



POINT LOMA OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT

POINT LOMA WASTEWATER TREATMENT PLANT

NPDES Permit No. CA0107409
SDRWQCB Order No. R9-2017-0007

APRIL 2024

Environmental Monitoring and Technical Services
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Public Utilities Department
Environmental Monitoring & Technical Services Division

May 31, 2024

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 2024 Monthly Receiving Waters Monitoring Report for the Point Loma Ocean Outfall, Point Loma Wastewater Treatment Plant as required per Order No. R9-2017-0007, 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,

A handwritten signature in blue ink that reads "Peter S. Vroom".

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

PV/rk

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

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. R9-2017-0007, 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 required to be monitored at eight shoreline stations, including D4, D5, D7, D8, D9, D10, D11 and D12, which range from the tip of the Point Loma Peninsula to west of Mission Bay (see station locations map). Over the past several years, due to increasing instability in several cliffside areas of Point Loma, City staff have been unable to safely access and sample several stations at various times. This has resulted in the following modifications:

- Station D8 was replaced by alternate station D8-A during July 2016, which was subsequently replaced by station D8-B in March 2018, after which sampling at station D8-A resumed in December 2020. Due to recent access issues at D8-A, sampling resumed at D8-B during February 2021.

Seawater samples are collected from the surf zone at each station on a weekly basis. These samples are subsequently transported to the City's Marine Microbiology Laboratory and analyzed for the presence of several types of fecal indicator bacteria (FIB), 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 weekly according to permit specifications 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 fecal indicator bacteria (i.e., total coliforms, fecal coliforms, and *Enterococcus*). 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.

Seawater samples at the kelp bed stations are collected using a CTD-integrated rosette sampler with Niskin bottles. Aliquots for bacteriological analyses are drawn from these bottles into sterile sample bottles for processing at the City's Marine Microbiology Laboratory. 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 ≥ 4 scans per second. These scans are then internally averaged to create water column profiles with data readings at a rate of one per meter. Additionally, CTD profile data for each water sample depth are presented with the bacteriological data.

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), and 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 California Ocean Plan's 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.

Seawater samples for bacteriological analyses at the offshore stations are 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. Additionally, data for depths closest to those at which bacteriological samples were 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 California Ocean Plan. The seven standards are defined as follows:

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 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.

- (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 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, 1987²) 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 2024 Quality Assurance Report, which will be completed in March 2025.

SUMMARY OF RESULTS

As of October 2020, new 2019 Ocean Plan Water Quality Objectives are included for *Enterococcus* and total coliforms, see Appendix B.

Shore Stations

- The eight shore stations (D4, D5, D7, D8-B, D9, D10, D11, D12) were sampled on April 3, 10, 17, and 24.
- During the April reporting period, each of the eight shore stations was in compliance with the various 2015 California Ocean Plan (Ocean Plan) water contact standards.
- Nothing of sewage origin was observed at PLOO shore stations in April.
- Over the years, elevated bacteria levels at shore and kelp bed stations have tended to be associated with rainfall events, heavy recreational use, or the presence of seabirds or decaying kelp and surf grass. See the City of San Diego's most recent Biennial Receiving Waters *Monitoring and Assessment Report for the Point Loma and South Bay Ocean Outfalls* for details (<https://www.sandiego.gov/public-utilities/sustainability/ocean-monitoring/reports>).

Kelp Bed Stations

- The eight kelp bed water quality stations (A1, A6, A7, C4, C5, C6, C7, C8) were sampled on April 2, 9, 16, and 23.
- During the April reporting period, each of the eight kelp stations was in compliance with the various 2015 California Ocean Plan (Ocean Plan) water contact standards.
- Water column temperatures ranged from 10.91 to 16.17°C. The difference between surface and bottom waters ranged from 0.26 to 4.77°C.
- Chlorophyll *a* concentrations ranged from 0.29 to 5.29 µg/L.

² Gilbert, R.O. (1987). Statistical Methods for Environmental Pollution Monitoring. Van Nostrand Reinhold Co., New York.

- A sewage-like odor was observed at station A7 on one or more days in April.

Offshore Stations

- Quarterly water quality sampling was not conducted during April at the offshore stations. The next quarterly sampling is scheduled for May 2024.



TABLES AND FIGURES

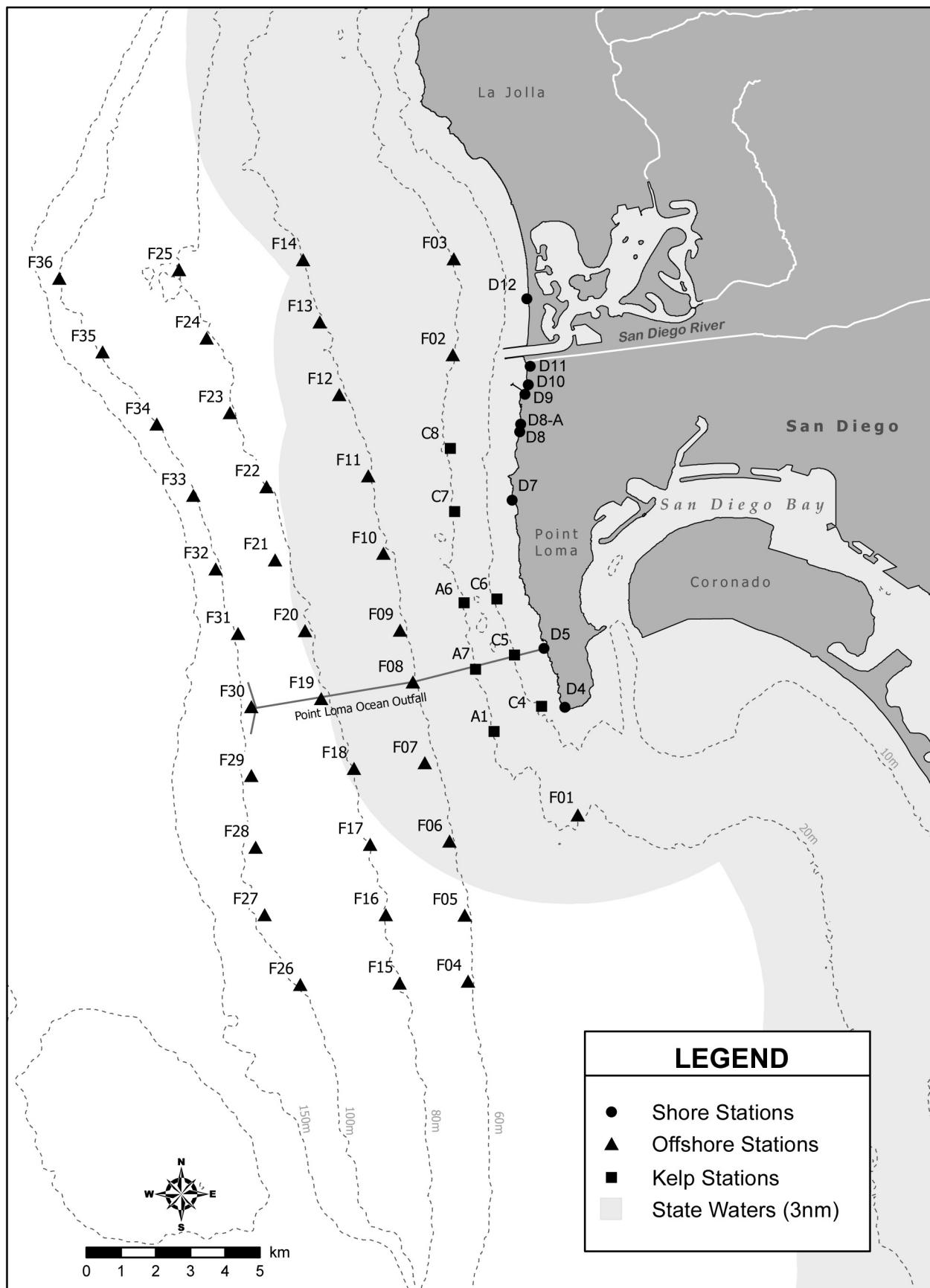


Figure 1.1 Station Map

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Shore Stations

Table 2.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for fecal coliform bacteria 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-B	D9	D10	D11	D12
01 Apr 2024	*3	*2	*2	*6	*2	*7	*8	*4
02 Apr 2024	*3	*2	*2	*6	*2	*7	*8	*4
03 Apr 2024	3	2	2	5	2	6	8	3
04 Apr 2024	3	2	2	5	2	6	8	3
05 Apr 2024	*3	*2	*2	*3	*2	*5	*12	*4
06 Apr 2024	*3	*2	*2	*3	*2	*5	*12	*4
07 Apr 2024	*3	*2	*2	*3	*2	*5	*12	*4
08 Apr 2024	*3	*2	*2	*3	*2	*5	*12	*4
09 Apr 2024	*3	*2	*2	*3	*2	*5	*12	*4
10 Apr 2024	3	2	3	3	2	4	13	3
11 Apr 2024	3	2	3	3	2	4	13	3
12 Apr 2024	*4	*2	*3	*3	*2	*3	*8	*4
13 Apr 2024	*4	*2	*3	*3	*2	*3	*8	*4
14 Apr 2024	*4	*2	*3	*3	*2	*3	*8	*4
15 Apr 2024	*4	*2	*3	*3	*2	*3	*8	*4
16 Apr 2024	*4	*2	*3	*3	*2	*3	*8	*4
17 Apr 2024	3	2	4	3	2	3	7	3
18 Apr 2024	3	2	4	3	2	3	7	3
19 Apr 2024	*2	*2	*4	*2	*2	*3	*10	*3
20 Apr 2024	*2	*2	*4	*2	*2	*3	*10	*3
21 Apr 2024	*2	*2	*4	*2	*2	*3	*10	*3
22 Apr 2024	*2	*2	*4	*2	*2	*3	*10	*3
23 Apr 2024	*2	*2	*4	*2	*2	*3	*10	*3
24 Apr 2024	2	2	4	2	2	4	9	3
25 Apr 2024	2	2	4	2	2	4	9	3
26 Apr 2024	*2	*2	*4	*2	*2	*3	*8	*2
27 Apr 2024	*2	*2	*4	*2	*2	*3	*8	*2
28 Apr 2024	*2	*2	*4	*2	*2	*3	*8	*2
29 Apr 2024	*2	*2	*4	*2	*2	*3	*8	*2
30 Apr 2024	*2	*2	*4	*2	*2	*3	*8	*2

* Geometric mean calculated using n<5

Table 2.2

Summary of compliance at the PLOO shore stations with the 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-B	D9	D10	D11	D12
03 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC
10 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC
17 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC
24 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.3

Summary of compliance with the 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 6 weeks unless otherwise noted (*). Values >35 CFU/100 mL exceed the standard.

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
01 Apr 2024	*2	*3	*2	*3	*3	*4	*4	*4
02 Apr 2024	*2	*3	*2	*3	*3	*4	*4	*4
03 Apr 2024	2	2	2	3	3	4	4	4
04 Apr 2024	2	2	2	3	3	4	4	4
05 Apr 2024	*2	*3	*2	*4	*3	*4	*4	*4
06 Apr 2024	*2	*3	*2	*4	*3	*4	*4	*4
07 Apr 2024	*2	*3	*2	*4	*3	*4	*4	*4
08 Apr 2024	*2	*3	*2	*4	*3	*4	*4	*4
09 Apr 2024	*2	*3	*2	*4	*3	*4	*4	*4
10 Apr 2024	2	2	2	3	3	4	4	4
11 Apr 2024	2	2	2	3	3	4	4	4
12 Apr 2024	*2	*3	*2	*3	*3	*2	*2	*4
13 Apr 2024	*2	*3	*2	*3	*3	*2	*2	*4
14 Apr 2024	*2	*3	*2	*3	*3	*2	*2	*4
15 Apr 2024	*2	*3	*2	*3	*3	*2	*2	*4
16 Apr 2024	*2	*3	*2	*3	*3	*2	*2	*4
17 Apr 2024	2	2	2	3	3	2	2	4
18 Apr 2024	2	2	2	3	3	2	2	4
19 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
20 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
21 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
22 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
23 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
24 Apr 2024	2	2	2	2	3	2	2	2
25 Apr 2024	2	2	2	2	3	2	2	2
26 Apr 2024	*2	*2	*2	*2	*3	*2	*2	*2
27 Apr 2024	*2	*2	*2	*2	*3	*2	*2	*2
28 Apr 2024	*2	*2	*2	*2	*3	*2	*2	*2
29 Apr 2024	*2	*2	*2	*2	*3	*2	*2	*2
30 Apr 2024	*2	*2	*2	*2	*3	*2	*2	*2

* Geometric mean calculated using n<5

Table 2.4

Summary of compliance at the PLOO shore stations with the Ocean Plan's Single Sample Maximum standard for *Enterococcus* bacteria, which states that *Enterococcus* density shall not exceed 104 CFU/100 mL in more than 10% of samples per month.

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
03 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC
10 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC
17 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC
24 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.5

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for total coliform bacteria at the PLOO shore stations. Data are based on the median of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >1000 CFU/100 mL exceed the standard.

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
01 Apr 2024	*9	*4	*3	*22	*9	*37	*18	*6
02 Apr 2024	*9	*4	*3	*22	*9	*37	*18	*6
03 Apr 2024	7	5	3	22	9	24	25	5
04 Apr 2024	7	5	3	22	9	24	25	5
05 Apr 2024	*9	*6	*3	*22	*14	*31	*35	*6
06 Apr 2024	*9	*6	*3	*22	*14	*31	*35	*6
07 Apr 2024	*9	*6	*3	*22	*14	*31	*35	*6
08 Apr 2024	*9	*6	*3	*22	*14	*31	*35	*6
09 Apr 2024	*9	*6	*3	*22	*14	*31	*35	*6
10 Apr 2024	7	6	4	18	11	29	36	8
11 Apr 2024	7	6	4	18	11	29	36	8
12 Apr 2024	*6	*6	*4	*19	*10	*18	*22	*11
13 Apr 2024	*6	*6	*4	*19	*10	*18	*22	*11
14 Apr 2024	*6	*6	*4	*19	*10	*18	*22	*11
15 Apr 2024	*6	*6	*4	*19	*10	*18	*22	*11
16 Apr 2024	*6	*6	*4	*19	*10	*18	*22	*11
17 Apr 2024	5	5	3	17	9	15	18	9
18 Apr 2024	5	5	3	17	9	15	18	9
19 Apr 2024	*4	*3	*4	*14	*9	*14	*32	*7
20 Apr 2024	*4	*3	*4	*14	*9	*14	*32	*7
21 Apr 2024	*4	*3	*4	*14	*9	*14	*32	*7
22 Apr 2024	*4	*3	*4	*14	*9	*14	*32	*7
23 Apr 2024	*4	*3	*4	*14	*9	*14	*32	*7
24 Apr 2024	3	3	5	15	10	15	46	9
25 Apr 2024	3	3	5	15	10	15	46	9
26 Apr 2024	*2	*3	*7	*14	*9	*11	*48	*8
27 Apr 2024	*2	*3	*7	*14	*9	*11	*48	*8
28 Apr 2024	*2	*3	*7	*14	*9	*11	*48	*8
29 Apr 2024	*2	*3	*7	*14	*9	*11	*48	*8
30 Apr 2024	*2	*3	*7	*14	*9	*11	*48	*8

* Median calculated using n<5

Table 2.6

Summary of compliance at the PLOO shore stations with the Ocean Plan's Single Sample Maximum for total coliform bacteria, which states that total coliform density shall not exceed 10000 CFU/100 mL in more than 10% of samples per station, per month.

