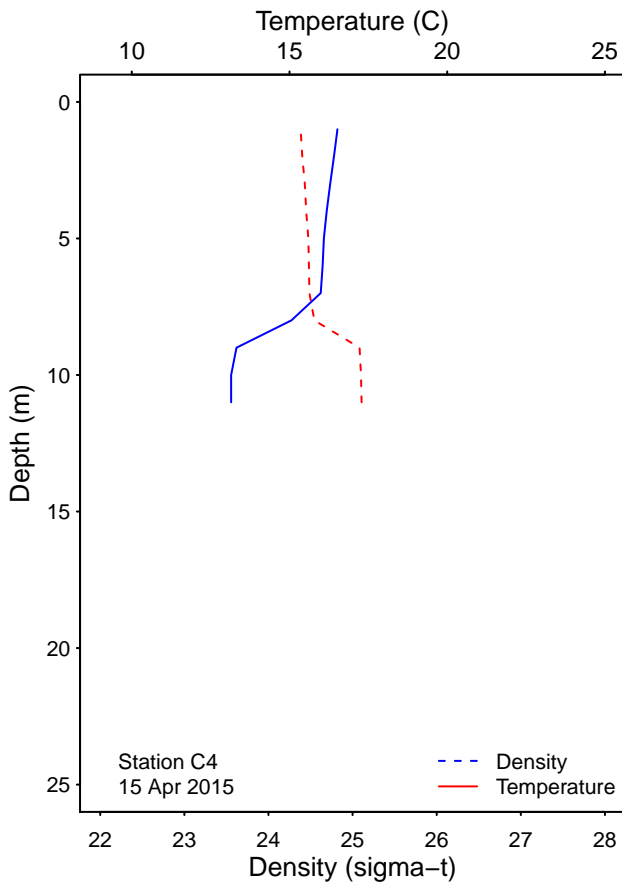
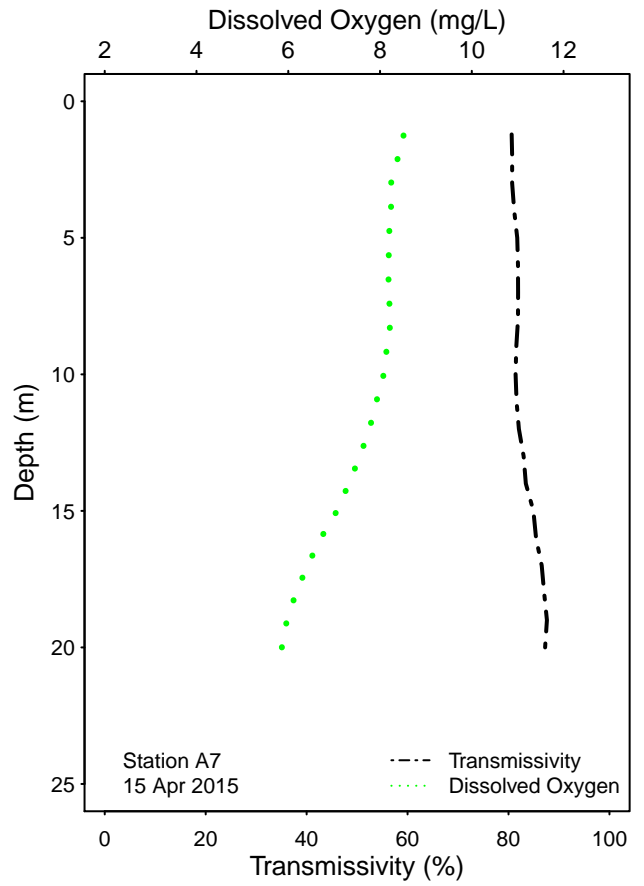
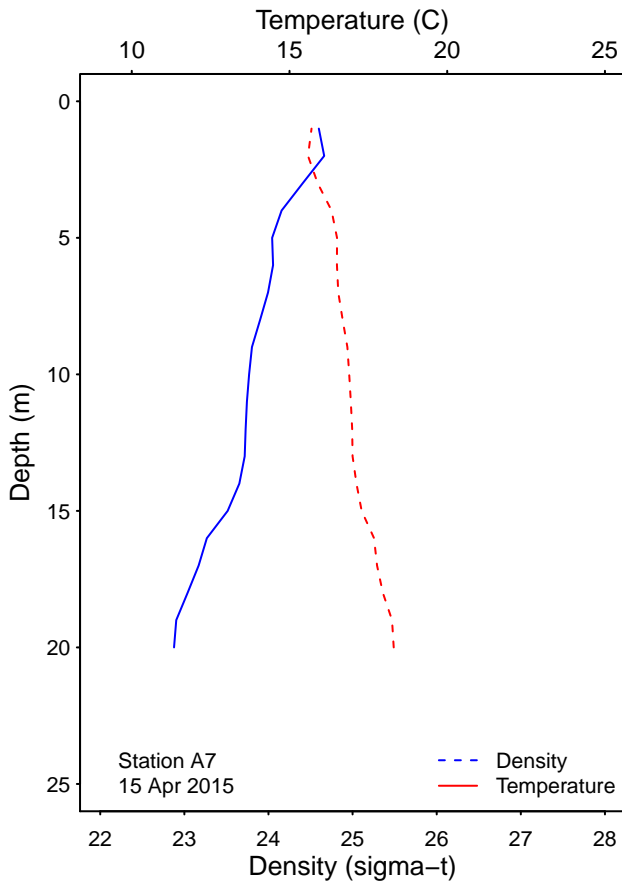


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

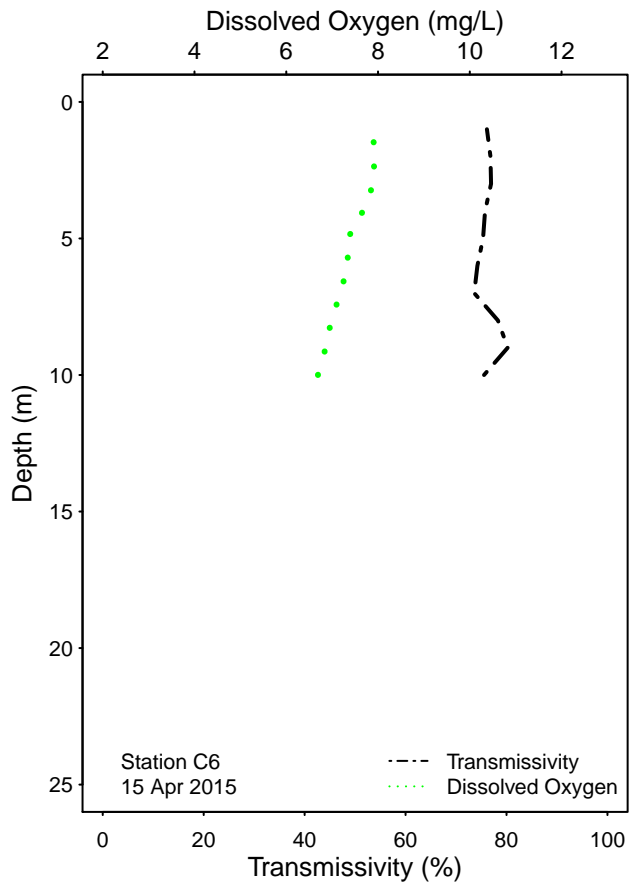
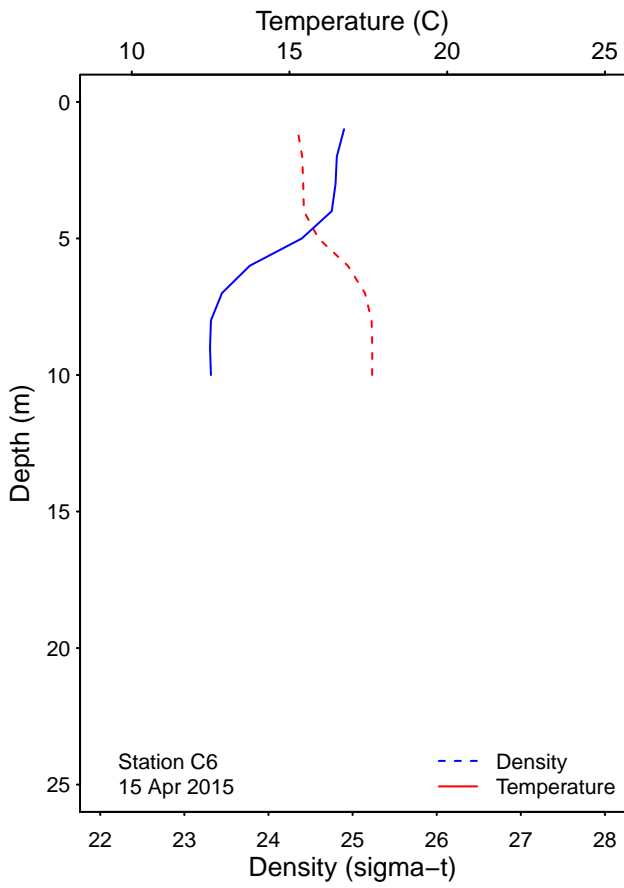
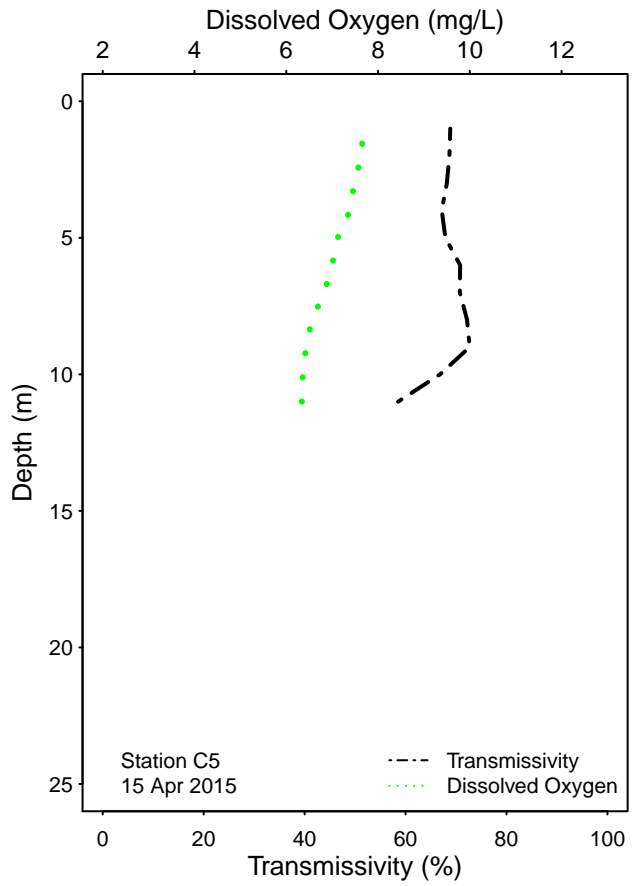
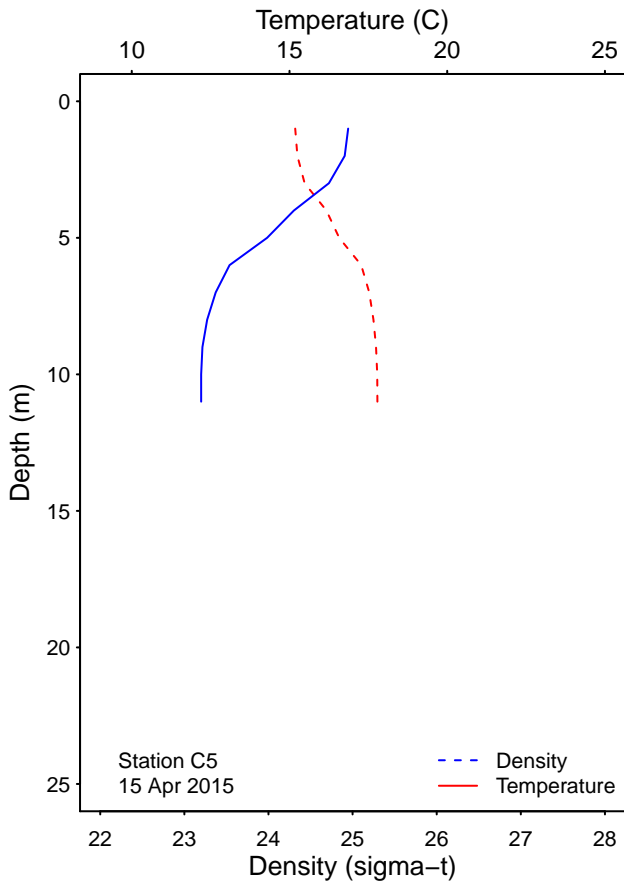