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
03 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC
10 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC
17 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC
24 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.7

Summary of compliance at the PLOO shore stations with the Ocean Plan's Single Sample Maximum standard for total coliform bacteria 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-B	D9	D10	D11	D12
03 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC
10 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC
17 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC
24 Apr 2024	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.8

Summary of water quality parameters at the PLOO shore stations for each sample date. Densities of fecal coliform (Fecal) and *Enterococcus* (Enter) are reported as CFU/100 mL. Comments follow the data summary.

Station	Date	Time	Total	Fecal	Enter
D10	03 Apr 2024	759	4e	<2	<2
D10	10 Apr 2024	801	20e	2e	2e
D10	17 Apr 2024	823	8e	4e	2e
D10	24 Apr 2024	812	20e	8e	<2
D11	03 Apr 2024	751	80e	10e	2e
D11	10 Apr 2024	753	40e	<20	2e
D11	17 Apr 2024	815	8e	4e	<2
D11	24 Apr 2024	804	<200	6e	4e
D12	03 Apr 2024	736	<2	2e	<2
D12	10 Apr 2024	738	<20	<2	<2
D12	17 Apr 2024	800	4e	<2	<2
D12	24 Apr 2024	749	<20	<2	<2
D4	03 Apr 2024	855	2e	2e	<2
D4	10 Apr 2024	855	<2	4e	<2
D4	17 Apr 2024	922	<2	<2	<2
D4	24 Apr 2024	911	<2	2e	<2
D5	03 Apr 2024	845	8e	4e	<2
D5	10 Apr 2024	844	4e	2e	<2
D5	17 Apr 2024	910	<2	<2	<2
D5	24 Apr 2024	900	2e	<2	<2
D7	03 Apr 2024	825	2e	<2	2e
D7	10 Apr 2024	824	28e	18e	<2
D7	17 Apr 2024	849	2e	4e	<2
D7	24 Apr 2024	837	<20	2e	2e
D8-B	03 Apr 2024	815	<20	2e	4e
D8-B	10 Apr 2024	816	8e	4e	<2
D8-B	17 Apr 2024	838	12e	<2	<2
D8-B	24 Apr 2024		20e	<2	<2
D9	03 Apr 2024	808	12e	<2	2e
D9	10 Apr 2024	809	4e	<2	<2
D9	17 Apr 2024	831	6e	<2	<2
D9	24 Apr 2024	819	<20	4e	10e

ns = not sampled

ND = no data

Table 2.9

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

Station	Date	Parameter	Value
D10	03 Apr 2024	Arrive Time	759
D10	03 Apr 2024	Weather	Sunny
D10	03 Apr 2024	Wind Speed (kts)	1.3
D10	03 Apr 2024	Wind Dir	E
D10	03 Apr 2024	Animal Life	Dog-1;
D10	03 Apr 2024	Floatables	None
D10	03 Apr 2024	Water Color	Green
D10	03 Apr 2024	Current Direction	S
D10	03 Apr 2024	Water Temp (C)	11.1
D10	03 Apr 2024	Wave Height (ft)	3
D10	03 Apr 2024	High Tide (ft)	4.5
D10	03 Apr 2024	High Tide Time	457
D10	03 Apr 2024	Low Tide (ft)	-0.37
D10	03 Apr 2024	Low Tide Time	1239
D10	03 Apr 2024	Comments	Water clear; Surfer/Paddle boarder-1; Trash-1; Kelp;Seagrass;Debris; Person/Walker/Jogger-1
D10	10 Apr 2024	Arrive Time	801
D10	10 Apr 2024	Weather	Sunny
D10	10 Apr 2024	Wind Speed (kts)	0.5
D10	10 Apr 2024	Wind Dir	E
D10	10 Apr 2024	Animal Life	Dog-2;
D10	10 Apr 2024	Floatables	None
D10	10 Apr 2024	Water Color	Green
D10	10 Apr 2024	Current Direction	S
D10	10 Apr 2024	Water Temp (C)	9.4
D10	10 Apr 2024	Wave Height (ft)	3
D10	10 Apr 2024	High Tide (ft)	4.08
D10	10 Apr 2024	High Tide Time	1110
D10	10 Apr 2024	Low Tide (ft)	-0.98
D10	10 Apr 2024	Low Tide Time	507
D10	10 Apr 2024	Comments	Water clear; Surfer/Paddle boarder-8; Trash-1; Debris;Seagrass;Kelp; Person/Walker/Jogger-2
D10	17 Apr 2024	Arrive Time	823
D10	17 Apr 2024	Weather	Sunny
D10	17 Apr 2024	Wind Speed (kts)	3.1
D10	17 Apr 2024	Wind Dir	NW
D10	17 Apr 2024	Animal Life	
D10	17 Apr 2024	Floatables	None
D10	17 Apr 2024	Water Color	Green
D10	17 Apr 2024	Current Direction	S
D10	17 Apr 2024	Water Temp (C)	10.7
D10	17 Apr 2024	Wave Height (ft)	3
D10	17 Apr 2024	High Tide (ft)	4.03
D10	17 Apr 2024	High Tide Time	538
D10	17 Apr 2024	Low Tide (ft)	2.4
D10	17 Apr 2024	Low Tide Time	19
D10	17 Apr 2024	Comments	Water clear; Surfer/Paddle boarder-5; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-1
D10	24 Apr 2024	Arrive Time	812
D10	24 Apr 2024	Weather	Cloudy
D10	24 Apr 2024	Wind Speed (kts)	3
D10	24 Apr 2024	Wind Dir	NW
D10	24 Apr 2024	Animal Life	

Station	Date	Parameter	Value
D10	24 Apr 2024	Floatables	None
D10	24 Apr 2024	Water Color	Green
D10	24 Apr 2024	Current Direction	S
D10	24 Apr 2024	Water Temp (C)	11.9
D10	24 Apr 2024	Wave Height (ft)	3
D10	24 Apr 2024	High Tide (ft)	3.7
D10	24 Apr 2024	High Tide Time	1016
D10	24 Apr 2024	Low Tide (ft)	-0.29
D10	24 Apr 2024	Low Tide Time	417
D10	24 Apr 2024	Comments	Water clear; Surfer/Paddle boarder-2; Trash-1; Kelp;Seagrass;Algae
D11	03 Apr 2024	Arrive Time	751
D11	03 Apr 2024	Weather	Sunny
D11	03 Apr 2024	Wind Speed (kts)	1.4
D11	03 Apr 2024	Wind Dir	E
D11	03 Apr 2024	Animal Life	
D11	03 Apr 2024	Floatables	None
D11	03 Apr 2024	Water Color	Green
D11	03 Apr 2024	Current Direction	S
D11	03 Apr 2024	Water Temp (C)	10.7
D11	03 Apr 2024	Wave Height (ft)	3
D11	03 Apr 2024	High Tide (ft)	4.5
D11	03 Apr 2024	High Tide Time	457
D11	03 Apr 2024	Low Tide (ft)	-0.37
D11	03 Apr 2024	Low Tide Time	1239
D11	03 Apr 2024	Comments	Water clear; Surfer/Paddle boarder-4; Trash-2; Kelp;Debris;Algae
D11	10 Apr 2024	Arrive Time	753
D11	10 Apr 2024	Weather	Sunny
D11	10 Apr 2024	Wind Speed (kts)	4.7
D11	10 Apr 2024	Wind Dir	E
D11	10 Apr 2024	Animal Life	Bird-5;
D11	10 Apr 2024	Floatables	None
D11	10 Apr 2024	Water Color	Green
D11	10 Apr 2024	Current Direction	S
D11	10 Apr 2024	Water Temp (C)	9.5
D11	10 Apr 2024	Wave Height (ft)	3
D11	10 Apr 2024	High Tide (ft)	4.08
D11	10 Apr 2024	High Tide Time	1110
D11	10 Apr 2024	Low Tide (ft)	-0.98
D11	10 Apr 2024	Low Tide Time	507
D11	10 Apr 2024	Comments	Water clear; Surfer/Paddle boarder-6; Trash-2; Algae;Seagrass;Kelp;Debris
D11	17 Apr 2024	Arrive Time	815
D11	17 Apr 2024	Weather	Sunny
D11	17 Apr 2024	Wind Speed (kts)	1.4
D11	17 Apr 2024	Wind Dir	NW
D11	17 Apr 2024	Animal Life	
D11	17 Apr 2024	Floatables	None
D11	17 Apr 2024	Water Color	Green
D11	17 Apr 2024	Current Direction	S
D11	17 Apr 2024	Water Temp (C)	10.8
D11	17 Apr 2024	Wave Height (ft)	3
D11	17 Apr 2024	High Tide (ft)	4.03
D11	17 Apr 2024	High Tide Time	538
D11	17 Apr 2024	Low Tide (ft)	2.4
D11	17 Apr 2024	Low Tide Time	19

Station	Date	Parameter	Value
D11	17 Apr 2024	Comments	Water clear; Surfer/Paddle boarder-4; Trash-1; Kelp;Seagrass;Algae; Person/Walker/Jogger-1
D11	24 Apr 2024	Arrive Time	804
D11	24 Apr 2024	Weather	Cloudy
D11	24 Apr 2024	Wind Speed (kts)	2.5
D11	24 Apr 2024	Wind Dir	NW
D11	24 Apr 2024	Animal Life	
D11	24 Apr 2024	Floatables	None
D11	24 Apr 2024	Water Color	Green
D11	24 Apr 2024	Current Direction	S
D11	24 Apr 2024	Water Temp (C)	12.7
D11	24 Apr 2024	Wave Height (ft)	3
D11	24 Apr 2024	High Tide (ft)	3.7
D11	24 Apr 2024	High Tide Time	1016
D11	24 Apr 2024	Low Tide (ft)	-0.29
D11	24 Apr 2024	Low Tide Time	417
D11	24 Apr 2024	Comments	Water clear; Surfer/Paddle boarder-3; Trash-1; Kelp;Seagrass;Algae
D12	03 Apr 2024	Arrive Time	736
D12	03 Apr 2024	Weather	Sunny
D12	03 Apr 2024	Wind Speed (kts)	0.6
D12	03 Apr 2024	Wind Dir	E
D12	03 Apr 2024	Animal Life	
D12	03 Apr 2024	Floatables	None
D12	03 Apr 2024	Water Color	Green
D12	03 Apr 2024	Current Direction	S
D12	03 Apr 2024	Water Temp (C)	13
D12	03 Apr 2024	Wave Height (ft)	3
D12	03 Apr 2024	High Tide (ft)	4.5
D12	03 Apr 2024	High Tide Time	457
D12	03 Apr 2024	Low Tide (ft)	-0.37
D12	03 Apr 2024	Low Tide Time	1239
D12	03 Apr 2024	Comments	Water clear; Surfer/Paddle boarder-1; Trash-3; Kelp;Seagrass;Debris; Person/Walker/Jogger-1
D12	10 Apr 2024	Arrive Time	738
D12	10 Apr 2024	Weather	Sunny
D12	10 Apr 2024	Wind Speed (kts)	1
D12	10 Apr 2024	Wind Dir	E
D12	10 Apr 2024	Animal Life	Bird-1;
D12	10 Apr 2024	Floatables	None
D12	10 Apr 2024	Water Color	Green
D12	10 Apr 2024	Current Direction	S
D12	10 Apr 2024	Water Temp (C)	11.9
D12	10 Apr 2024	Wave Height (ft)	3
D12	10 Apr 2024	High Tide (ft)	4.08
D12	10 Apr 2024	High Tide Time	1110
D12	10 Apr 2024	Low Tide (ft)	-0.98
D12	10 Apr 2024	Low Tide Time	507
D12	10 Apr 2024	Comments	Water clear; Boogie boarder/Swimmer-1; Surfer/Paddle boarder-2; Trash-1; Debris;Kelp;Seagrass
D12	17 Apr 2024	Arrive Time	800
D12	17 Apr 2024	Weather	Sunny
D12	17 Apr 2024	Wind Speed (kts)	1.9
D12	17 Apr 2024	Wind Dir	NW
D12	17 Apr 2024	Animal Life	
D12	17 Apr 2024	Floatables	None
D12	17 Apr 2024	Water Color	Green

Station	Date	Parameter	Value
D12	17 Apr 2024	Current Direction	S
D12	17 Apr 2024	Water Temp (C)	11.6
D12	17 Apr 2024	Wave Height (ft)	2
D12	17 Apr 2024	High Tide (ft)	4.03
D12	17 Apr 2024	High Tide Time	538
D12	17 Apr 2024	Low Tide (ft)	2.4
D12	17 Apr 2024	Low Tide Time	19
D12	17 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-2
D12	24 Apr 2024	Arrive Time	749
D12	24 Apr 2024	Weather	Cloudy
D12	24 Apr 2024	Wind Speed (kts)	2.4
D12	24 Apr 2024	Wind Dir	NW
D12	24 Apr 2024	Animal Life	
D12	24 Apr 2024	Floatables	None
D12	24 Apr 2024	Water Color	Green
D12	24 Apr 2024	Current Direction	S
D12	24 Apr 2024	Water Temp (C)	14.4
D12	24 Apr 2024	Wave Height (ft)	2
D12	24 Apr 2024	High Tide (ft)	3.7
D12	24 Apr 2024	High Tide Time	1016
D12	24 Apr 2024	Low Tide (ft)	-0.29
D12	24 Apr 2024	Low Tide Time	417
D12	24 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-2
D4	03 Apr 2024	Arrive Time	855
D4	03 Apr 2024	Weather	Sunny
D4	03 Apr 2024	Wind Speed (kts)	0
D4	03 Apr 2024	Wind Dir	XX
D4	03 Apr 2024	Animal Life	
D4	03 Apr 2024	Floatables	None
D4	03 Apr 2024	Water Color	Green
D4	03 Apr 2024	Current Direction	S
D4	03 Apr 2024	Water Temp (C)	9.2
D4	03 Apr 2024	Wave Height (ft)	2
D4	03 Apr 2024	High Tide (ft)	4.5
D4	03 Apr 2024	High Tide Time	457
D4	03 Apr 2024	Low Tide (ft)	-0.37
D4	03 Apr 2024	Low Tide Time	1239
D4	03 Apr 2024	Comments	Water clear; Trash-1; Seagrass;Algae
D4	10 Apr 2024	Arrive Time	855
D4	10 Apr 2024	Weather	Sunny
D4	10 Apr 2024	Wind Speed (kts)	3.5
D4	10 Apr 2024	Wind Dir	SE
D4	10 Apr 2024	Animal Life	
D4	10 Apr 2024	Floatables	None
D4	10 Apr 2024	Water Color	Green
D4	10 Apr 2024	Current Direction	S
D4	10 Apr 2024	Water Temp (C)	6.8
D4	10 Apr 2024	Wave Height (ft)	2
D4	10 Apr 2024	High Tide (ft)	4.08
D4	10 Apr 2024	High Tide Time	1110
D4	10 Apr 2024	Low Tide (ft)	-0.98
D4	10 Apr 2024	Low Tide Time	507
D4	10 Apr 2024	Comments	Water clear; Trash-1; Algae
D4	17 Apr 2024	Arrive Time	922
D4	17 Apr 2024	Weather	Sunny