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

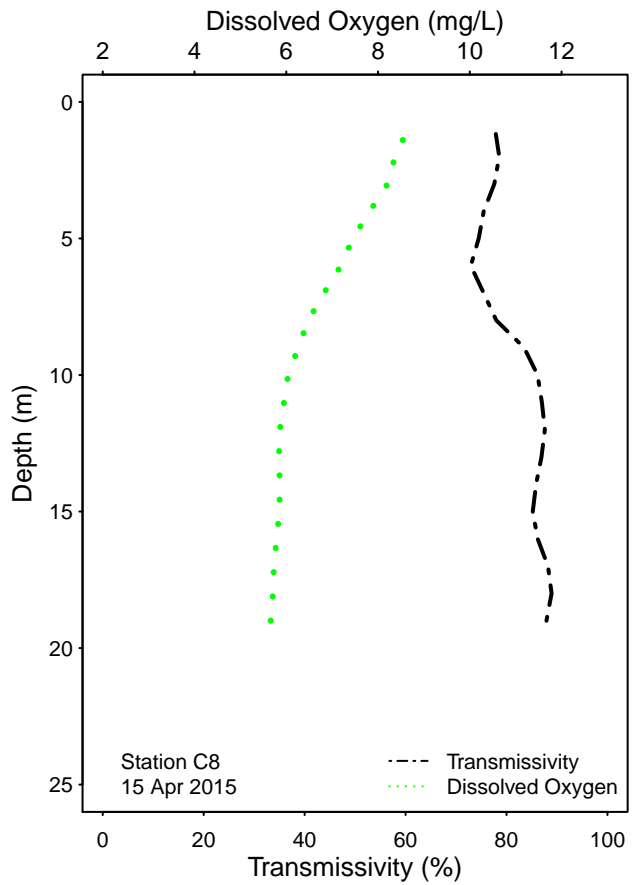
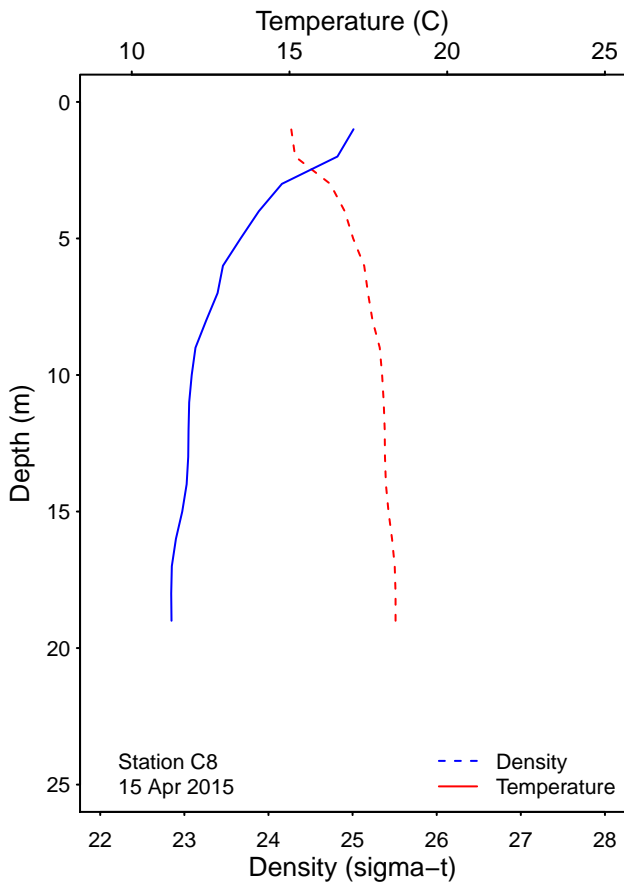
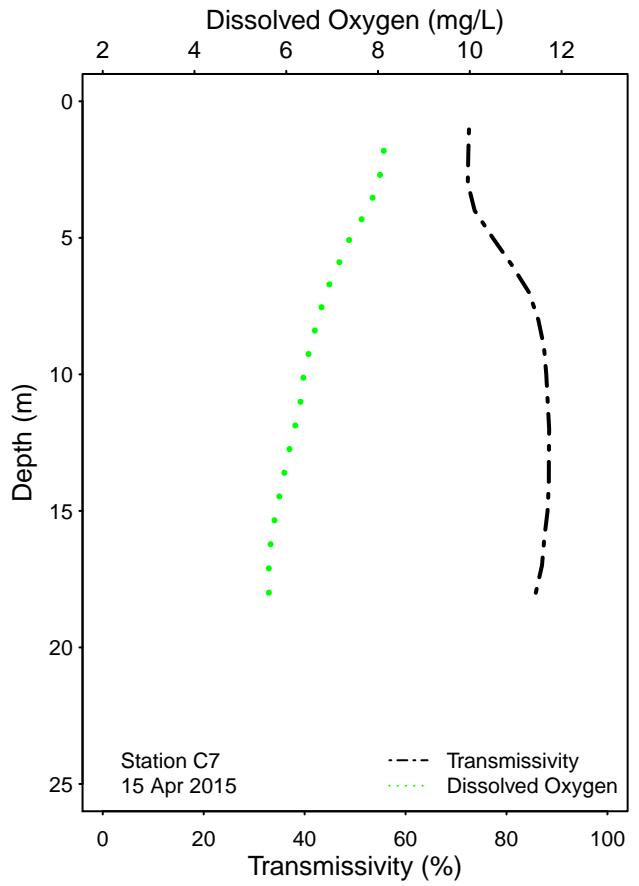
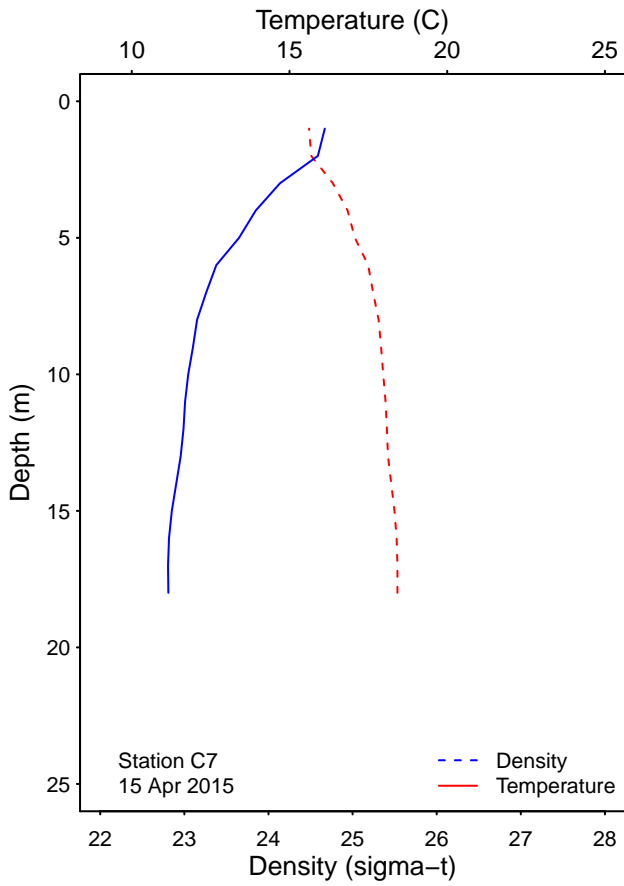


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

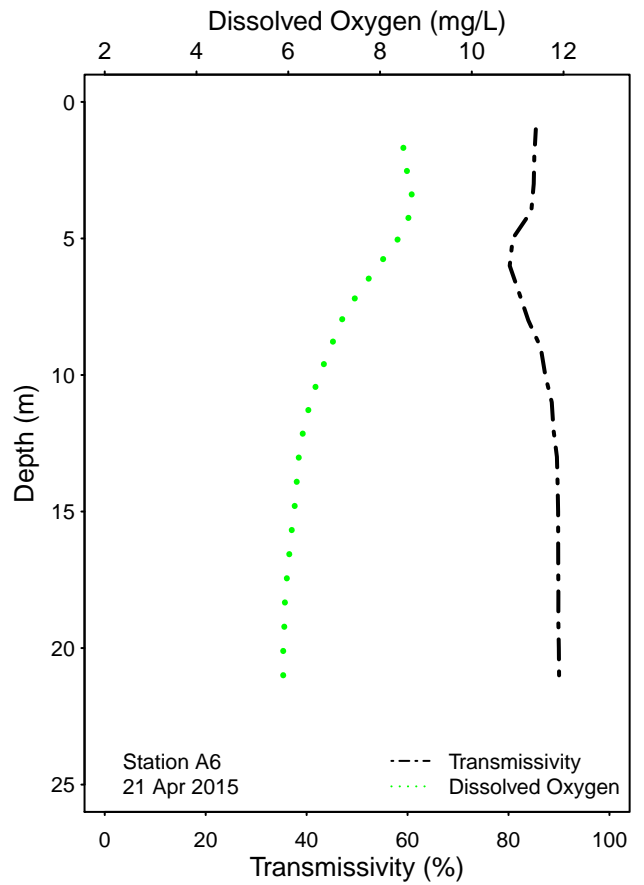
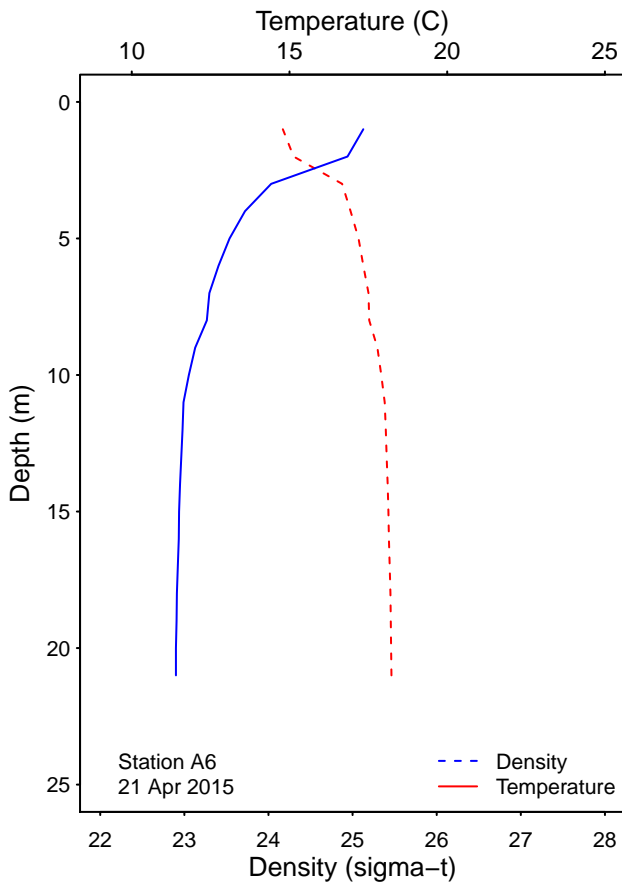
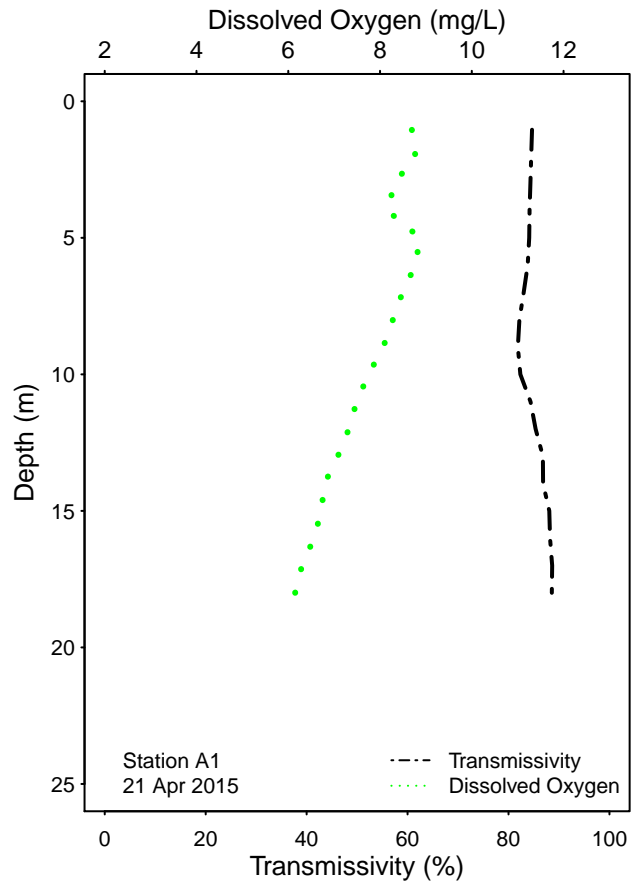
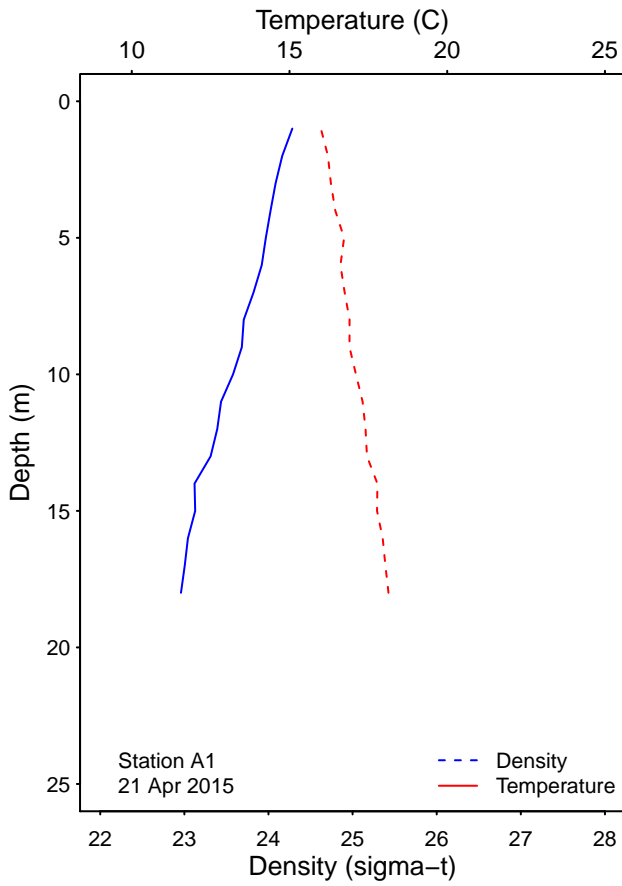