Station	Date	Parameter	Value
D4	17 Apr 2024	Wind Speed (kts)	1.2
D4	17 Apr 2024	Wind Dir	NW
D4	17 Apr 2024	Animal Life	Bird-2;
D4	17 Apr 2024	Floatables	None
D4	17 Apr 2024	Water Color	Green
D4	17 Apr 2024	Current Direction	S
D4	17 Apr 2024	Water Temp (C)	12.3
D4	17 Apr 2024	Wave Height (ft)	3
D4	17 Apr 2024	High Tide (ft)	4.03
D4	17 Apr 2024	High Tide Time	538
D4	17 Apr 2024	Low Tide (ft)	2.4
D4	17 Apr 2024	Low Tide Time	19
D4	17 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
D4	24 Apr 2024	Arrive Time	911
D4	24 Apr 2024	Weather	Partly cloudy
D4	24 Apr 2024	Wind Speed (kts)	0.5
D4	24 Apr 2024	Wind Dir	NW
D4	24 Apr 2024	Animal Life	
D4	24 Apr 2024	Floatables	None
D4	24 Apr 2024	Water Color	Green
D4	24 Apr 2024	Current Direction	S
D4	24 Apr 2024	Water Temp (C)	10
D4	24 Apr 2024	Wave Height (ft)	2
D4	24 Apr 2024	High Tide (ft)	3.7
D4	24 Apr 2024	High Tide Time	1016
D4	24 Apr 2024	Low Tide (ft)	-0.29
D4	24 Apr 2024	Low Tide Time	417
D4	24 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
D5	03 Apr 2024	Arrive Time	845
D5	03 Apr 2024	Weather	Sunny
D5	03 Apr 2024	Wind Speed (kts)	1.3
D5	03 Apr 2024	Wind Dir	NE
D5	03 Apr 2024	Animal Life	
D5	03 Apr 2024	Floatables	None
D5	03 Apr 2024	Water Color	Green
D5	03 Apr 2024	Current Direction	S
D5	03 Apr 2024	Water Temp (C)	11.1
D5	03 Apr 2024	Wave Height (ft)	4
D5	03 Apr 2024	High Tide (ft)	4.5
D5	03 Apr 2024	High Tide Time	457
D5	03 Apr 2024	Low Tide (ft)	-0.37
D5	03 Apr 2024	Low Tide Time	1239
D5	03 Apr 2024	Comments	Water clear; Trash-1; Algae
D5	10 Apr 2024	Arrive Time	844
D5	10 Apr 2024	Weather	Sunny
D5	10 Apr 2024	Wind Speed (kts)	0
D5	10 Apr 2024	Wind Dir	XX
D5	10 Apr 2024	Animal Life	
D5	10 Apr 2024	Floatables	None
D5	10 Apr 2024	Water Color	Green
D5	10 Apr 2024	Current Direction	S
D5	10 Apr 2024	Water Temp (C)	9.4
D5	10 Apr 2024	Wave Height (ft)	2
D5	10 Apr 2024	High Tide (ft)	4.08
D5	10 Apr 2024	High Tide Time	1110
D5	10 Apr 2024	Low Tide (ft)	-0.98
D5	10 Apr 2024	Low Tide Time	507
D5	10 Apr 2024	Comments	Water clear; Trash-1; Algae

Station	Date	Parameter	Value
D5	17 Apr 2024	Arrive Time	910
D5	17 Apr 2024	Weather	Sunny
D5	17 Apr 2024	Wind Speed (kts)	2.9
D5	17 Apr 2024	Wind Dir	NW
D5	17 Apr 2024	Animal Life	
D5	17 Apr 2024	Floatables	None
D5	17 Apr 2024	Water Color	Green
D5	17 Apr 2024	Current Direction	S
D5	17 Apr 2024	Water Temp (C)	11.8
D5	17 Apr 2024	Wave Height (ft)	2
D5	17 Apr 2024	High Tide (ft)	4.03
D5	17 Apr 2024	High Tide Time	538
D5	17 Apr 2024	Low Tide (ft)	2.4
D5	17 Apr 2024	Low Tide Time	19
D5	17 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
D5	24 Apr 2024	Arrive Time	900
D5	24 Apr 2024	Weather	Partly cloudy
D5	24 Apr 2024	Wind Speed (kts)	1.7
D5	24 Apr 2024	Wind Dir	NW
D5	24 Apr 2024	Animal Life	
D5	24 Apr 2024	Floatables	None
D5	24 Apr 2024	Water Color	Green
D5	24 Apr 2024	Current Direction	S
D5	24 Apr 2024	Water Temp (C)	14.6
D5	24 Apr 2024	Wave Height (ft)	3
D5	24 Apr 2024	High Tide (ft)	3.7
D5	24 Apr 2024	High Tide Time	1016
D5	24 Apr 2024	Low Tide (ft)	-0.29
D5	24 Apr 2024	Low Tide Time	417
D5	24 Apr 2024	Comments	Water clear; Trash-1; Kelp;Algae;Seagrass
D7	03 Apr 2024	Arrive Time	825
D7	03 Apr 2024	Weather	Sunny
D7	03 Apr 2024	Wind Speed (kts)	0
D7	03 Apr 2024	Wind Dir	XX
D7	03 Apr 2024	Animal Life	
D7	03 Apr 2024	Floatables	None
D7	03 Apr 2024	Water Color	Green
D7	03 Apr 2024	Current Direction	S
D7	03 Apr 2024	Water Temp (C)	9.5
D7	03 Apr 2024	Wave Height (ft)	3
D7	03 Apr 2024	High Tide (ft)	4.5
D7	03 Apr 2024	High Tide Time	457
D7	03 Apr 2024	Low Tide (ft)	-0.37
D7	03 Apr 2024	Low Tide Time	1239
D7	03 Apr 2024	Comments	Water clear; Trash-1; Algae
D7	10 Apr 2024	Arrive Time	824
D7	10 Apr 2024	Weather	Sunny
D7	10 Apr 2024	Wind Speed (kts)	0
D7	10 Apr 2024	Wind Dir	XX
D7	10 Apr 2024	Animal Life	
D7	10 Apr 2024	Floatables	None
D7	10 Apr 2024	Water Color	Green
D7	10 Apr 2024	Current Direction	S
D7	10 Apr 2024	Water Temp (C)	10
D7	10 Apr 2024	Wave Height (ft)	1
D7	10 Apr 2024	High Tide (ft)	4.08
D7	10 Apr 2024	High Tide Time	1110

Station	Date	Parameter	Value
D7	10 Apr 2024	Low Tide (ft)	-0.98
D7	10 Apr 2024	Low Tide Time	507
D7	10 Apr 2024	Comments	Water clear; Trash-1; Algae
D7	17 Apr 2024	Arrive Time	849
D7	17 Apr 2024	Weather	Sunny
D7	17 Apr 2024	Wind Speed (kts)	0
D7	17 Apr 2024	Wind Dir	NW
D7	17 Apr 2024	Animal Life	
D7	17 Apr 2024	Floatables	None
D7	17 Apr 2024	Water Color	Green
D7	17 Apr 2024	Current Direction	S
D7	17 Apr 2024	Water Temp (C)	10.7
D7	17 Apr 2024	Wave Height (ft)	3
D7	17 Apr 2024	High Tide (ft)	4.03
D7	17 Apr 2024	High Tide Time	538
D7	17 Apr 2024	Low Tide (ft)	2.4
D7	17 Apr 2024	Low Tide Time	19
D7	17 Apr 2024	Comments	Water clear; Surfer/Paddle boarder-6; Trash-1; Kelp;Seagrass;Algae
D7	24 Apr 2024	Arrive Time	837
D7	24 Apr 2024	Weather	Cloudy
D7	24 Apr 2024	Wind Speed (kts)	1.7
D7	24 Apr 2024	Wind Dir	NW
D7	24 Apr 2024	Animal Life	
D7	24 Apr 2024	Floatables	None
D7	24 Apr 2024	Water Color	Green
D7	24 Apr 2024	Current Direction	S
D7	24 Apr 2024	Water Temp (C)	10.5
D7	24 Apr 2024	Wave Height (ft)	3
D7	24 Apr 2024	High Tide (ft)	3.7
D7	24 Apr 2024	High Tide Time	1016
D7	24 Apr 2024	Low Tide (ft)	-0.29
D7	24 Apr 2024	Low Tide Time	417
D7	24 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
D8-B	03 Apr 2024	Arrive Time	815
D8-B	03 Apr 2024	Weather	Sunny
D8-B	03 Apr 2024	Wind Speed (kts)	0
D8-B	03 Apr 2024	Wind Dir	XX
D8-B	03 Apr 2024	Animal Life	
D8-B	03 Apr 2024	Floatables	None
D8-B	03 Apr 2024	Water Color	Green
D8-B	03 Apr 2024	Current Direction	S
D8-B	03 Apr 2024	Water Temp (C)	9.5
D8-B	03 Apr 2024	Wave Height (ft)	4
D8-B	03 Apr 2024	High Tide (ft)	4.5
D8-B	03 Apr 2024	High Tide Time	457
D8-B	03 Apr 2024	Low Tide (ft)	-0.37
D8-B	03 Apr 2024	Low Tide Time	1239
D8-B	03 Apr 2024	Comments	Water clear; Surfer/Paddle boarder-2; Trash-1; Algae
D8-B	10 Apr 2024	Arrive Time	816
D8-B	10 Apr 2024	Weather	Sunny
D8-B	10 Apr 2024	Wind Speed (kts)	0
D8-B	10 Apr 2024	Wind Dir	XX
D8-B	10 Apr 2024	Animal Life	
D8-B	10 Apr 2024	Floatables	None
D8-B	10 Apr 2024	Water Color	Green
D8-B	10 Apr 2024	Current Direction	S

Station	Date	Parameter	Value
D8-B	10 Apr 2024	Water Temp (C)	11.2
D8-B	10 Apr 2024	Wave Height (ft)	3
D8-B	10 Apr 2024	High Tide (ft)	4.08
D8-B	10 Apr 2024	High Tide Time	1110
D8-B	10 Apr 2024	Low Tide (ft)	-0.98
D8-B	10 Apr 2024	Low Tide Time	507
D8-B	10 Apr 2024	Comments	Water clear; Trash-1; Algae
D8-B	17 Apr 2024	Arrive Time	838
D8-B	17 Apr 2024	Weather	Sunny
D8-B	17 Apr 2024	Wind Speed (kts)	1.7
D8-B	17 Apr 2024	Wind Dir	NW
D8-B	17 Apr 2024	Animal Life	
D8-B	17 Apr 2024	Floatables	None
D8-B	17 Apr 2024	Water Color	Green
D8-B	17 Apr 2024	Current Direction	S
D8-B	17 Apr 2024	Water Temp (C)	12
D8-B	17 Apr 2024	Wave Height (ft)	3
D8-B	17 Apr 2024	High Tide (ft)	4.03
D8-B	17 Apr 2024	High Tide Time	538
D8-B	17 Apr 2024	Low Tide (ft)	2.4
D8-B	17 Apr 2024	Low Tide Time	19
D8-B	17 Apr 2024	Comments	Water clear; Surfer/Paddle boarder-2; Trash-1; Kelp;Seagrass;Algae; Person/Walker/Jogger-1
D9	03 Apr 2024	Arrive Time	808
D9	03 Apr 2024	Weather	Sunny
D9	03 Apr 2024	Wind Speed (kts)	0
D9	03 Apr 2024	Wind Dir	XX
D9	03 Apr 2024	Animal Life	
D9	03 Apr 2024	Floatables	None
D9	03 Apr 2024	Water Color	Green
D9	03 Apr 2024	Current Direction	S
D9	03 Apr 2024	Water Temp (C)	10.9
D9	03 Apr 2024	Wave Height (ft)	3
D9	03 Apr 2024	High Tide (ft)	4.5
D9	03 Apr 2024	High Tide Time	457
D9	03 Apr 2024	Low Tide (ft)	-0.37
D9	03 Apr 2024	Low Tide Time	1239
D9	03 Apr 2024	Comments	Water clear; Trash-1; Algae
D9	10 Apr 2024	Arrive Time	809
D9	10 Apr 2024	Weather	Sunny
D9	10 Apr 2024	Wind Speed (kts)	0.6
D9	10 Apr 2024	Wind Dir	NE
D9	10 Apr 2024	Animal Life	
D9	10 Apr 2024	Floatables	None
D9	10 Apr 2024	Water Color	Green
D9	10 Apr 2024	Current Direction	S
D9	10 Apr 2024	Water Temp (C)	10
D9	10 Apr 2024	Wave Height (ft)	2
D9	10 Apr 2024	High Tide (ft)	4.08
D9	10 Apr 2024	High Tide Time	1110
D9	10 Apr 2024	Low Tide (ft)	-0.98
D9	10 Apr 2024	Low Tide Time	507
D9	10 Apr 2024	Comments	Water clear; Trash-1; Algae
D9	17 Apr 2024	Arrive Time	831
D9	17 Apr 2024	Weather	Sunny
D9	17 Apr 2024	Wind Speed (kts)	1.2
D9	17 Apr 2024	Wind Dir	NW