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

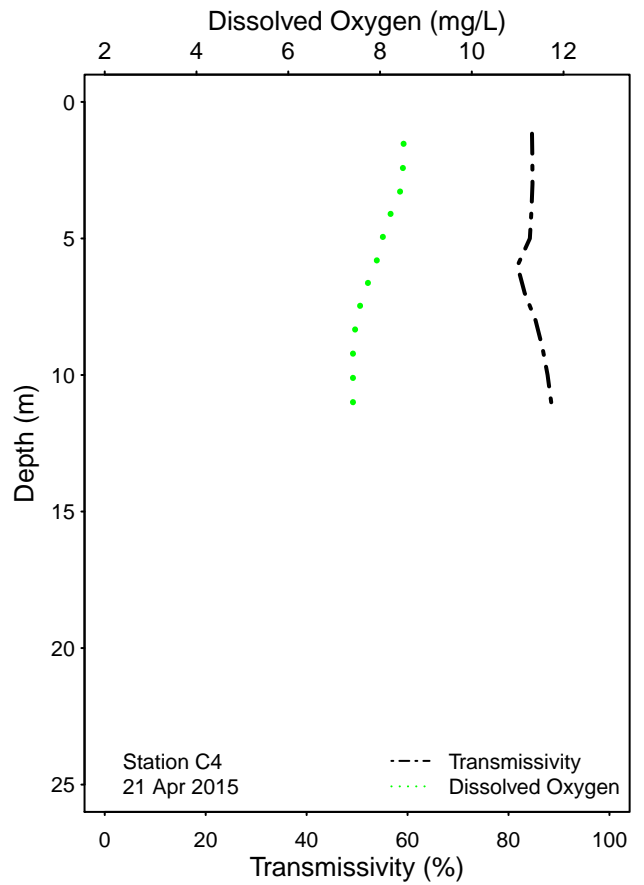
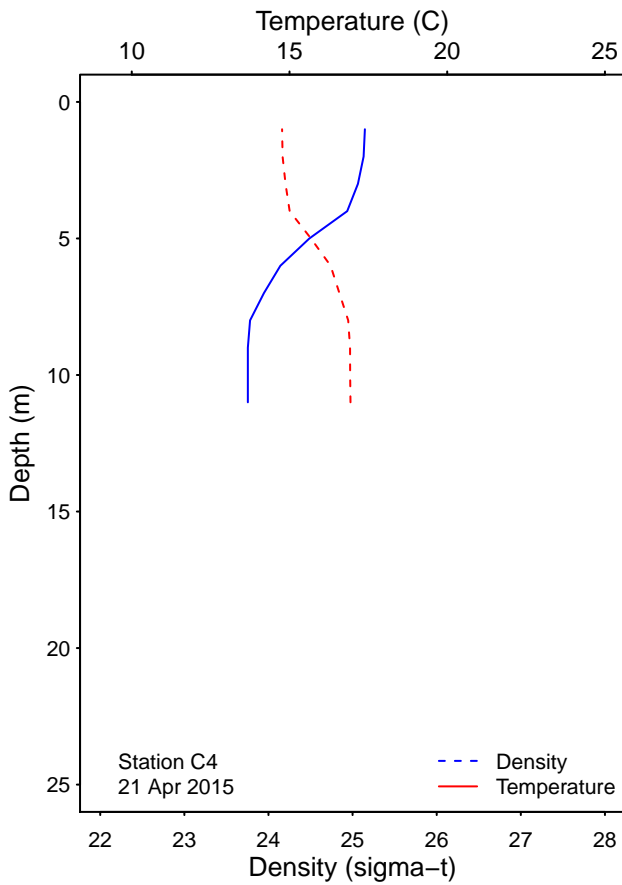
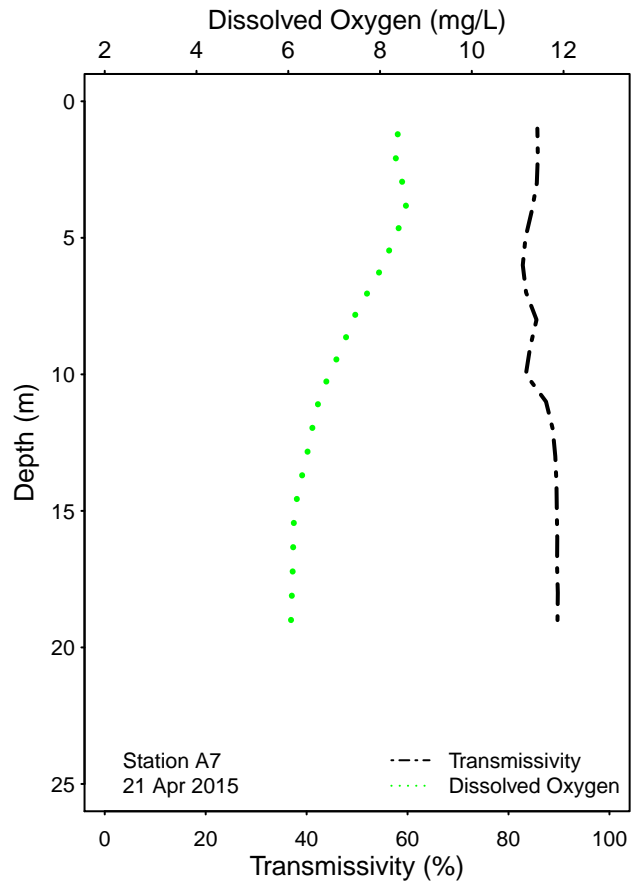
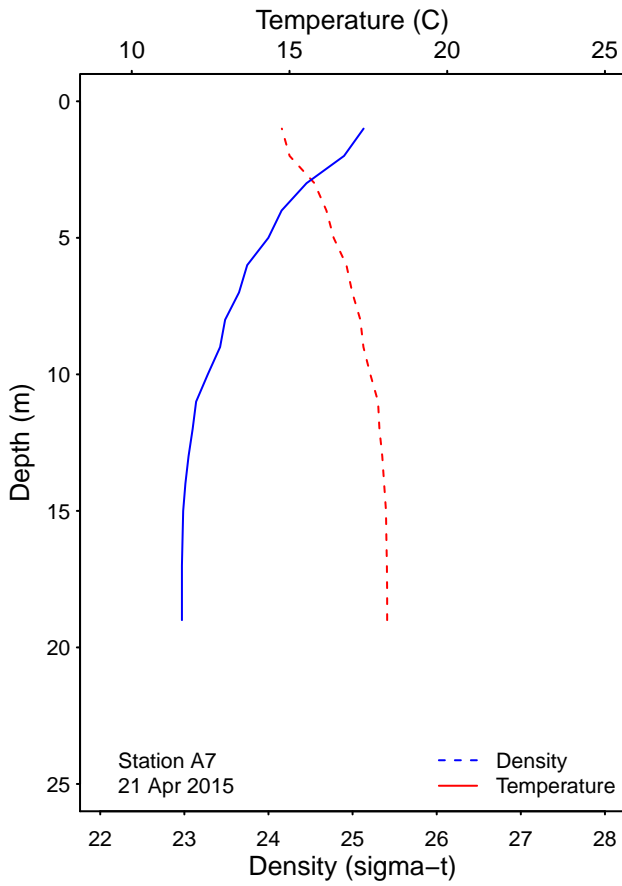


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

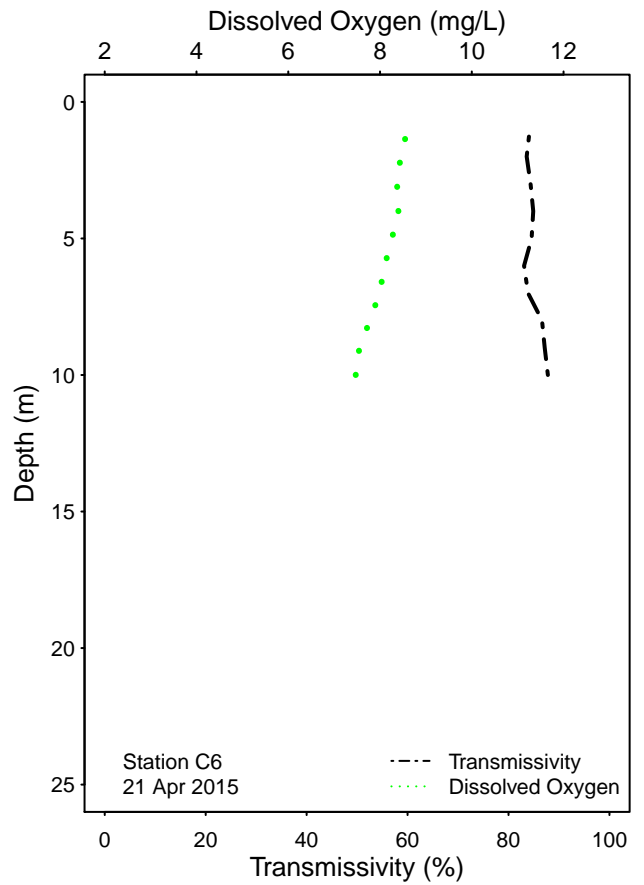
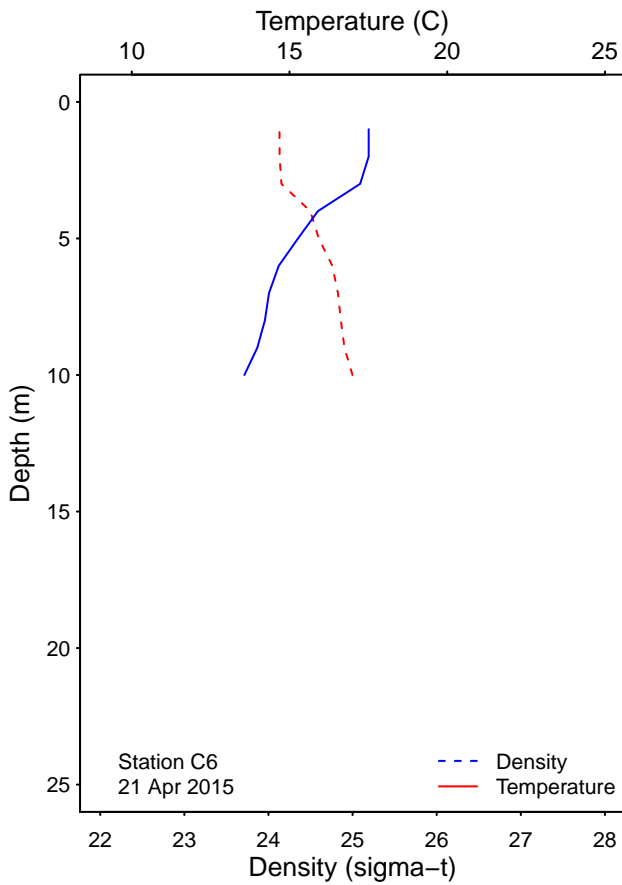
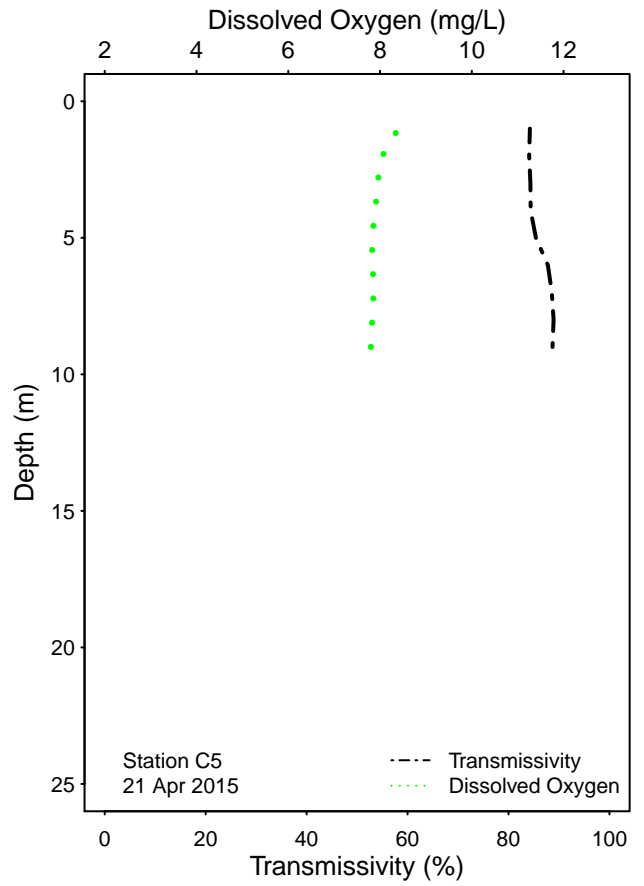
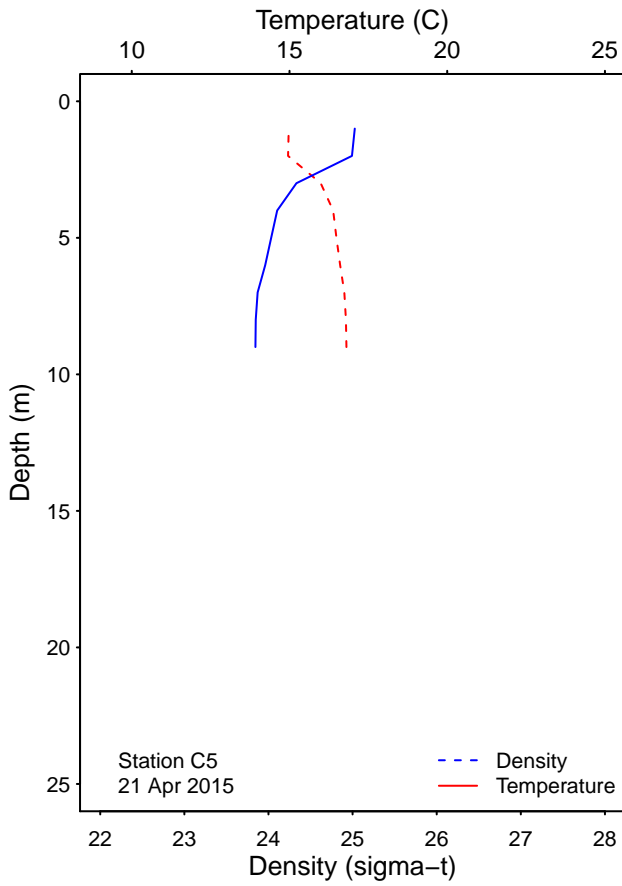


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

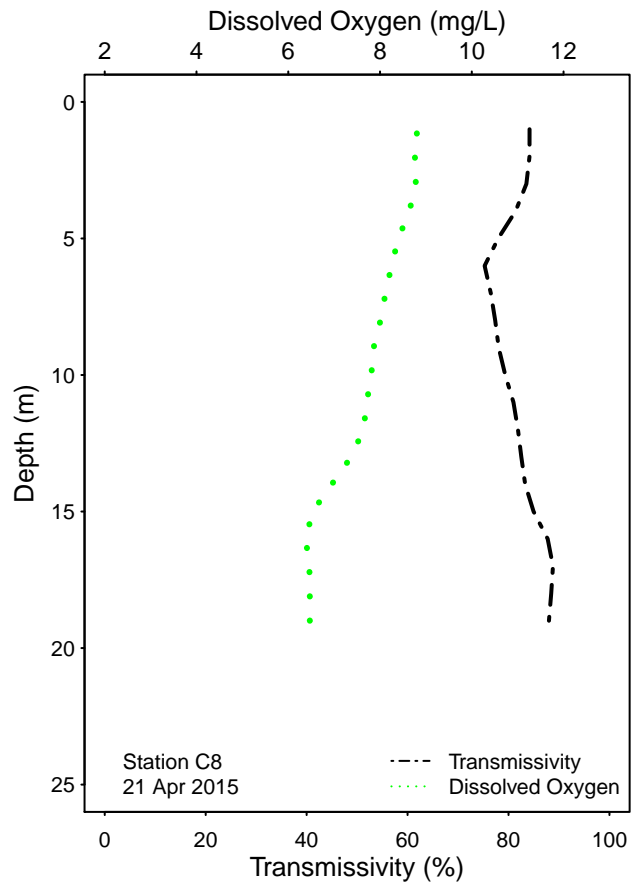
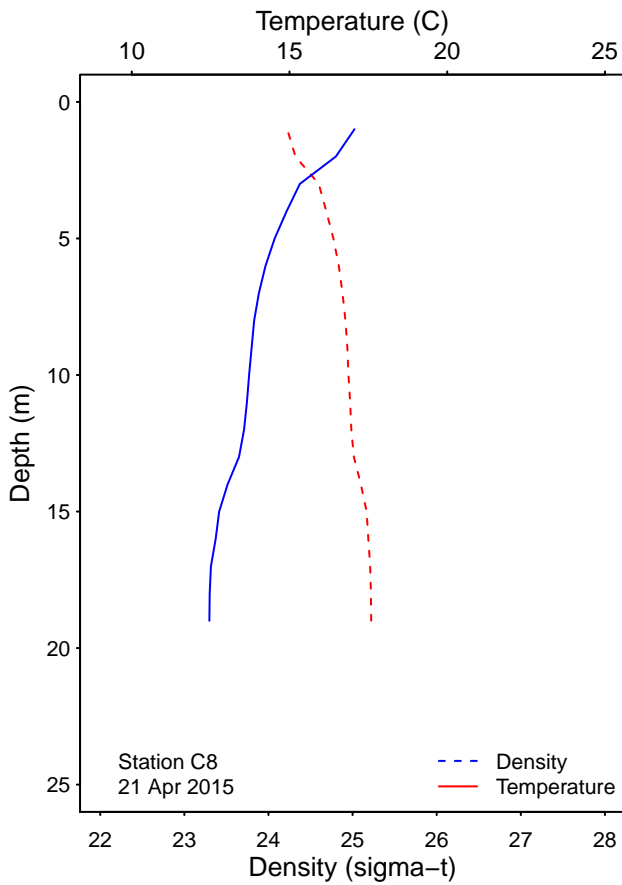
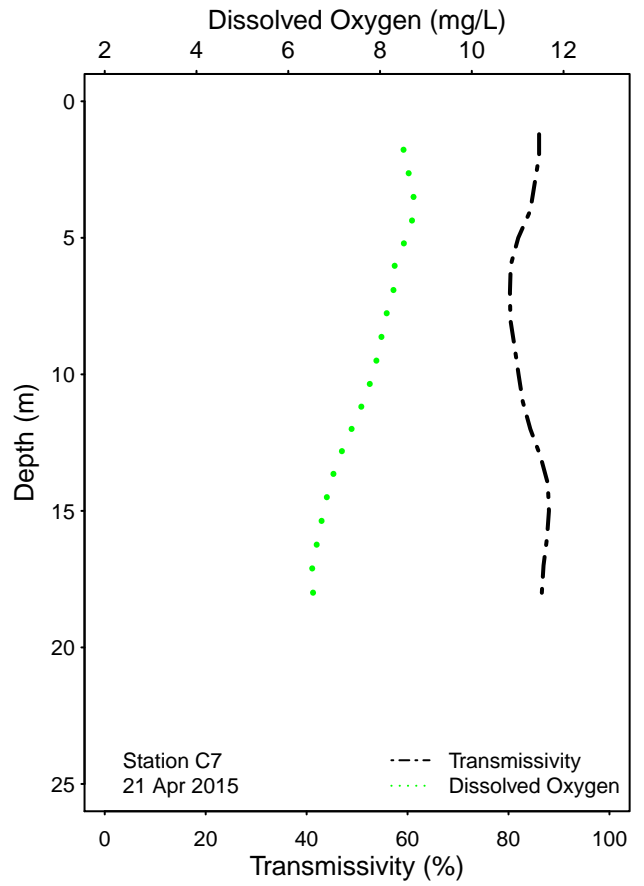
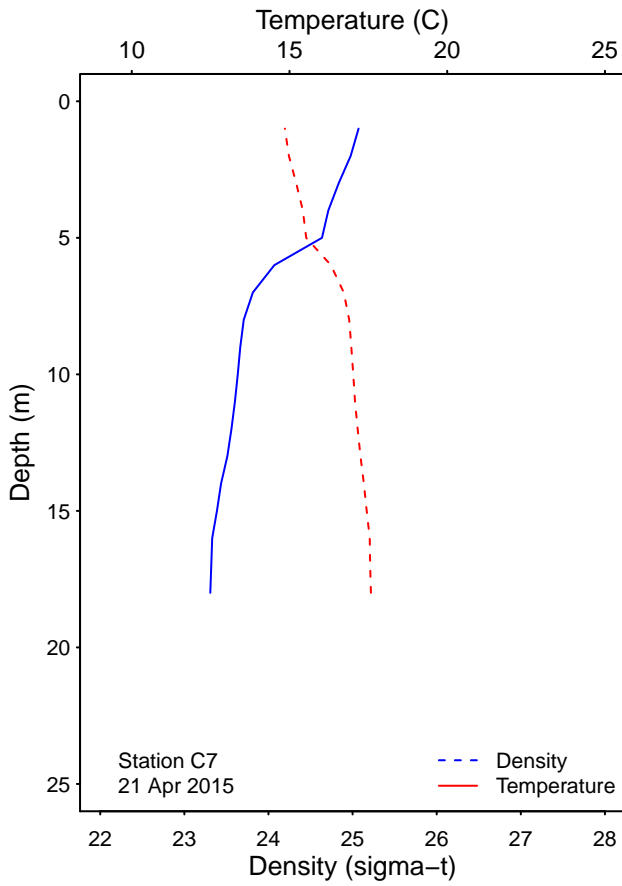