Station	Date	Parameter	Value
D9	17 Apr 2024	Animal Life	Dog-3;
D9	17 Apr 2024	Floatables	None
D9	17 Apr 2024	Water Color	Green
D9	17 Apr 2024	Current Direction	S
D9	17 Apr 2024	Water Temp (C)	11.8
D9	17 Apr 2024	Wave Height (ft)	3
D9	17 Apr 2024	High Tide (ft)	4.03
D9	17 Apr 2024	High Tide Time	538
D9	17 Apr 2024	Low Tide (ft)	2.4
D9	17 Apr 2024	Low Tide Time	19
D9	17 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae; Person/Walker/Jogger-2
D9	24 Apr 2024	Arrive Time	819
D9	24 Apr 2024	Weather	Cloudy
D9	24 Apr 2024	Wind Speed (kts)	1.3
D9	24 Apr 2024	Wind Dir	NW
D9	24 Apr 2024	Animal Life	Dog-1;
D9	24 Apr 2024	Floatables	None
D9	24 Apr 2024	Water Color	Green
D9	24 Apr 2024	Current Direction	S
D9	24 Apr 2024	Water Temp (C)	12.4
D9	24 Apr 2024	Wave Height (ft)	3
D9	24 Apr 2024	High Tide (ft)	3.7
D9	24 Apr 2024	High Tide Time	1016
D9	24 Apr 2024	Low Tide (ft)	-0.29
D9	24 Apr 2024	Low Tide Time	417
D9	24 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae; Person/Walker/Jogger-4

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Kelp Stations

Table 3.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for fecal coliform bacteria 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 2024	*3	*5	*2	*2	*2	*2	*3	*2
02 Apr 2024	4	4	3	2	2	2	3	3
03 Apr 2024	4	4	3	2	2	2	3	3
04 Apr 2024	4	4	3	2	2	2	3	3
05 Apr 2024	*4	*5	*3	*2	*2	*2	*3	*4
06 Apr 2024	*4	*5	*3	*2	*2	*2	*3	*4
07 Apr 2024	*4	*5	*3	*2	*2	*2	*3	*4
08 Apr 2024	*4	*5	*3	*2	*2	*2	*3	*4
09 Apr 2024	4	5	3	2	2	2	4	4
10 Apr 2024	4	5	3	2	2	2	4	4
11 Apr 2024	*4	*5	*3	*2	*2	*2	*4	*5
12 Apr 2024	*4	*5	*3	*2	*2	*2	*4	*5
13 Apr 2024	*4	*5	*3	*2	*2	*2	*4	*5
14 Apr 2024	*4	*5	*3	*2	*2	*2	*4	*5
15 Apr 2024	*4	*5	*3	*2	*2	*2	*4	*5
16 Apr 2024	4	4	3	2	2	2	4	4
17 Apr 2024	4	4	3	2	2	2	4	4
18 Apr 2024	*5	*3	*3	*2	*2	*2	*4	*5
19 Apr 2024	*5	*3	*3	*2	*2	*2	*4	*5
20 Apr 2024	*5	*3	*3	*2	*2	*2	*4	*5
21 Apr 2024	*5	*3	*3	*2	*2	*2	*4	*5
22 Apr 2024	*5	*3	*3	*2	*2	*2	*4	*5
23 Apr 2024	4	3	3	2	2	2	3	4
24 Apr 2024	4	3	3	2	2	2	3	4
25 Apr 2024	*3	*2	*3	*2	*2	*2	*3	*4
26 Apr 2024	*3	*2	*3	*2	*2	*2	*3	*4
27 Apr 2024	*3	*2	*3	*2	*2	*2	*3	*4
28 Apr 2024	*3	*2	*3	*2	*2	*2	*3	*4
29 Apr 2024	*3	*2	*3	*2	*2	*2	*3	*4
30 Apr 2024	*3	*2	*3	*2	*2	*2	*3	*4

* Geometric mean calculated using n<5

Table 3.2

Summary of compliance at the PLOO kelp stations with the 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 2024	IC							
09 Apr 2024	IC							
16 Apr 2024	IC							
23 Apr 2024	IC							

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.3

Summary of compliance with the 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 6 weeks unless otherwise noted (*). Values >35 CFU/100 mL exceed the standard.

Date	A1	A6	A7	C4	C5	C6	C7	C8
01 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*2
02 Apr 2024	2	2	2	2	2	2	2	2
03 Apr 2024	2	2	2	2	2	2	2	2
04 Apr 2024	2	2	2	2	2	2	2	2
05 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
06 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
07 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
08 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
09 Apr 2024	2	2	2	2	2	2	2	2
10 Apr 2024	2	2	2	2	2	2	2	2
11 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
12 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
13 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
14 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
15 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*3
16 Apr 2024	2	2	2	2	2	2	2	2
17 Apr 2024	2	2	2	2	2	2	2	2
18 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*2
19 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*2
20 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*2
21 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*2
22 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*2
23 Apr 2024	2	2	2	2	2	2	2	2
24 Apr 2024	2	2	2	2	2	2	2	2
25 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*2
26 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*2
27 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*2
28 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*2
29 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*2
30 Apr 2024	*2	*2	*2	*2	*2	*2	*2	*2

* Geometric mean calculated using n<5

Table 3.4

Summary of compliance at the PLOO kelp stations with the Ocean Plan's Single Sample Maximum standard for *Enterococcus* bacteria, which states that *Enterococcus* density shall not exceed 104 CFU/100 mL in more than 10% of samples per month.

Date	A1	A6	A7	C4	C5	C6	C7	C8
02 Apr 2024	IC							
09 Apr 2024	IC							
16 Apr 2024	IC							
23 Apr 2024	IC							

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.5

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for total coliform bacteria at the PLOO kelp stations. Data are based on the median of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >1000 CFU/100 mL exceed the standard.

Date	A1	A6	A7	C4	C5	C6	C7	C8
01 Apr 2024	*10	*14	*5	*3	*4	*3	*10	*4
02 Apr 2024	11	14	7	3	5	3	10	7
03 Apr 2024	11	14	7	3	5	3	10	7
04 Apr 2024	11	14	7	3	5	3	10	7
05 Apr 2024	*11	*22	*10	*4	*6	*3	*16	*9
06 Apr 2024	*11	*22	*10	*4	*6	*3	*16	*9
07 Apr 2024	*11	*22	*10	*4	*6	*3	*16	*9
08 Apr 2024	*11	*22	*10	*4	*6	*3	*16	*9
09 Apr 2024	11	22	9	3	5	3	19	12
10 Apr 2024	11	22	9	3	5	3	19	12
11 Apr 2024	*11	*23	*10	*3	*6	*2	*19	*17
12 Apr 2024	*11	*23	*10	*3	*6	*2	*19	*17
13 Apr 2024	*11	*23	*10	*3	*6	*2	*19	*17
14 Apr 2024	*11	*23	*10	*3	*6	*2	*19	*17
15 Apr 2024	*11	*23	*10	*3	*6	*2	*19	*17
16 Apr 2024	9	17	11	3	5	2	15	14
17 Apr 2024	9	17	11	3	5	2	15	14
18 Apr 2024	*12	*14	*15	*3	*5	*2	*17	*20
19 Apr 2024	*12	*14	*15	*3	*5	*2	*17	*20
20 Apr 2024	*12	*14	*15	*3	*5	*2	*17	*20
21 Apr 2024	*12	*14	*15	*3	*5	*2	*17	*20
22 Apr 2024	*12	*14	*15	*3	*5	*2	*17	*20
23 Apr 2024	9	13	12	3	4	2	11	12
24 Apr 2024	9	13	12	3	4	2	11	12
25 Apr 2024	*8	*10	*11	*3	*3	*2	*9	*13
26 Apr 2024	*8	*10	*11	*3	*3	*2	*9	*13
27 Apr 2024	*8	*10	*11	*3	*3	*2	*9	*13
28 Apr 2024	*8	*10	*11	*3	*3	*2	*9	*13
29 Apr 2024	*8	*10	*11	*3	*3	*2	*9	*13
30 Apr 2024	*8	*10	*11	*3	*3	*2	*9	*13

- Median calculated using n<5

Table 3.6

Summary of compliance at the PLOO kelp stations with the Ocean Plan's Single Sample Maximum for total coliform bacteria, which states that total coliform density shall not exceed 400 CFU/100 mL in more than 10% of samples per station, per month.

Date	A1	A6	A7	C4	C5	C6	C7	C8
02 Apr 2024	IC							
09 Apr 2024	IC							
16 Apr 2024	IC							
23 Apr 2024	IC							

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.7

Summary of compliance at the PLOO kelp stations with the Ocean Plan's Single Sample Maximum standard for total coliform bacteria 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 2024	IC							
09 Apr 2024	IC							
16 Apr 2024	IC							
23 Apr 2024	IC							

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

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* (Enter) bacteria are reported as CFU/100 mL; 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	Enter
A1	02 Apr 2024	802	1	8e	2e	<2
A1	02 Apr 2024	802	12	14e	2e	<2
A1	02 Apr 2024	802	18	36e	10e	2e
A1	09 Apr 2024	759	1	<2	2e	<2
A1	09 Apr 2024	759	12	8e	<2	<2
A1	09 Apr 2024	759	18	24e	8e	<2
A1	16 Apr 2024	747	1	<2	<2	<2
A1	16 Apr 2024	747	12	<2	4e	<2
A1	16 Apr 2024	747	18	8e	4e	<2
A1	23 Apr 2024	748	1	<2	<2	<2
A1	23 Apr 2024	748	12	2e	<2	<2
A1	23 Apr 2024	748	18	8e	<2	<2
A6	02 Apr 2024	843	1	<2	<2	<2
A6	02 Apr 2024	843	12	16e	2e	<2
A6	02 Apr 2024	843	18	16e	2e	<2
A6	09 Apr 2024	832	1	<2	<2	<2
A6	09 Apr 2024	832	12	18e	<2	<2
A6	09 Apr 2024	832	18	38e	6e	<2
A6	16 Apr 2024	825	1	4e	<2	<2
A6	16 Apr 2024	825	12	2e	<2	<2
A6	16 Apr 2024	825	18	10e	4e	<2
A6	23 Apr 2024	822	1	<2	<2	<2
A6	23 Apr 2024	822	12	<2	2e	<2
A6	23 Apr 2024	822	18	18e	<2	<2
A7	02 Apr 2024	823	1	20e	<2	<2
A7	02 Apr 2024	823	12	48	6e	2e
A7	02 Apr 2024	823	18	22e	4e	<2
A7	09 Apr 2024	817	1	2e	<2	<2
A7	09 Apr 2024	817	12	6e	<2	<2
A7	09 Apr 2024	817	18	14e	2e	<2
A7	16 Apr 2024	808	1	<2	<2	<2
A7	16 Apr 2024	808	12	6e	4e	2e
A7	16 Apr 2024	808	18	34e	8e	2e
A7	23 Apr 2024	809	1	<2	<2	<2
A7	23 Apr 2024	809	12	<2	<2	<2
A7	23 Apr 2024	809	18	12e	<2	<2
C4	02 Apr 2024	1014	1	<2	<2	<2
C4	02 Apr 2024	1014	3	<2	<2	<2
C4	02 Apr 2024	1014	9	22e	4e	<2

Station	Date	Time	Depth	Total	Fecal	Enteric
C4	09 Apr 2024	944	1	<2	<2	<2
C4	09 Apr 2024	944	3	<2	<2	<2
C4	09 Apr 2024	944	9	<2	<2	<2
C4	16 Apr 2024	938	1	<2	<2	<2
C4	16 Apr 2024	938	3	<2	<2	<2
C4	16 Apr 2024	938	9	<2	<2	<2
C4	23 Apr 2024	926	1	<2	<2	<2
C4	23 Apr 2024	926	3	<2	<2	<2
C4	23 Apr 2024	926	9	<2	<2	<2
C5	02 Apr 2024	1002	1	2e	<2	<2
C5	02 Apr 2024	1002	3	<20	<2	<2
C5	02 Apr 2024	1002	9	6e	<2	<2
C5	09 Apr 2024	931	1	<2	<2	<2
C5	09 Apr 2024	931	3	<2	<2	<2
C5	09 Apr 2024	931	9	<2	<2	<2
C5	16 Apr 2024	928	1	<2	<2	<2
C5	16 Apr 2024	928	3	2e	<2	<2
C5	16 Apr 2024	928	9	6e	<2	<2
C5	23 Apr 2024	914	1	<2	<2	<2
C5	23 Apr 2024	914	3	<2	<2	<2
C5	23 Apr 2024	914	9	<2	<2	<2
C6	02 Apr 2024	932	1	<2	<2	<2
C6	02 Apr 2024	932	3	<2	<2	<2
C6	02 Apr 2024	932	9	<2	<2	<2
C6	09 Apr 2024	919	1	2e	2e	<2
C6	09 Apr 2024	919	3	<2	<2	<2
C6	09 Apr 2024	919	9	<2	<2	<2
C6	16 Apr 2024	916	1	<2	<2	<2
C6	16 Apr 2024	916	3	<2	<2	<2
C6	16 Apr 2024	916	9	<2	<2	<2
C6	23 Apr 2024	904	1	2e	<2	<2
C6	23 Apr 2024	904	3	<2	<2	<2
C6	23 Apr 2024	904	9	<2	<2	<2
C7	02 Apr 2024	858	1	6e	<2	<2
C7	02 Apr 2024	858	12	16e	2e	<2
C7	02 Apr 2024	858	18	20e	4e	<2
C7	09 Apr 2024	844	1	2e	<2	<2
C7	09 Apr 2024	844	12	8e	2e	2e
C7	09 Apr 2024	844	18	110	30e	<2
C7	16 Apr 2024	845	1	<2	<2	<2
C7	16 Apr 2024	845	12	<2	<2	<2
C7	16 Apr 2024	845	18	14e	2e	<2
C7	23 Apr 2024	834	1	<2	<2	<2
C7	23 Apr 2024	834	12	2e	<2	<2
C7	23 Apr 2024	834	18	2e	<2	<2