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

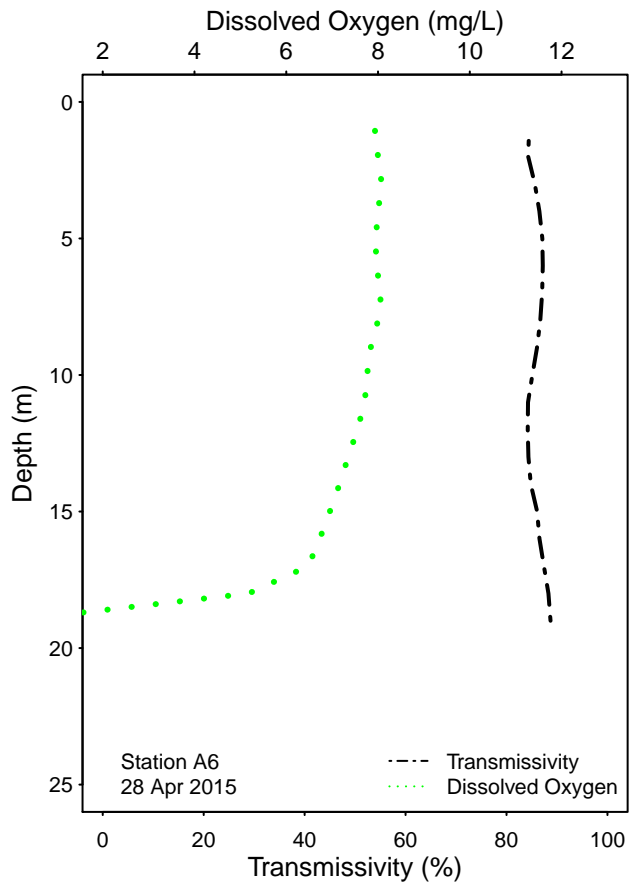
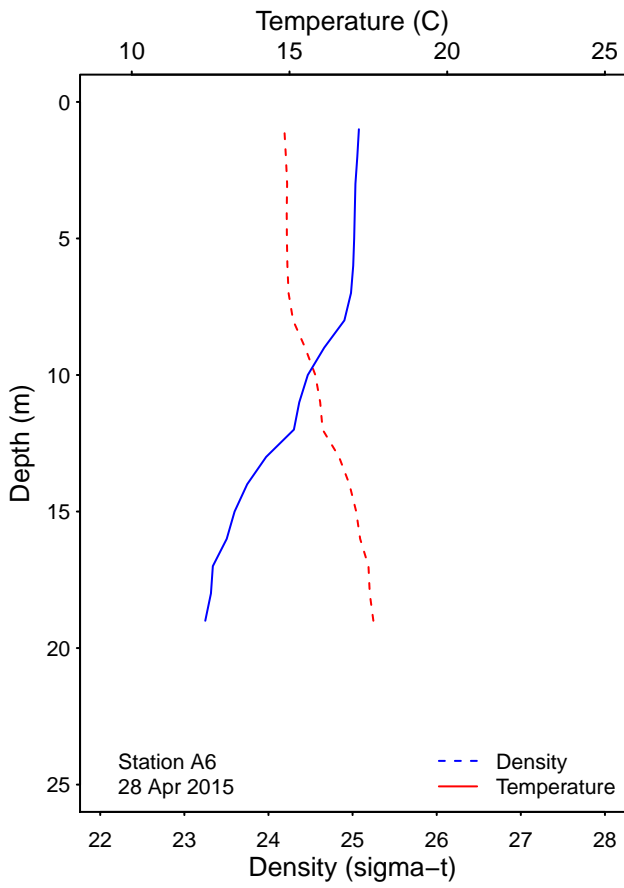
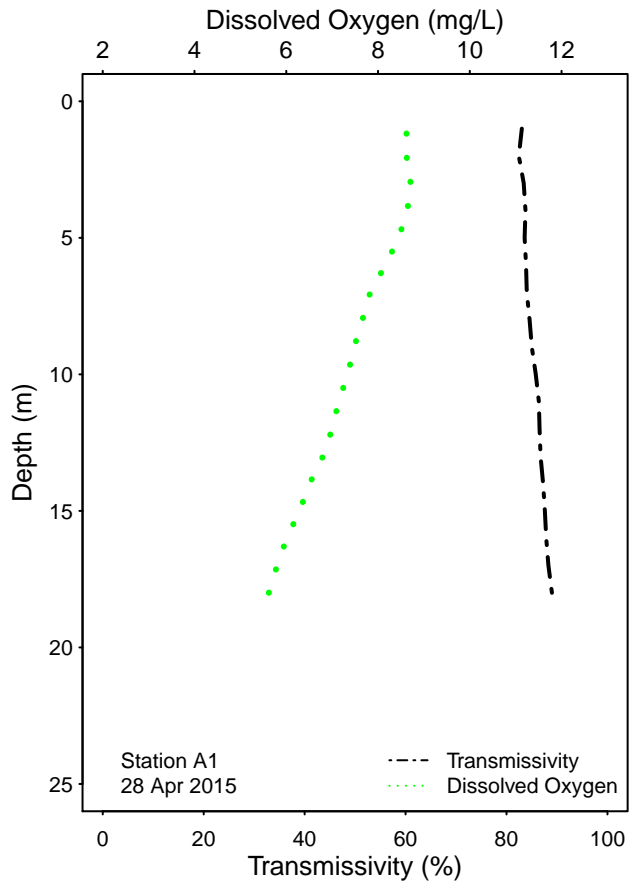
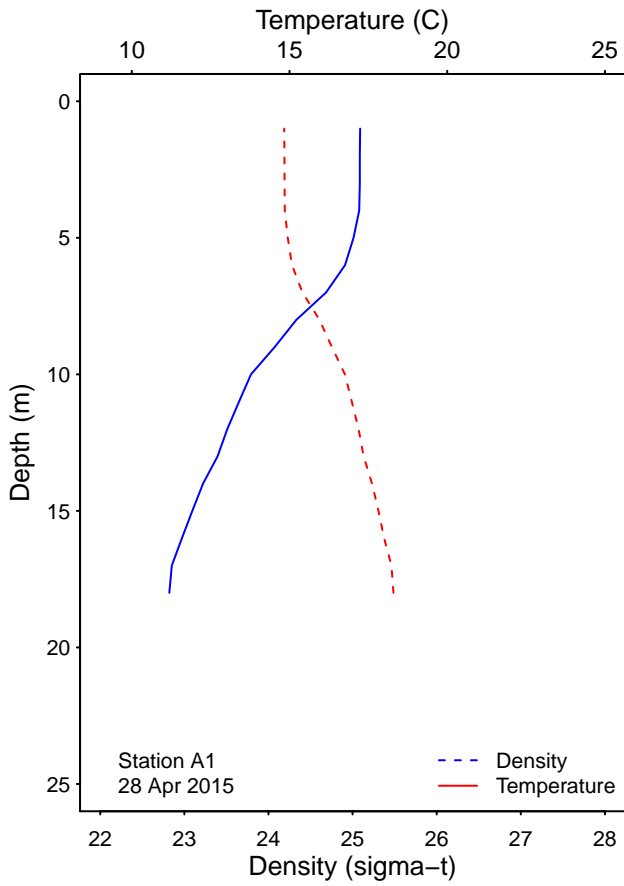


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

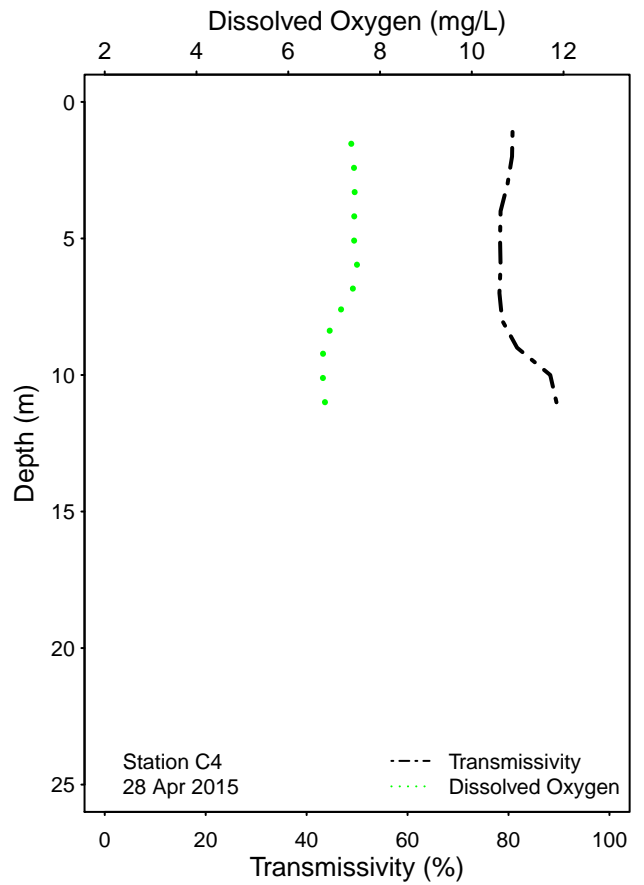
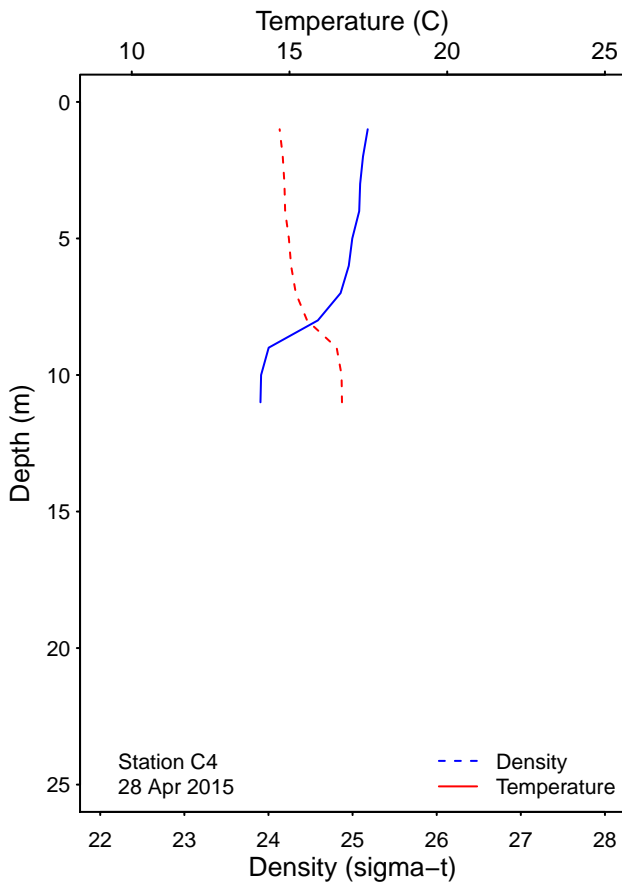
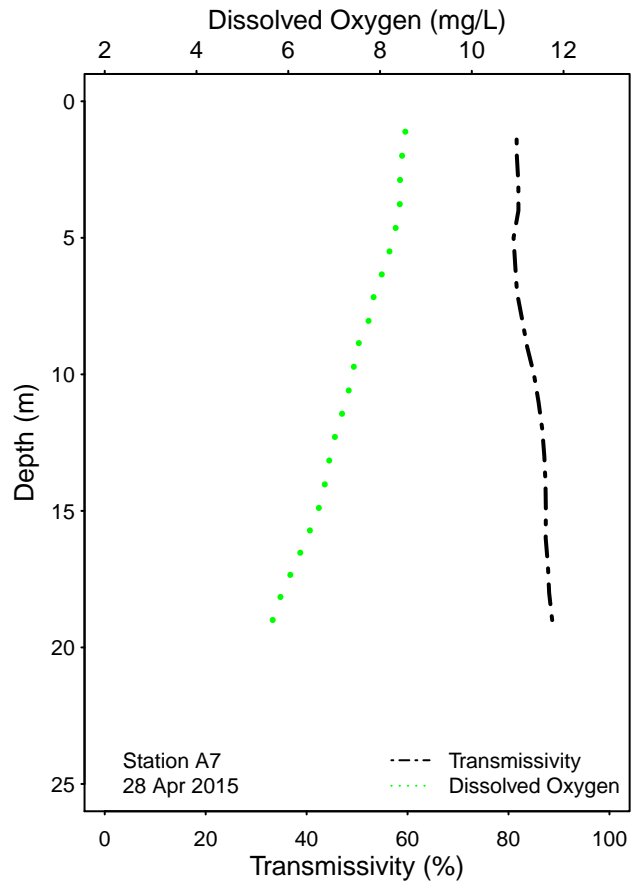
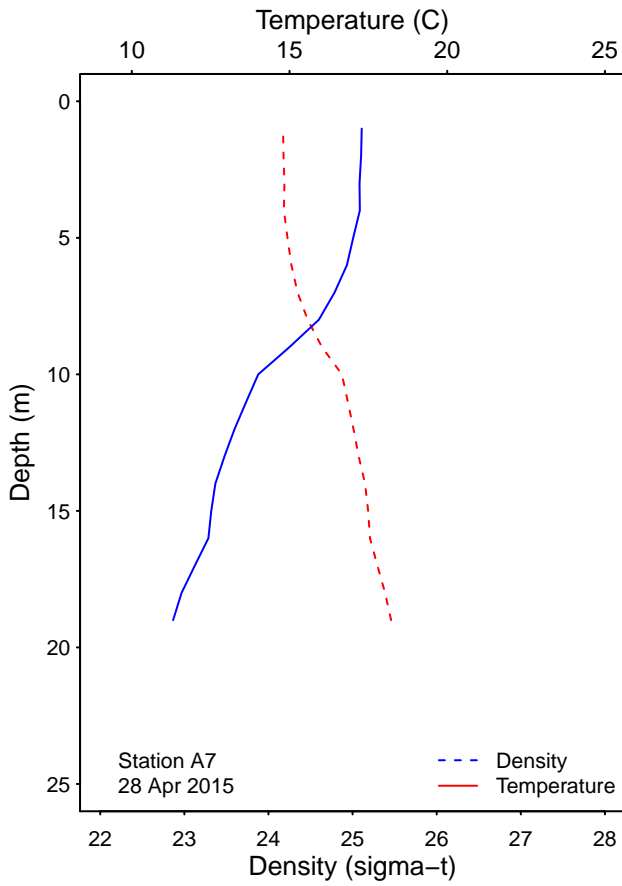