Station	Date	Time	Depth	Total	Fecal	Enteric
C8	02 Apr 2024	912	1	24e	8e	<2
C8	02 Apr 2024	912	12	42	8e	<2
C8	02 Apr 2024	912	18	38e	12e	4e
C8	09 Apr 2024	857	1	<2	<2	<2
C8	09 Apr 2024	857	12	12e	2e	2e
C8	09 Apr 2024	857	18	120	18e	<2
C8	16 Apr 2024	856	1	20e	2e	<2
C8	16 Apr 2024	856	12	<2	<2	<2
C8	16 Apr 2024	856	18	<2	<2	<2
C8	23 Apr 2024	845	1	<2	<2	<2
C8	23 Apr 2024	845	12	<2	<2	<2
C8	23 Apr 2024	845	18	2e	<2	2e

ns = not sampled

ND = no data

Table 3.9

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

Station	Date	Parameter	Value
A1	02 Apr 2024	Depth (m)	18
A1	02 Apr 2024	Arrive Time	802
A1	02 Apr 2024	Depart Time	809
A1	02 Apr 2024	Air Temp (C)	13.0
A1	02 Apr 2024	Weather	Clear
A1	02 Apr 2024	Visibility (mi)	7
A1	02 Apr 2024	Wind Speed (kts)	6.7
A1	02 Apr 2024	Wind Dir	E
A1	02 Apr 2024	Water Color	Green
A1	02 Apr 2024	Wave Height Low (ft)	2
A1	02 Apr 2024	Wave Period (sec)	10
A1	02 Apr 2024	Sea State	Calm
A1	02 Apr 2024	High Tide (ft)	4.32
A1	02 Apr 2024	High Tide Time	312
A1	02 Apr 2024	Low Tide (ft)	-0.09
A1	02 Apr 2024	Low Tide Time	1136
A1	02 Apr 2024	Comments	Kelp Debris
A1	09 Apr 2024	Depth (m)	19
A1	09 Apr 2024	Arrive Time	759
A1	09 Apr 2024	Depart Time	813
A1	09 Apr 2024	Air Temp (C)	13.1
A1	09 Apr 2024	Weather	Clear
A1	09 Apr 2024	Visibility (mi)	8
A1	09 Apr 2024	Wind Speed (kts)	6.4
A1	09 Apr 2024	Wind Dir	E
A1	09 Apr 2024	Water Color	Green
A1	09 Apr 2024	Wave Height Low (ft)	3
A1	09 Apr 2024	Wave Period (sec)	6
A1	09 Apr 2024	Sea State	Calm
A1	09 Apr 2024	High Tide (ft)	6.06
A1	09 Apr 2024	High Tide Time	2218
A1	09 Apr 2024	Low Tide (ft)	-1
A1	09 Apr 2024	Low Tide Time	418
A1	09 Apr 2024	Comments	Wiggly O2 showing up again today. Better on recast but still a little wiggle. Using bottles and data from cast 2.; Kelp Debris
A1	16 Apr 2024	Depth (m)	18
A1	16 Apr 2024	Arrive Time	747
A1	16 Apr 2024	Depart Time	751
A1	16 Apr 2024	Air Temp (C)	13.9
A1	16 Apr 2024	Weather	Clear
A1	16 Apr 2024	Visibility (mi)	11
A1	16 Apr 2024	Wind Speed (kts)	5.9
A1	16 Apr 2024	Wind Dir	E
A1	16 Apr 2024	Water Color	Blueish-Green
A1	16 Apr 2024	Wave Height Low (ft)	5.2
A1	16 Apr 2024	Wave Period (sec)	10
A1	16 Apr 2024	Sea State	Confused Swell
A1	16 Apr 2024	High Tide (ft)	3.93
A1	16 Apr 2024	High Tide Time	406
A1	16 Apr 2024	Low Tide (ft)	0.05
A1	16 Apr 2024	Low Tide Time	1154
A1	16 Apr 2024	Comments	
A1	23 Apr 2024	Depth (m)	18

Station	Date	Parameter	Value
A1	23 Apr 2024	Arrive Time	748
A1	23 Apr 2024	Depart Time	804
A1	23 Apr 2024	Air Temp (C)	14.7
A1	23 Apr 2024	Weather	Overcast
A1	23 Apr 2024	Visibility (mi)	7
A1	23 Apr 2024	Wind Speed (kts)	2.8
A1	23 Apr 2024	Wind Dir	S
A1	23 Apr 2024	Water Color	Blueish-Green
A1	23 Apr 2024	Wave Height Low (ft)	2
A1	23 Apr 2024	Wave Period (sec)	11
A1	23 Apr 2024	Sea State	Calm
A1	23 Apr 2024	High Tide (ft)	5.33
A1	23 Apr 2024	High Tide Time	2124
A1	23 Apr 2024	Low Tide (ft)	-0.19
A1	23 Apr 2024	Low Tide Time	336
A1	23 Apr 2024	Comments	1st cast no 18m bin. Bacti taken from cast 1; ctd from cast 2.
A6	02 Apr 2024	Depth (m)	19
A6	02 Apr 2024	Arrive Time	843
A6	02 Apr 2024	Depart Time	848
A6	02 Apr 2024	Air Temp (C)	14.0
A6	02 Apr 2024	Weather	Clear
A6	02 Apr 2024	Visibility (mi)	7
A6	02 Apr 2024	Wind Speed (kts)	4.0
A6	02 Apr 2024	Wind Dir	E
A6	02 Apr 2024	Water Color	Green
A6	02 Apr 2024	Wave Height Low (ft)	2
A6	02 Apr 2024	Wave Period (sec)	10
A6	02 Apr 2024	Sea State	Calm
A6	02 Apr 2024	High Tide (ft)	4.32
A6	02 Apr 2024	High Tide Time	312
A6	02 Apr 2024	Low Tide (ft)	-0.09
A6	02 Apr 2024	Low Tide Time	1136
A6	02 Apr 2024	Comments	Multiple failed attempts to get bottom bin failed due to low tide.
A6	09 Apr 2024	Depth (m)	20
A6	09 Apr 2024	Arrive Time	832
A6	09 Apr 2024	Depart Time	842
A6	09 Apr 2024	Air Temp (C)	14.3
A6	09 Apr 2024	Weather	Clear
A6	09 Apr 2024	Visibility (mi)	8
A6	09 Apr 2024	Wind Speed (kts)	0.5
A6	09 Apr 2024	Wind Dir	N
A6	09 Apr 2024	Water Color	Green
A6	09 Apr 2024	Wave Height Low (ft)	3
A6	09 Apr 2024	Wave Period (sec)	6
A6	09 Apr 2024	Sea State	Calm
A6	09 Apr 2024	High Tide (ft)	6.06
A6	09 Apr 2024	High Tide Time	2218
A6	09 Apr 2024	Low Tide (ft)	-1
A6	09 Apr 2024	Low Tide Time	418
A6	09 Apr 2024	Comments	
A6	16 Apr 2024	Depth (m)	19
A6	16 Apr 2024	Arrive Time	825
A6	16 Apr 2024	Depart Time	827
A6	16 Apr 2024	Air Temp (C)	14.7
A6	16 Apr 2024	Weather	Clear
A6	16 Apr 2024	Visibility (mi)	16
A6	16 Apr 2024	Wind Speed (kts)	1.8
A6	16 Apr 2024	Wind Dir	SE

Station	Date	Parameter	Value
A6	16 Apr 2024	Water Color	Blueish-Green
A6	16 Apr 2024	Wave Height Low (ft)	4
A6	16 Apr 2024	Wave Period (sec)	12
A6	16 Apr 2024	Sea State	Light Chop
A6	16 Apr 2024	High Tide (ft)	3.93
A6	16 Apr 2024	High Tide Time	406
A6	16 Apr 2024	Low Tide (ft)	0.05
A6	16 Apr 2024	Low Tide Time	1154
A6	16 Apr 2024	Comments	
A6	23 Apr 2024	Depth (m)	18
A6	23 Apr 2024	Arrive Time	822
A6	23 Apr 2024	Depart Time	826
A6	23 Apr 2024	Air Temp (C)	14.6
A6	23 Apr 2024	Weather	Overcast
A6	23 Apr 2024	Visibility (mi)	7
A6	23 Apr 2024	Wind Speed (kts)	4.7
A6	23 Apr 2024	Wind Dir	SW
A6	23 Apr 2024	Water Color	Blueish-Green
A6	23 Apr 2024	Wave Height Low (ft)	2
A6	23 Apr 2024	Wave Period (sec)	11
A6	23 Apr 2024	Sea State	Calm
A6	23 Apr 2024	High Tide (ft)	5.33
A6	23 Apr 2024	High Tide Time	2124
A6	23 Apr 2024	Low Tide (ft)	-0.19
A6	23 Apr 2024	Low Tide Time	336
A6	23 Apr 2024	Comments	
A7	02 Apr 2024	Depth (m)	18
A7	02 Apr 2024	Arrive Time	823
A7	02 Apr 2024	Depart Time	832
A7	02 Apr 2024	Air Temp (C)	13.7
A7	02 Apr 2024	Weather	Clear
A7	02 Apr 2024	Visibility (mi)	7
A7	02 Apr 2024	Wind Speed (kts)	4.7
A7	02 Apr 2024	Wind Dir	E
A7	02 Apr 2024	Water Color	Green
A7	02 Apr 2024	Wave Height Low (ft)	2
A7	02 Apr 2024	Wave Period (sec)	10
A7	02 Apr 2024	Sea State	Calm
A7	02 Apr 2024	High Tide (ft)	4.32
A7	02 Apr 2024	High Tide Time	312
A7	02 Apr 2024	Low Tide (ft)	-0.09
A7	02 Apr 2024	Low Tide Time	1136
A7	02 Apr 2024	Comments	faint sewage-like odor. Concern about bleeder attempted clear with wire; no resistance felt.
A7	09 Apr 2024	Depth (m)	19
A7	09 Apr 2024	Arrive Time	817
A7	09 Apr 2024	Depart Time	826
A7	09 Apr 2024	Air Temp (C)	13.3
A7	09 Apr 2024	Weather	Clear
A7	09 Apr 2024	Visibility (mi)	8
A7	09 Apr 2024	Wind Speed (kts)	7.4
A7	09 Apr 2024	Wind Dir	N
A7	09 Apr 2024	Water Color	Green
A7	09 Apr 2024	Wave Height Low (ft)	3
A7	09 Apr 2024	Wave Period (sec)	6
A7	09 Apr 2024	Sea State	Calm
A7	09 Apr 2024	High Tide (ft)	6.06
A7	09 Apr 2024	High Tide Time	2218

Station	Date	Parameter	Value
A7	09 Apr 2024	Low Tide (ft)	-1
A7	09 Apr 2024	Low Tide Time	418
A7	09 Apr 2024	Comments	Kelp Debris
A7	16 Apr 2024	Depth (m)	18
A7	16 Apr 2024	Arrive Time	808
A7	16 Apr 2024	Depart Time	814
A7	16 Apr 2024	Air Temp (C)	14.4
A7	16 Apr 2024	Weather	Clear
A7	16 Apr 2024	Visibility (mi)	15
A7	16 Apr 2024	Wind Speed (kts)	3.9
A7	16 Apr 2024	Wind Dir	E
A7	16 Apr 2024	Water Color	Blueish-Green
A7	16 Apr 2024	Wave Height Low (ft)	4
A7	16 Apr 2024	Wave Period (sec)	12
A7	16 Apr 2024	Sea State	Light Chop
A7	16 Apr 2024	High Tide (ft)	3.93
A7	16 Apr 2024	High Tide Time	406
A7	16 Apr 2024	Low Tide (ft)	0.05
A7	16 Apr 2024	Low Tide Time	1154
A7	16 Apr 2024	Comments	
A7	23 Apr 2024	Depth (m)	20
A7	23 Apr 2024	Arrive Time	809
A7	23 Apr 2024	Depart Time	813
A7	23 Apr 2024	Air Temp (C)	14.7
A7	23 Apr 2024	Weather	Overcast
A7	23 Apr 2024	Visibility (mi)	7
A7	23 Apr 2024	Wind Speed (kts)	3.2
A7	23 Apr 2024	Wind Dir	SW
A7	23 Apr 2024	Water Color	Blueish-Green
A7	23 Apr 2024	Wave Height Low (ft)	2
A7	23 Apr 2024	Wave Period (sec)	11
A7	23 Apr 2024	Sea State	Calm
A7	23 Apr 2024	High Tide (ft)	5.33
A7	23 Apr 2024	High Tide Time	2124
A7	23 Apr 2024	Low Tide (ft)	-0.19
A7	23 Apr 2024	Low Tide Time	336
A7	23 Apr 2024	Comments	
C4	02 Apr 2024	Depth (m)	9
C4	02 Apr 2024	Arrive Time	1014
C4	02 Apr 2024	Depart Time	1022
C4	02 Apr 2024	Air Temp (C)	14.3
C4	02 Apr 2024	Weather	Clear
C4	02 Apr 2024	Visibility (mi)	7
C4	02 Apr 2024	Wind Speed (kts)	2.5
C4	02 Apr 2024	Wind Dir	SE
C4	02 Apr 2024	Water Color	Green
C4	02 Apr 2024	Wave Height Low (ft)	2
C4	02 Apr 2024	Wave Period (sec)	10
C4	02 Apr 2024	Sea State	Calm
C4	02 Apr 2024	High Tide (ft)	4.32
C4	02 Apr 2024	High Tide Time	312
C4	02 Apr 2024	Low Tide (ft)	-0.09
C4	02 Apr 2024	Low Tide Time	1136
C4	02 Apr 2024	Comments	
C4	09 Apr 2024	Depth (m)	12
C4	09 Apr 2024	Arrive Time	944
C4	09 Apr 2024	Depart Time	1031

Station	Date	Parameter	Value
C4	09 Apr 2024	Air Temp (C)	14.7
C4	09 Apr 2024	Weather	Clear
C4	09 Apr 2024	Visibility (mi)	8
C4	09 Apr 2024	Wind Speed (kts)	3.9
C4	09 Apr 2024	Wind Dir	W
C4	09 Apr 2024	Water Color	Green
C4	09 Apr 2024	Wave Height Low (ft)	3
C4	09 Apr 2024	Wave Period (sec)	6
C4	09 Apr 2024	Sea State	Calm
C4	09 Apr 2024	High Tide (ft)	6.06
C4	09 Apr 2024	High Tide Time	2218
C4	09 Apr 2024	Low Tide (ft)	-1
C4	09 Apr 2024	Low Tide Time	418
C4	09 Apr 2024	Comments	
C4	16 Apr 2024	Depth (m)	11
C4	16 Apr 2024	Arrive Time	938
C4	16 Apr 2024	Depart Time	940
C4	16 Apr 2024	Air Temp (C)	14.7
C4	16 Apr 2024	Weather	Clear
C4	16 Apr 2024	Visibility (mi)	16
C4	16 Apr 2024	Wind Speed (kts)	0.8
C4	16 Apr 2024	Wind Dir	W
C4	16 Apr 2024	Water Color	Greenish-Brown
C4	16 Apr 2024	Wave Height Low (ft)	3
C4	16 Apr 2024	Wave Period (sec)	12
C4	16 Apr 2024	Sea State	Calm
C4	16 Apr 2024	High Tide (ft)	3.93
C4	16 Apr 2024	High Tide Time	406
C4	16 Apr 2024	Low Tide (ft)	0.05
C4	16 Apr 2024	Low Tide Time	1154
C4	16 Apr 2024	Comments	
C4	23 Apr 2024	Depth (m)	11
C4	23 Apr 2024	Arrive Time	926
C4	23 Apr 2024	Depart Time	931
C4	23 Apr 2024	Air Temp (C)	14.3
C4	23 Apr 2024	Weather	Overcast
C4	23 Apr 2024	Visibility (mi)	7
C4	23 Apr 2024	Wind Speed (kts)	3.1
C4	23 Apr 2024	Wind Dir	S
C4	23 Apr 2024	Water Color	Green
C4	23 Apr 2024	Wave Height Low (ft)	2
C4	23 Apr 2024	Wave Period (sec)	11
C4	23 Apr 2024	Sea State	Calm
C4	23 Apr 2024	High Tide (ft)	5.33
C4	23 Apr 2024	High Tide Time	2124
C4	23 Apr 2024	Low Tide (ft)	-0.19
C4	23 Apr 2024	Low Tide Time	336
C4	23 Apr 2024	Comments	
C5	02 Apr 2024	Depth (m)	10
C5	02 Apr 2024	Arrive Time	1002
C5	02 Apr 2024	Depart Time	1013
C5	02 Apr 2024	Air Temp (C)	14.6
C5	02 Apr 2024	Weather	Clear
C5	02 Apr 2024	Visibility (mi)	7
C5	02 Apr 2024	Wind Speed (kts)	4.0
C5	02 Apr 2024	Wind Dir	S
C5	02 Apr 2024	Water Color	Green
C5	02 Apr 2024	Wave Height Low (ft)	2