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

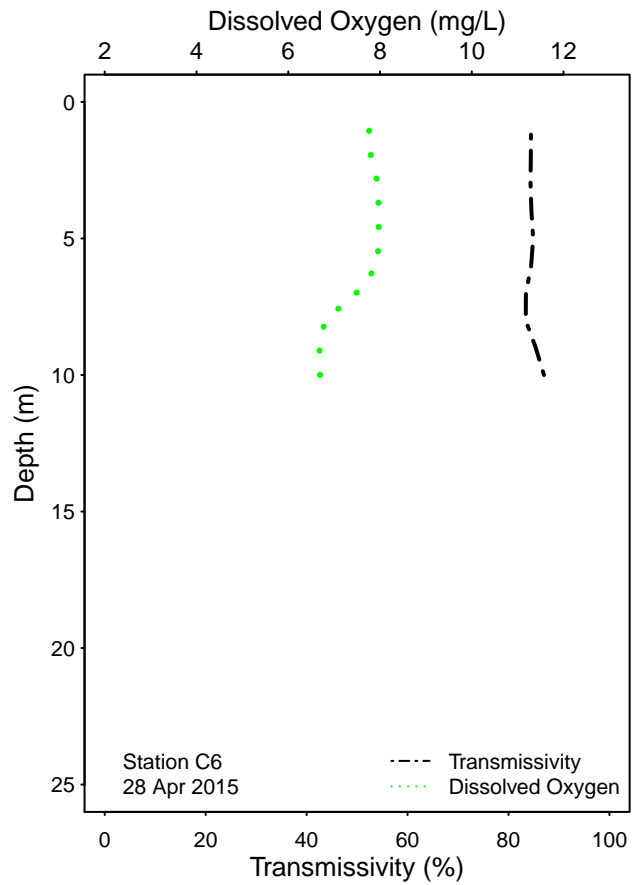
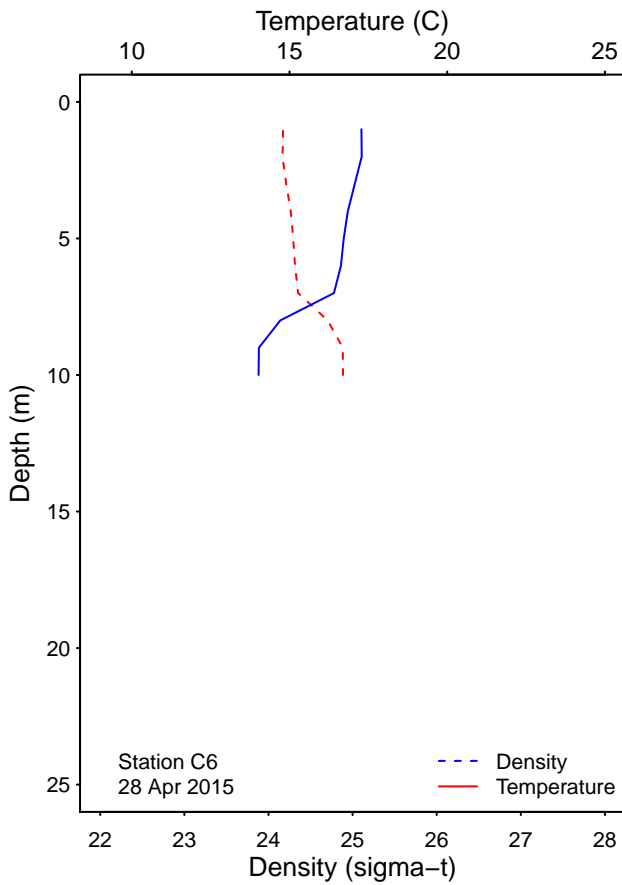
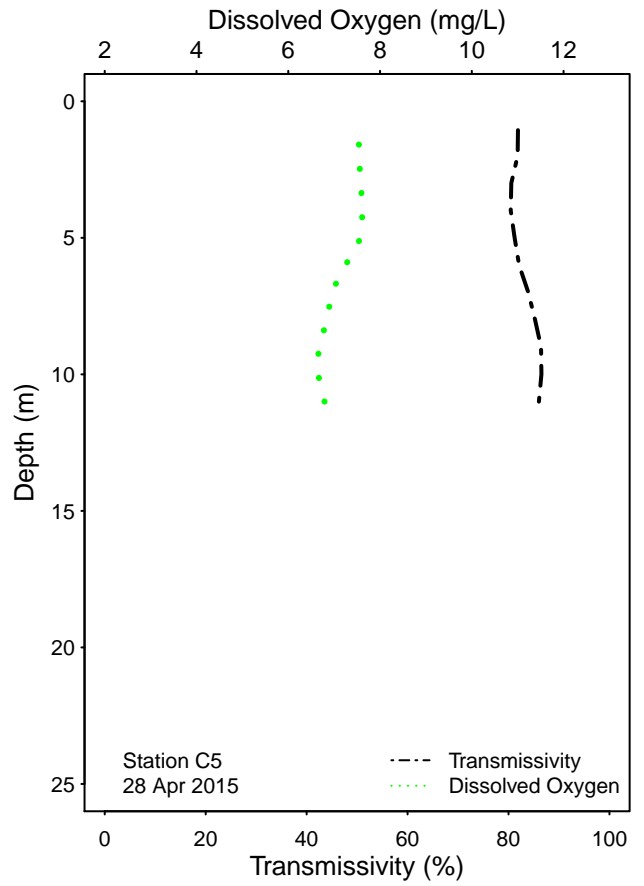
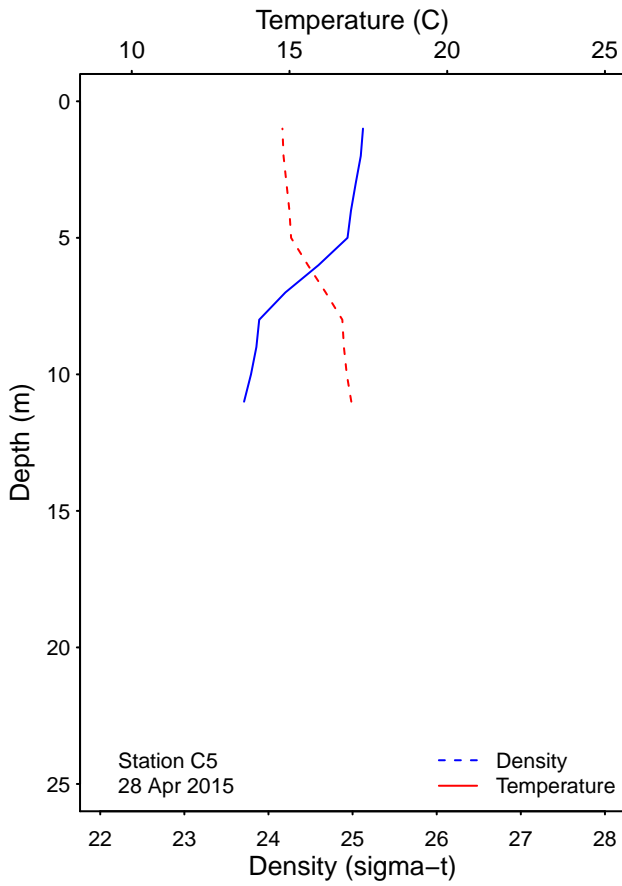