Station	Date	Parameter	Value
C5	02 Apr 2024	Wave Period (sec)	10
C5	02 Apr 2024	Sea State	Calm
C5	02 Apr 2024	High Tide (ft)	4.32
C5	02 Apr 2024	High Tide Time	312
C5	02 Apr 2024	Low Tide (ft)	-0.09
C5	02 Apr 2024	Low Tide Time	1136
C5	02 Apr 2024	Comments	
C5	09 Apr 2024	Depth (m)	10
C5	09 Apr 2024	Arrive Time	931
C5	09 Apr 2024	Depart Time	939
C5	09 Apr 2024	Air Temp (C)	14.9
C5	09 Apr 2024	Weather	Clear
C5	09 Apr 2024	Visibility (mi)	8
C5	09 Apr 2024	Wind Speed (kts)	6.6
C5	09 Apr 2024	Wind Dir	W
C5	09 Apr 2024	Water Color	Green
C5	09 Apr 2024	Wave Height Low (ft)	3
C5	09 Apr 2024	Wave Period (sec)	6
C5	09 Apr 2024	Sea State	Calm
C5	09 Apr 2024	High Tide (ft)	6.06
C5	09 Apr 2024	High Tide Time	2218
C5	09 Apr 2024	Low Tide (ft)	-1
C5	09 Apr 2024	Low Tide Time	418
C5	09 Apr 2024	Comments	
C5	16 Apr 2024	Depth (m)	11
C5	16 Apr 2024	Arrive Time	928
C5	16 Apr 2024	Depart Time	930
C5	16 Apr 2024	Air Temp (C)	14.8
C5	16 Apr 2024	Weather	Clear
C5	16 Apr 2024	Visibility (mi)	16
C5	16 Apr 2024	Wind Speed (kts)	1.1
C5	16 Apr 2024	Wind Dir	SW
C5	16 Apr 2024	Water Color	Greenish-Brown
C5	16 Apr 2024	Wave Height Low (ft)	3
C5	16 Apr 2024	Wave Period (sec)	12
C5	16 Apr 2024	Sea State	Calm
C5	16 Apr 2024	High Tide (ft)	3.93
C5	16 Apr 2024	High Tide Time	406
C5	16 Apr 2024	Low Tide (ft)	0.05
C5	16 Apr 2024	Low Tide Time	1154
C5	16 Apr 2024	Comments	
C5	23 Apr 2024	Depth (m)	11
C5	23 Apr 2024	Arrive Time	914
C5	23 Apr 2024	Depart Time	919
C5	23 Apr 2024	Air Temp (C)	14.3
C5	23 Apr 2024	Weather	Overcast
C5	23 Apr 2024	Visibility (mi)	7
C5	23 Apr 2024	Wind Speed (kts)	11.2
C5	23 Apr 2024	Wind Dir	SW
C5	23 Apr 2024	Water Color	Green
C5	23 Apr 2024	Wave Height Low (ft)	2
C5	23 Apr 2024	Wave Period (sec)	11
C5	23 Apr 2024	Sea State	Calm
C5	23 Apr 2024	High Tide (ft)	5.33
C5	23 Apr 2024	High Tide Time	2124
C5	23 Apr 2024	Low Tide (ft)	-0.19
C5	23 Apr 2024	Low Tide Time	336
C5	23 Apr 2024	Comments	

Station	Date	Parameter	Value
C6	02 Apr 2024	Depth (m)	9
C6	02 Apr 2024	Arrive Time	932
C6	02 Apr 2024	Depart Time	1000
C6	02 Apr 2024	Air Temp (C)	15.1
C6	02 Apr 2024	Weather	Clear
C6	02 Apr 2024	Visibility (mi)	7
C6	02 Apr 2024	Wind Speed (kts)	4.9
C6	02 Apr 2024	Wind Dir	SE
C6	02 Apr 2024	Water Color	Green
C6	02 Apr 2024	Wave Height Low (ft)	2
C6	02 Apr 2024	Wave Period (sec)	10
C6	02 Apr 2024	Sea State	Calm
C6	02 Apr 2024	High Tide (ft)	4.32
C6	02 Apr 2024	High Tide Time	312
C6	02 Apr 2024	Low Tide (ft)	-0.09
C6	02 Apr 2024	Low Tide Time	1136
C6	02 Apr 2024	Comments	Use C6 for CTD and C6_1 for btl data. Strange noise in O2 signal.
C6	09 Apr 2024	Depth (m)	9
C6	09 Apr 2024	Arrive Time	919
C6	09 Apr 2024	Depart Time	925
C6	09 Apr 2024	Air Temp (C)	15
C6	09 Apr 2024	Weather	Clear
C6	09 Apr 2024	Visibility (mi)	8
C6	09 Apr 2024	Wind Speed (kts)	2.6
C6	09 Apr 2024	Wind Dir	W
C6	09 Apr 2024	Water Color	Green
C6	09 Apr 2024	Wave Height Low (ft)	3
C6	09 Apr 2024	Wave Period (sec)	6
C6	09 Apr 2024	Sea State	Calm
C6	09 Apr 2024	High Tide (ft)	6.06
C6	09 Apr 2024	High Tide Time	2218
C6	09 Apr 2024	Low Tide (ft)	-1
C6	09 Apr 2024	Low Tide Time	418
C6	09 Apr 2024	Comments	
C6	16 Apr 2024	Depth (m)	9
C6	16 Apr 2024	Arrive Time	916
C6	16 Apr 2024	Depart Time	918
C6	16 Apr 2024	Air Temp (C)	14.7
C6	16 Apr 2024	Weather	Clear
C6	16 Apr 2024	Visibility (mi)	16
C6	16 Apr 2024	Wind Speed (kts)	3
C6	16 Apr 2024	Wind Dir	N
C6	16 Apr 2024	Water Color	Greenish-Brown
C6	16 Apr 2024	Wave Height Low (ft)	3
C6	16 Apr 2024	Wave Period (sec)	12
C6	16 Apr 2024	Sea State	Calm
C6	16 Apr 2024	High Tide (ft)	3.93
C6	16 Apr 2024	High Tide Time	406
C6	16 Apr 2024	Low Tide (ft)	0.05
C6	16 Apr 2024	Low Tide Time	1154
C6	16 Apr 2024	Comments	
C6	23 Apr 2024	Depth (m)	9
C6	23 Apr 2024	Arrive Time	904
C6	23 Apr 2024	Depart Time	912
C6	23 Apr 2024	Air Temp (C)	14.2
C6	23 Apr 2024	Weather	Overcast

Station	Date	Parameter	Value
C6	23 Apr 2024	Visibility (mi)	7
C6	23 Apr 2024	Wind Speed (kts)	4.9
C6	23 Apr 2024	Wind Dir	SW
C6	23 Apr 2024	Water Color	Green
C6	23 Apr 2024	Wave Height Low (ft)	2
C6	23 Apr 2024	Wave Period (sec)	11
C6	23 Apr 2024	Sea State	Calm
C6	23 Apr 2024	High Tide (ft)	5.33
C6	23 Apr 2024	High Tide Time	2124
C6	23 Apr 2024	Low Tide (ft)	-0.19
C6	23 Apr 2024	Low Tide Time	336
C6	23 Apr 2024	Comments	
C7	02 Apr 2024	Depth (m)	18
C7	02 Apr 2024	Arrive Time	858
C7	02 Apr 2024	Depart Time	904
C7	02 Apr 2024	Air Temp (C)	14.5
C7	02 Apr 2024	Weather	Clear
C7	02 Apr 2024	Visibility (mi)	7
C7	02 Apr 2024	Wind Speed (kts)	3.2
C7	02 Apr 2024	Wind Dir	SE
C7	02 Apr 2024	Water Color	Green
C7	02 Apr 2024	Wave Height Low (ft)	2
C7	02 Apr 2024	Wave Period (sec)	10
C7	02 Apr 2024	Sea State	Calm
C7	02 Apr 2024	High Tide (ft)	4.32
C7	02 Apr 2024	High Tide Time	312
C7	02 Apr 2024	Low Tide (ft)	-0.09
C7	02 Apr 2024	Low Tide Time	1136
C7	02 Apr 2024	Comments	18m depth bin unattainable due to low tide.
C7	09 Apr 2024	Depth (m)	18
C7	09 Apr 2024	Arrive Time	844
C7	09 Apr 2024	Depart Time	851
C7	09 Apr 2024	Air Temp (C)	14.6
C7	09 Apr 2024	Weather	Clear
C7	09 Apr 2024	Visibility (mi)	8
C7	09 Apr 2024	Wind Speed (kts)	6.8
C7	09 Apr 2024	Wind Dir	N
C7	09 Apr 2024	Water Color	Green
C7	09 Apr 2024	Wave Height Low (ft)	3
C7	09 Apr 2024	Wave Period (sec)	6
C7	09 Apr 2024	Sea State	Calm
C7	09 Apr 2024	High Tide (ft)	6.06
C7	09 Apr 2024	High Tide Time	2218
C7	09 Apr 2024	Low Tide (ft)	-1
C7	09 Apr 2024	Low Tide Time	418
C7	09 Apr 2024	Comments	O2 a tiny bit wobbly at depth. May benefit from outlier removal.
C7	16 Apr 2024	Depth (m)	19
C7	16 Apr 2024	Arrive Time	845
C7	16 Apr 2024	Depart Time	847
C7	16 Apr 2024	Air Temp (C)	14.5
C7	16 Apr 2024	Weather	Clear
C7	16 Apr 2024	Visibility (mi)	16
C7	16 Apr 2024	Wind Speed (kts)	1.1
C7	16 Apr 2024	Wind Dir	NW
C7	16 Apr 2024	Water Color	Green
C7	16 Apr 2024	Wave Height Low (ft)	3
C7	16 Apr 2024	Wave Period (sec)	12
C7	16 Apr 2024	Sea State	Calm

Station	Date	Parameter	Value
C7	16 Apr 2024	High Tide (ft)	3.93
C7	16 Apr 2024	High Tide Time	406
C7	16 Apr 2024	Low Tide (ft)	0.05
C7	16 Apr 2024	Low Tide Time	1154
C7	16 Apr 2024	Comments	
C7	23 Apr 2024	Depth (m)	19
C7	23 Apr 2024	Arrive Time	834
C7	23 Apr 2024	Depart Time	839
C7	23 Apr 2024	Air Temp (C)	14.4
C7	23 Apr 2024	Weather	Overcast
C7	23 Apr 2024	Visibility (mi)	7
C7	23 Apr 2024	Wind Speed (kts)	5.3
C7	23 Apr 2024	Wind Dir	SW
C7	23 Apr 2024	Water Color	Green
C7	23 Apr 2024	Wave Height Low (ft)	2
C7	23 Apr 2024	Wave Period (sec)	11
C7	23 Apr 2024	Sea State	Calm
C7	23 Apr 2024	High Tide (ft)	5.33
C7	23 Apr 2024	High Tide Time	2124
C7	23 Apr 2024	Low Tide (ft)	-0.19
C7	23 Apr 2024	Low Tide Time	336
C7	23 Apr 2024	Comments	
C8	02 Apr 2024	Depth (m)	19
C8	02 Apr 2024	Arrive Time	912
C8	02 Apr 2024	Depart Time	917
C8	02 Apr 2024	Air Temp (C)	15.1
C8	02 Apr 2024	Weather	Clear
C8	02 Apr 2024	Visibility (mi)	7
C8	02 Apr 2024	Wind Speed (kts)	0.0
C8	02 Apr 2024	Wind Dir	NW
C8	02 Apr 2024	Water Color	Green
C8	02 Apr 2024	Wave Height Low (ft)	2
C8	02 Apr 2024	Wave Period (sec)	10
C8	02 Apr 2024	Sea State	Calm
C8	02 Apr 2024	High Tide (ft)	4.32
C8	02 Apr 2024	High Tide Time	312
C8	02 Apr 2024	Low Tide (ft)	-0.09
C8	02 Apr 2024	Low Tide Time	1136
C8	02 Apr 2024	Comments	Kelp Debris
C8	09 Apr 2024	Depth (m)	19
C8	09 Apr 2024	Arrive Time	857
C8	09 Apr 2024	Depart Time	907
C8	09 Apr 2024	Air Temp (C)	14.4
C8	09 Apr 2024	Weather	Clear
C8	09 Apr 2024	Visibility (mi)	8
C8	09 Apr 2024	Wind Speed (kts)	9.5
C8	09 Apr 2024	Wind Dir	N
C8	09 Apr 2024	Water Color	Green
C8	09 Apr 2024	Wave Height Low (ft)	3
C8	09 Apr 2024	Wave Period (sec)	6
C8	09 Apr 2024	Sea State	Calm
C8	09 Apr 2024	High Tide (ft)	6.06
C8	09 Apr 2024	High Tide Time	2218
C8	09 Apr 2024	Low Tide (ft)	-1
C8	09 Apr 2024	Low Tide Time	418
C8	09 Apr 2024	Comments	
C8	16 Apr 2024	Depth (m)	19

Station	Date	Parameter	Value
C8	16 Apr 2024	Arrive Time	856
C8	16 Apr 2024	Depart Time	858
C8	16 Apr 2024	Air Temp (C)	14.6
C8	16 Apr 2024	Weather	Clear
C8	16 Apr 2024	Visibility (mi)	16
C8	16 Apr 2024	Wind Speed (kts)	1.3
C8	16 Apr 2024	Wind Dir	NW
C8	16 Apr 2024	Water Color	Greenish-Brown
C8	16 Apr 2024	Wave Height Low (ft)	3
C8	16 Apr 2024	Wave Period (sec)	12
C8	16 Apr 2024	Sea State	Calm
C8	16 Apr 2024	High Tide (ft)	3.93
C8	16 Apr 2024	High Tide Time	406
C8	16 Apr 2024	Low Tide (ft)	0.05
C8	16 Apr 2024	Low Tide Time	1154
C8	16 Apr 2024	Comments	
C8	23 Apr 2024	Depth (m)	20
C8	23 Apr 2024	Arrive Time	845
C8	23 Apr 2024	Depart Time	849
C8	23 Apr 2024	Air Temp (C)	14.5
C8	23 Apr 2024	Weather	Overcast
C8	23 Apr 2024	Visibility (mi)	7
C8	23 Apr 2024	Wind Speed (kts)	8.1
C8	23 Apr 2024	Wind Dir	SW
C8	23 Apr 2024	Water Color	Green
C8	23 Apr 2024	Wave Height Low (ft)	2
C8	23 Apr 2024	Wave Period (sec)	11
C8	23 Apr 2024	Sea State	Calm
C8	23 Apr 2024	High Tide (ft)	5.33
C8	23 Apr 2024	High Tide Time	2124
C8	23 Apr 2024	Low Tide (ft)	-0.19
C8	23 Apr 2024	Low Tide Time	336
C8	23 Apr 2024	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 (s-t)	Chlor (µg/L)
A1	02 Apr 2024	1	14.87	75.91	8.5	32.97	8.1	24.4	2.24
A1	02 Apr 2024	2	14.85	79.32	8.5	32.98	8.1	24.4	2.51
A1	02 Apr 2024	3	14.79	81.47	8.5	33.04	8.1	24.5	3.46
A1	02 Apr 2024	4	14.74	83.56	8.5	33.09	8.1	24.6	3.72
A1	02 Apr 2024	5	14.71	85.47	8.5	33.11	8.1	24.6	4.06
A1	02 Apr 2024	6	14.70	85.92	8.5	33.12	8.1	24.6	3.73
A1	02 Apr 2024	7	14.70	86.71	8.4	33.12	8.1	24.6	3.82
A1	02 Apr 2024	8	14.69	87.50	8.4	33.13	8.1	24.6	3.62
A1	02 Apr 2024	9	14.69	87.54	8.4	33.13	8.1	24.6	3.82
A1	02 Apr 2024	10	14.70	87.86	8.5	33.13	8.1	24.6	3.55
A1	02 Apr 2024	11	14.69	87.88	8.4	33.13	8.1	24.6	3.46
A1	02 Apr 2024	12	14.69	88.10	8.4	33.14	8.1	24.6	3.83
A1	02 Apr 2024	13	14.69	88.73	8.4	33.14	8.1	24.6	3.65
A1	02 Apr 2024	14	14.69	88.79	8.3	33.14	8.1	24.6	3.50
A1	02 Apr 2024	15	14.68	88.99	8.4	33.15	8.1	24.6	3.55
A1	02 Apr 2024	16	14.67	89.29	8.3	33.15	8.1	24.6	3.86
A1	02 Apr 2024	17	14.49	89.54	8.1	33.18	8.1	24.7	3.07
A1	02 Apr 2024	18	14.25	90.19	8.1	33.20	8.0	24.7	2.29
A1	09 Apr 2024	1	14.47	90.92	7.9	33.24	8.3	24.7	1.03
A1	09 Apr 2024	2	14.47	89.48	7.9	33.24	8.3	24.7	1.06
A1	09 Apr 2024	3	14.40	90.83	7.8	33.26	8.2	24.8	1.23
A1	09 Apr 2024	4	14.22	91.65	7.4	33.29	8.2	24.8	1.39
A1	09 Apr 2024	5	13.73	92.15	7.0	33.34	8.2	25.0	1.22
A1	09 Apr 2024	6	13.36	92.91	6.7	33.37	8.1	25.1	1.21
A1	09 Apr 2024	7	12.85	93.43	6.2	33.43	8.1	25.2	1.15
A1	09 Apr 2024	8	12.47	94.51	5.9	33.47	8.0	25.3	0.94
A1	09 Apr 2024	9	12.28	95.38	5.7	33.48	8.0	25.4	0.77
A1	09 Apr 2024	10	12.12	95.52	5.5	33.50	8.0	25.4	0.77
A1	09 Apr 2024	11	11.75	94.73	5.3	33.55	7.9	25.5	0.56
A1	09 Apr 2024	12	11.62	95.06	5.0	33.56	7.9	25.5	0.46
A1	09 Apr 2024	13	11.46	96.15	4.9	33.58	7.9	25.6	0.43
A1	09 Apr 2024	14	11.40	96.72	4.9	33.59	7.8	25.6	0.41
A1	09 Apr 2024	15	11.37	96.79	4.8	33.60	7.8	25.6	0.32
A1	09 Apr 2024	16	11.36	96.83	4.8	33.60	7.8	25.6	0.31
A1	09 Apr 2024	17	11.34	96.71	4.8	33.60	7.8	25.6	0.29
A1	09 Apr 2024	18	11.31	96.56	5.0	33.61	7.8	25.6	0.29
A1	09 Apr 2024	19	11.33	96.62	4.7	33.61	7.8	25.6	0.29
A1	16 Apr 2024	1	14.82	88.40	8.1	33.33	8.1	24.7	1.47
A1	16 Apr 2024	2	14.73	88.27	8.0	33.34	8.1	24.8	1.55
A1	16 Apr 2024	3	14.67	88.26	8.0	33.34	8.1	24.8	1.82
A1	16 Apr 2024	4	14.47	88.10	7.8	33.36	8.1	24.8	1.88
A1	16 Apr 2024	5	13.91	88.57	7.6	33.40	8.1	25.0	2.01
A1	16 Apr 2024	6	13.77	90.84	7.4	33.40	8.1	25.0	2.02
A1	16 Apr 2024	7	13.61	92.47	7.2	33.41	8.0	25.0	1.83
A1	16 Apr 2024	8	13.46	93.19	6.9	33.43	8.0	25.1	1.63
A1	16 Apr 2024	9	13.08	93.35	6.7	33.45	8.0	25.2	1.80
A1	16 Apr 2024	10	13.19	93.53	6.5	33.44	8.0	25.1	1.57
A1	16 Apr 2024	11	12.93	94.00	6.4	33.47	8.0	25.2	1.35
A1	16 Apr 2024	12	12.73	94.23	6.2	33.48	7.9	25.3	1.32
A1	16 Apr 2024	13	12.56	94.39	6.0	33.50	7.9	25.3	1.20
A1	16 Apr 2024	14	12.35	94.15	5.8	33.50	7.9	25.4	1.33
A1	16 Apr 2024	15	12.25	94.06	5.7	33.51	7.9	25.4	1.25
A1	16 Apr 2024	16	12.20	91.64	5.6	33.52	7.9	25.4	1.36

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
A1	16 Apr 2024	17	12.08	93.18	5.3	33.53	7.9	25.4	1.18
A1	16 Apr 2024	18	11.69	90.81	5.0	33.57	7.9	25.5	1.62
A1	16 Apr 2024	19	11.60	87.59	4.9	33.58	7.9	25.6	1.54
A1	23 Apr 2024	1	15.31	85.24	8.2	33.33	8.2	24.6	3.10
A1	23 Apr 2024	2	15.27	84.53	8.1	33.34	8.2	24.6	3.22
A1	23 Apr 2024	3	14.79	84.36	7.6	33.39	8.1	24.8	3.25
A1	23 Apr 2024	4	14.34	84.74	7.2	33.41	8.1	24.9	3.04
A1	23 Apr 2024	5	13.92	85.36	6.8	33.43	8.1	25.0	2.92
A1	23 Apr 2024	6	13.31	86.95	6.3	33.47	8.0	25.1	2.46
A1	23 Apr 2024	7	12.96	88.01	6.0	33.47	8.0	25.2	2.21
A1	23 Apr 2024	8	12.72	89.51	5.8	33.48	8.0	25.3	2.11
A1	23 Apr 2024	9	12.57	90.80	5.6	33.49	7.9	25.3	2.02
A1	23 Apr 2024	10	12.37	91.47	5.4	33.50	7.9	25.4	1.87
A1	23 Apr 2024	11	12.29	92.06	5.3	33.51	7.9	25.4	1.74
A1	23 Apr 2024	12	12.21	92.72	5.2	33.52	7.9	25.4	1.51
A1	23 Apr 2024	13	12.00	93.20	5.0	33.55	7.9	25.5	1.35
A1	23 Apr 2024	14	11.53	93.52	4.7	33.60	7.9	25.6	1.12
A1	23 Apr 2024	15	11.42	94.35	4.5	33.60	7.8	25.6	0.86
A1	23 Apr 2024	16	11.39	94.89	4.4	33.60	7.8	25.6	0.85
A1	23 Apr 2024	17	11.35	95.19	4.4	33.61	7.8	25.6	0.81
A1	23 Apr 2024	18	11.30	95.29	4.3	33.62	7.8	25.6	0.70
A1	23 Apr 2024	19	11.25	95.28	4.2	33.63	7.8	25.7	0.78
A6	02 Apr 2024	1	14.60	81.54	8.7	33.09	7.9	24.6	2.67
A6	02 Apr 2024	2	14.60	81.37	8.7	33.09	7.9	24.6	2.90
A6	02 Apr 2024	3	14.60	81.27	8.7	33.09	7.9	24.6	3.23
A6	02 Apr 2024	4	14.59	81.74	8.7	33.09	7.9	24.6	3.74
A6	02 Apr 2024	5	14.57	81.36	8.7	33.09	7.9	24.6	4.49
A6	02 Apr 2024	6	14.56	81.74	8.7	33.09	7.9	24.6	4.88
A6	02 Apr 2024	7	14.56	81.83	8.7	33.09	7.9	24.6	4.61
A6	02 Apr 2024	8	14.53	82.05	8.5	33.11	7.9	24.6	4.34
A6	02 Apr 2024	9	14.47	82.82	8.4	33.14	7.8	24.7	3.94
A6	02 Apr 2024	10	14.44	83.79	8.3	33.15	7.8	24.7	3.66
A6	02 Apr 2024	11	14.45	85.30	8.3	33.15	7.8	24.7	3.51
A6	02 Apr 2024	12	14.43	85.82	8.2	33.15	7.8	24.7	3.50
A6	02 Apr 2024	13	14.41	85.76	8.2	33.16	7.8	24.7	3.42
A6	02 Apr 2024	14	14.39	86.26	8.2	33.16	7.8	24.7	3.00
A6	02 Apr 2024	15	14.35	86.56	8.6	33.17	7.8	24.7	3.01
A6	02 Apr 2024	16	14.28	87.17	8.2	33.19	7.8	24.7	2.62
A6	02 Apr 2024	17	14.15	87.47	7.7	33.21	7.8	24.8	2.28
A6	09 Apr 2024	1	14.65	85.14	8.3	33.25	8.3	24.7	1.88
A6	09 Apr 2024	2	14.64	85.06	8.3	33.25	8.3	24.7	2.01
A6	09 Apr 2024	3	14.61	84.98	8.2	33.25	8.3	24.7	2.86
A6	09 Apr 2024	4	14.50	85.21	7.8	33.27	8.3	24.7	2.77
A6	09 Apr 2024	5	14.07	87.69	7.3	33.32	8.2	24.9	1.96
A6	09 Apr 2024	6	13.24	88.86	6.5	33.41	8.2	25.1	1.44
A6	09 Apr 2024	7	12.38	92.90	5.9	33.50	8.0	25.4	1.01
A6	09 Apr 2024	8	12.04	94.60	5.6	33.52	8.0	25.4	0.64
A6	09 Apr 2024	9	11.74	94.95	5.4	33.55	7.9	25.5	0.94
A6	09 Apr 2024	10	11.60	95.73	5.2	33.56	7.9	25.5	0.75
A6	09 Apr 2024	11	11.54	96.44	5.2	33.56	7.9	25.6	0.57
A6	09 Apr 2024	12	11.49	96.70	5.1	33.58	7.9	25.6	0.77
A6	09 Apr 2024	13	11.41	96.73	5.0	33.59	7.8	25.6	0.60
A6	09 Apr 2024	14	11.33	96.58	4.9	33.61	7.8	25.6	0.43
A6	09 Apr 2024	15	11.24	96.58	4.8	33.63	7.8	25.7	0.34
A6	09 Apr 2024	16	11.19	96.52	4.8	33.63	7.8	25.7	0.36
A6	09 Apr 2024	17	11.18	96.43	4.9	33.63	7.8	25.7	0.32
A6	09 Apr 2024	18	11.15	96.49	4.5	33.64	7.8	25.7	0.41
A6	09 Apr 2024	19	11.15	96.42	4.6	33.64	7.8	25.7	0.31