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

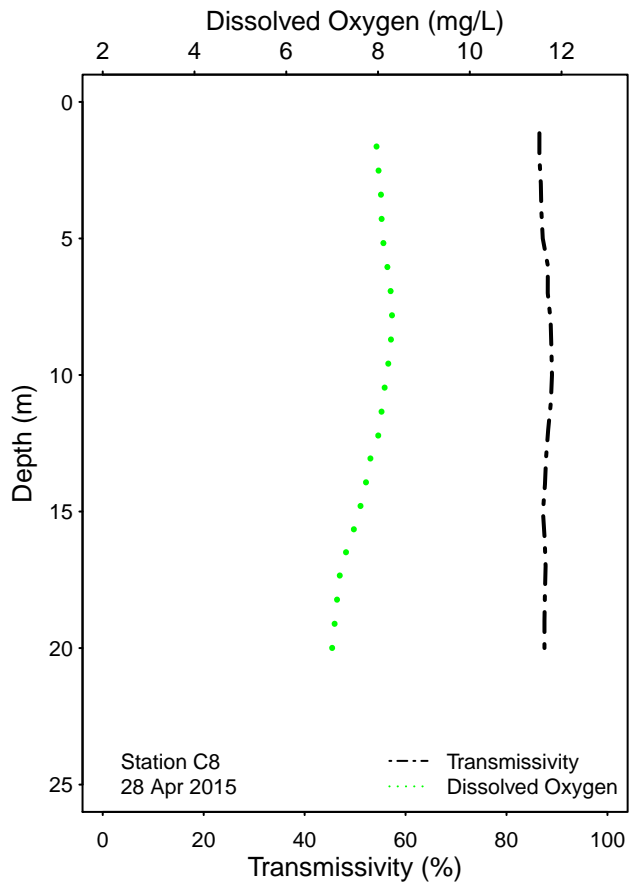
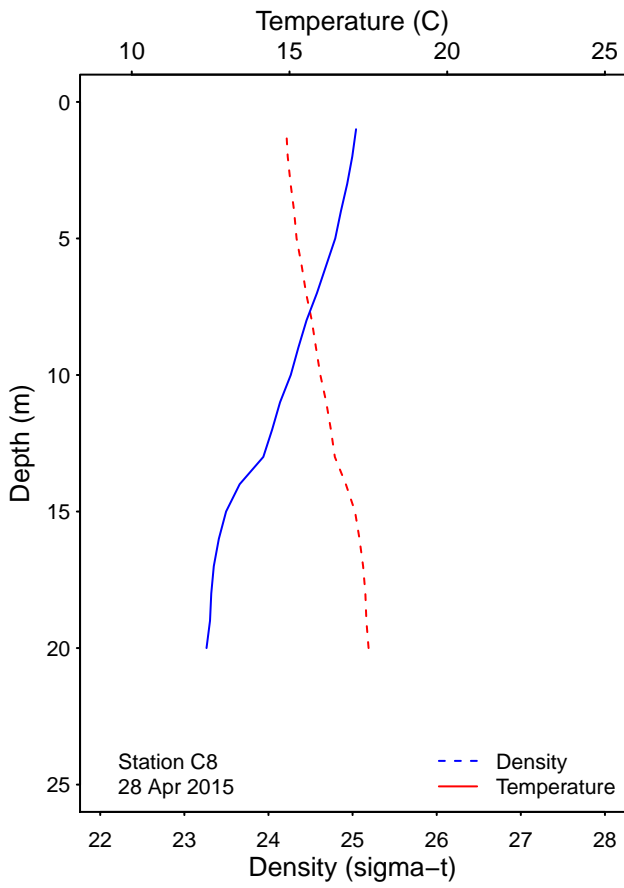
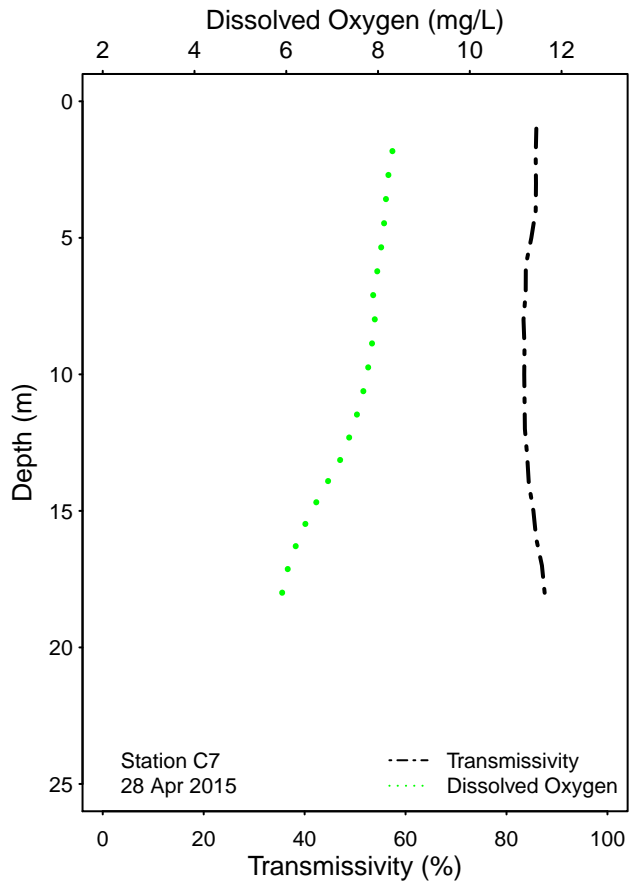
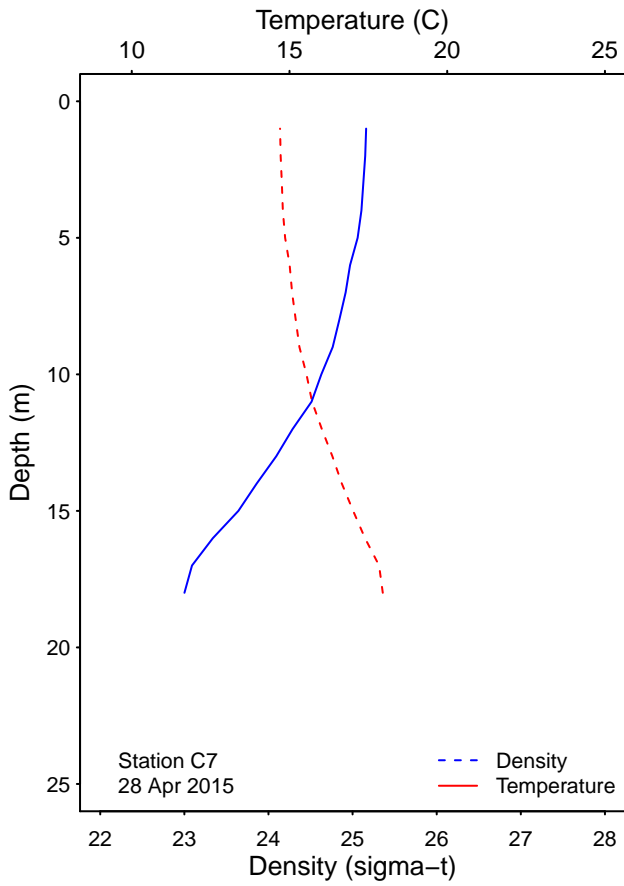


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

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APPENDIX A

Quality Assurance

Table A.1

Summary of bacteriological quality assurance field and laboratory duplicate sample analyses at selected PLOO stations. Densities of total coliform (Total), fecal coliform (Fecal), and *Enterococcus* (Entero) are reported as CFU/100 mL.

Station	Date	Depth	Analyst	Procedure	Total	Fecal	Entero
A7	02 Apr 2015	18	AR	LAB DUPLICATE	ns	ns	<2
A7	02 Apr 2015	18	SR	LAB DUPLICATE	2e	<2	ns
A7	10 Apr 2015	18	LMA	LAB DUPLICATE	6e	<2	<2
A7	15 Apr 2015	18	LMA	LAB DUPLICATE	<2	<2	<2
A7	21 Apr 2015	18	SR	LAB DUPLICATE	<2	<2	<2
A7	28 Apr 2015	18	JT	LAB DUPLICATE	8e	<2	<2
C7	02 Apr 2015	18	AR	LAB DUPLICATE	ns	ns	<2
C7	02 Apr 2015	18	SR	LAB DUPLICATE	<2	<2	ns
C7	10 Apr 2015	18	LMA	LAB DUPLICATE	<2	<2	<2
C7	15 Apr 2015	18	LMA	LAB DUPLICATE	<2	<2	<2
C7	21 Apr 2015	18	SR	LAB DUPLICATE	20e	<2	<2
C7	28 Apr 2015	18	JT	LAB DUPLICATE	4e	2e	2e
C8	02 Apr 2015	12	AR	LAB DUPLICATE	ns	ns	<2
C8	02 Apr 2015	12	SR	LAB DUPLICATE	2e	<2	ns
C8	10 Apr 2015	12	LMA	LAB DUPLICATE	<2	<2	<2
C8	15 Apr 2015	12	LMA	LAB DUPLICATE	2e	<2	<2
C8	21 Apr 2015	12	SR	LAB DUPLICATE	<2	<2	<2
C8	28 Apr 2015	12	JT	LAB DUPLICATE	<2	<2	<2
D8	05 Apr 2015		AR	FIELD DUPLICATE	20e	<2	<2
D8	05 Apr 2015		AR	LAB DUPLICATE	<20	6e	<2
D8	11 Apr 2015		ZV	FIELD DUPLICATE	<20	<2	<2
D8	11 Apr 2015		ZV	LAB DUPLICATE	<20	<2	2e
D8	17 Apr 2015		AR	FIELD DUPLICATE	200e	6e	94
D8	17 Apr 2015		AR	LAB DUPLICATE	<200	40e	76
D8	23 Apr 2015		ZV	FIELD DUPLICATE	<20	<2	<2
D8	23 Apr 2015		ZV	LAB DUPLICATE	<20	2e	<2
D8	29 Apr 2015		LMA	FIELD DUPLICATE	<200	2e	<2
D8	29 Apr 2015		LMA	LAB DUPLICATE	<200	2e	<2

ns = not sampled

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