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
A6	16 Apr 2024	1	16.03	82.13	8.0	33.30	8.2	24.4	0.99
A6	16 Apr 2024	2	15.51	82.18	7.9	33.37	8.2	24.6	1.10
A6	16 Apr 2024	3	14.44	84.35	7.9	33.38	8.2	24.8	1.26
A6	16 Apr 2024	4	13.87	89.09	7.6	33.40	8.1	25.0	1.33
A6	16 Apr 2024	5	13.40	92.36	7.2	33.41	8.1	25.1	1.53
A6	16 Apr 2024	6	13.09	93.26	6.8	33.44	8.0	25.2	1.68
A6	16 Apr 2024	7	12.77	92.56	6.5	33.46	8.0	25.2	1.98
A6	16 Apr 2024	8	12.51	92.86	6.1	33.48	8.0	25.3	1.66
A6	16 Apr 2024	9	12.36	94.01	5.9	33.48	7.9	25.3	1.82
A6	16 Apr 2024	10	12.07	94.11	5.7	33.52	7.9	25.4	2.18
A6	16 Apr 2024	11	11.96	93.79	5.5	33.52	7.9	25.4	2.13
A6	16 Apr 2024	12	11.91	94.13	5.5	33.52	7.9	25.5	2.09
A6	16 Apr 2024	13	11.86	94.36	5.4	33.52	7.9	25.5	1.94
A6	16 Apr 2024	14	11.83	94.73	5.4	33.52	7.9	25.5	1.75
A6	16 Apr 2024	15	11.83	94.72	5.3	33.53	7.9	25.5	1.84
A6	16 Apr 2024	16	11.82	94.84	5.3	33.53	7.9	25.5	1.55
A6	16 Apr 2024	17	11.77	94.63	5.2	33.54	7.9	25.5	1.50
A6	16 Apr 2024	18	11.54	93.77	5.0	33.57	7.8	25.6	1.18
A6	23 Apr 2024	1	15.68	83.30	8.5	33.30	8.2	24.5	2.92
A6	23 Apr 2024	2	15.68	82.88	8.5	33.31	8.2	24.5	3.01
A6	23 Apr 2024	3	15.65	84.19	8.4	33.32	8.2	24.5	3.23
A6	23 Apr 2024	4	15.50	85.65	8.0	33.35	8.2	24.6	3.21
A6	23 Apr 2024	5	14.57	85.08	7.2	33.45	8.1	24.9	3.18
A6	23 Apr 2024	6	13.69	86.27	6.5	33.47	8.1	25.1	2.58
A6	23 Apr 2024	7	13.08	89.21	5.9	33.50	8.0	25.2	2.04
A6	23 Apr 2024	8	12.79	91.16	5.6	33.49	8.0	25.3	1.72
A6	23 Apr 2024	9	12.64	92.16	5.4	33.50	7.9	25.3	1.54
A6	23 Apr 2024	10	12.44	92.91	5.3	33.51	7.9	25.3	1.49
A6	23 Apr 2024	11	12.25	93.42	5.2	33.52	7.9	25.4	1.35
A6	23 Apr 2024	12	12.02	93.93	5.0	33.55	7.9	25.5	1.27
A6	23 Apr 2024	13	11.85	94.53	4.8	33.55	7.9	25.5	0.98
A6	23 Apr 2024	14	11.73	95.16	4.7	33.56	7.8	25.5	0.88
A6	23 Apr 2024	15	11.65	95.61	4.5	33.58	7.8	25.5	0.76
A6	23 Apr 2024	16	11.29	95.76	4.3	33.64	7.8	25.7	0.63
A6	23 Apr 2024	17	10.96	95.91	4.1	33.67	7.8	25.7	0.55
A6	23 Apr 2024	18	10.91	96.11	4.0	33.67	7.8	25.8	0.50
A7	02 Apr 2024	1	14.77	85.45	8.4	33.10	7.9	24.6	2.33
A7	02 Apr 2024	2	14.77	85.31	8.4	33.10	7.9	24.6	2.41
A7	02 Apr 2024	3	14.77	85.20	8.4	33.10	7.9	24.6	2.73
A7	02 Apr 2024	4	14.77	85.27	8.4	33.10	7.9	24.6	3.03
A7	02 Apr 2024	5	14.77	85.26	8.4	33.10	7.9	24.6	3.17
A7	02 Apr 2024	6	14.77	85.42	8.4	33.10	7.9	24.6	3.53
A7	02 Apr 2024	7	14.78	85.81	8.4	33.11	7.9	24.6	3.62
A7	02 Apr 2024	8	14.77	85.86	8.4	33.12	7.9	24.6	3.83
A7	02 Apr 2024	9	14.77	85.62	8.4	33.12	7.9	24.6	3.67
A7	02 Apr 2024	10	14.76	86.17	8.4	33.13	7.9	24.6	3.89
A7	02 Apr 2024	11	14.74	85.75	8.4	33.13	7.9	24.6	3.79
A7	02 Apr 2024	12	14.74	85.58	8.3	33.13	7.9	24.6	3.98
A7	02 Apr 2024	13	14.70	85.67	8.3	33.15	7.9	24.6	3.84
A7	02 Apr 2024	14	14.69	85.77	8.3	33.15	7.9	24.6	3.35
A7	02 Apr 2024	15	14.70	86.25	8.3	33.15	7.9	24.6	3.71
A7	02 Apr 2024	16	14.65	86.16	8.2	33.17	7.9	24.6	3.19
A7	02 Apr 2024	17	14.61	85.82	8.3	33.17	7.9	24.6	2.86
A7	02 Apr 2024	18	14.52	86.07	7.7	33.19	7.8	24.7	2.37
A7	09 Apr 2024	1	14.57	88.13	8.2	33.26	8.3	24.7	0.92
A7	09 Apr 2024	2	14.55	88.02	8.2	33.26	8.3	24.7	1.26
A7	09 Apr 2024	3	14.52	87.64	8.1	33.26	8.3	24.7	2.27

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
A7	09 Apr 2024	4	14.31	85.99	7.6	33.30	8.3	24.8	2.70
A7	09 Apr 2024	5	13.81	86.36	7.1	33.34	8.2	24.9	1.92
A7	09 Apr 2024	6	13.07	90.65	6.4	33.43	8.2	25.2	1.20
A7	09 Apr 2024	7	12.31	92.89	5.8	33.50	8.1	25.4	1.03
A7	09 Apr 2024	8	11.84	94.55	5.4	33.54	8.0	25.5	0.70
A7	09 Apr 2024	9	11.78	95.83	5.3	33.54	7.9	25.5	1.02
A7	09 Apr 2024	10	11.73	95.81	5.3	33.55	7.9	25.5	0.94
A7	09 Apr 2024	11	11.66	95.79	5.2	33.56	7.9	25.5	0.98
A7	09 Apr 2024	12	11.64	95.96	5.1	33.55	7.9	25.5	0.82
A7	09 Apr 2024	13	11.59	96.19	5.1	33.56	7.9	25.5	0.58
A7	09 Apr 2024	14	11.64	96.23	5.1	33.55	7.9	25.5	0.49
A7	09 Apr 2024	15	11.51	96.37	5.0	33.59	7.9	25.6	0.44
A7	09 Apr 2024	16	11.37	96.35	4.8	33.61	7.8	25.6	0.38
A7	09 Apr 2024	17	11.28	96.38	4.8	33.62	7.8	25.7	0.40
A7	09 Apr 2024	18	11.24	96.49	4.9	33.62	7.8	25.7	0.35
A7	09 Apr 2024	19	11.14	96.05	4.8	33.64	7.8	25.7	0.29
A7	09 Apr 2024	20	11.12	95.09	4.3	33.64	7.8	25.7	0.29
A7	16 Apr 2024	1	15.43	87.19	8.3	33.32	8.2	24.6	1.36
A7	16 Apr 2024	2	15.40	86.94	8.3	33.32	8.2	24.6	1.63
A7	16 Apr 2024	3	15.23	87.12	8.2	33.33	8.2	24.6	2.16
A7	16 Apr 2024	4	14.72	87.95	8.0	33.35	8.2	24.8	2.31
A7	16 Apr 2024	5	14.35	88.10	7.9	33.36	8.1	24.8	2.25
A7	16 Apr 2024	6	14.22	89.07	7.8	33.35	8.1	24.9	2.14
A7	16 Apr 2024	7	13.82	89.81	7.4	33.39	8.1	25.0	1.96
A7	16 Apr 2024	8	13.42	91.37	7.1	33.41	8.1	25.1	1.70
A7	16 Apr 2024	9	13.40	92.48	6.9	33.40	8.0	25.1	1.65
A7	16 Apr 2024	10	13.01	92.52	6.6	33.46	8.0	25.2	1.54
A7	16 Apr 2024	11	12.66	93.14	6.2	33.48	8.0	25.3	1.59
A7	16 Apr 2024	12	12.44	93.29	6.0	33.49	8.0	25.3	1.83
A7	16 Apr 2024	13	12.28	94.18	5.8	33.50	7.9	25.4	1.77
A7	16 Apr 2024	14	12.08	94.30	5.6	33.52	7.9	25.4	1.77
A7	16 Apr 2024	15	11.96	94.29	5.4	33.52	7.9	25.4	2.03
A7	16 Apr 2024	16	11.92	94.41	5.4	33.53	7.9	25.5	1.92
A7	16 Apr 2024	17	11.80	94.74	5.4	33.55	7.9	25.5	1.32
A7	16 Apr 2024	18	11.72	95.14	5.2	33.56	7.9	25.5	1.07
A7	16 Apr 2024	19	11.73	95.52	5.1	33.56	7.8	25.5	0.92
A7	23 Apr 2024	1	15.71	87.46	8.5	33.31	8.2	24.5	2.66
A7	23 Apr 2024	2	15.66	87.51	8.4	33.31	8.2	24.5	2.99
A7	23 Apr 2024	3	15.35	86.39	8.1	33.34	8.2	24.6	3.33
A7	23 Apr 2024	4	14.63	84.88	7.4	33.41	8.1	24.8	3.17
A7	23 Apr 2024	5	14.00	85.35	6.7	33.44	8.1	25.0	2.85
A7	23 Apr 2024	6	13.01	86.89	6.1	33.48	8.0	25.2	2.43
A7	23 Apr 2024	7	12.87	88.46	5.7	33.47	8.0	25.2	2.20
A7	23 Apr 2024	8	12.55	90.10	5.6	33.49	7.9	25.3	2.08
A7	23 Apr 2024	9	12.41	91.15	5.5	33.49	7.9	25.3	1.90
A7	23 Apr 2024	10	12.21	92.07	5.2	33.52	7.9	25.4	1.58
A7	23 Apr 2024	11	11.95	93.11	5.0	33.54	7.9	25.5	1.62
A7	23 Apr 2024	12	12.02	93.91	5.0	33.52	7.9	25.4	1.59
A7	23 Apr 2024	13	11.77	94.83	4.8	33.57	7.9	25.5	1.19
A7	23 Apr 2024	14	11.69	94.88	4.6	33.58	7.8	25.5	0.92
A7	23 Apr 2024	15	11.55	95.09	4.4	33.60	7.8	25.6	0.83
A7	23 Apr 2024	16	11.34	95.41	4.3	33.62	7.8	25.6	0.83
A7	23 Apr 2024	17	11.33	95.57	4.3	33.62	7.8	25.6	0.72
A7	23 Apr 2024	18	11.26	95.61	4.2	33.63	7.8	25.7	0.86
A7	23 Apr 2024	19	11.29	95.35	4.2	33.63	7.8	25.7	0.67
C4	02 Apr 2024	1	14.87	75.29	8.2	33.17	7.7	24.6	0.97
C4	02 Apr 2024	2	14.86	70.75	8.2	33.17	7.7	24.6	1.03
C4	02 Apr 2024	3	14.84	73.67	8.2	33.17	7.7	24.6	1.55

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
C4	02 Apr 2024	4	14.83	73.88	8.2	33.17	7.7	24.6	2.28
C4	02 Apr 2024	5	14.78	74.19	8.1	33.17	7.7	24.6	2.50
C4	02 Apr 2024	6	14.51	76.79	7.9	33.19	7.7	24.7	2.08
C4	02 Apr 2024	7	14.43	81.58	7.8	33.17	7.7	24.7	1.87
C4	02 Apr 2024	8	14.41	81.88	7.8	33.18	7.7	24.7	1.52
C4	02 Apr 2024	9	14.40	87.12	7.8	33.20	7.7	24.7	0.99
C4	02 Apr 2024	10	14.40	87.31	7.3	33.20	7.7	24.7	0.81
C4	09 Apr 2024	1	14.80	92.35	8.0	33.24	8.1	24.7	0.53
C4	09 Apr 2024	2	14.67	91.93	8.0	33.25	8.1	24.7	0.59
C4	09 Apr 2024	3	14.58	92.27	8.0	33.25	8.1	24.7	0.62
C4	09 Apr 2024	4	14.42	91.28	7.8	33.27	8.1	24.8	0.76
C4	09 Apr 2024	5	14.13	90.54	7.3	33.30	8.0	24.8	0.77
C4	09 Apr 2024	6	13.31	91.44	6.6	33.39	8.0	25.1	0.65
C4	09 Apr 2024	7	12.91	92.80	6.1	33.42	7.9	25.2	0.72
C4	09 Apr 2024	8	12.66	94.14	5.9	33.45	7.8	25.3	0.45
C4	09 Apr 2024	9	12.60	94.41	5.8	33.45	7.8	25.3	0.39
C4	09 Apr 2024	10	12.56	93.81	5.6	33.45	7.8	25.3	0.32
C4	09 Apr 2024	11	12.56	93.50	5.7	33.45	7.8	25.3	0.36
C4	16 Apr 2024	1	15.37	85.43	7.5	33.33	8.1	24.6	0.37
C4	16 Apr 2024	2	15.32	85.19	7.5	33.34	8.1	24.6	0.37
C4	16 Apr 2024	3	15.12	84.95	7.4	33.34	8.1	24.7	0.53
C4	16 Apr 2024	4	14.80	84.64	7.2	33.36	8.1	24.8	0.77
C4	16 Apr 2024	5	14.39	85.55	7.3	33.38	8.1	24.9	1.08
C4	16 Apr 2024	6	14.32	87.58	7.4	33.38	8.1	24.9	1.12
C4	16 Apr 2024	7	14.18	88.25	7.2	33.40	8.1	24.9	0.97
C4	16 Apr 2024	8	13.66	88.09	6.7	33.43	8.0	25.0	0.55
C4	16 Apr 2024	9	13.10	88.29	6.3	33.47	8.0	25.2	0.42
C4	16 Apr 2024	10	12.95	86.64	6.2	33.46	8.0	25.2	0.36
C4	16 Apr 2024	11	13.03	84.26	6.2	33.45	8.0	25.2	0.33
C5	02 Apr 2024	1	14.89	73.99	9.1	33.10	7.8	24.5	3.00
C5	02 Apr 2024	2	14.86	73.67	9.0	33.11	7.8	24.5	3.46
C5	02 Apr 2024	3	14.77	72.76	8.6	33.14	7.7	24.6	4.43
C5	02 Apr 2024	4	14.74	75.49	8.4	33.15	7.7	24.6	4.40
C5	02 Apr 2024	5	14.70	79.36	8.2	33.15	7.7	24.6	3.31
C5	02 Apr 2024	6	14.65	83.71	8.1	33.16	7.7	24.6	2.24
C5	02 Apr 2024	7	14.63	84.57	8.2	33.17	7.7	24.6	1.74
C5	02 Apr 2024	8	14.62	84.18	8.1	33.19	7.7	24.7	1.65
C5	02 Apr 2024	9	14.52	84.27	8.7	33.20	7.7	24.7	1.56
C5	02 Apr 2024	10	14.46	85.31	7.9	33.20	7.6	24.7	1.36
C5	09 Apr 2024	1	14.53	88.63	7.9	33.30	8.1	24.8	0.58
C5	09 Apr 2024	2	14.49	88.56	7.9	33.31	8.1	24.8	0.64
C5	09 Apr 2024	3	14.43	88.26	7.8	33.31	8.1	24.8	0.71
C5	09 Apr 2024	4	14.42	88.06	7.6	33.30	8.1	24.8	0.71
C5	09 Apr 2024	5	13.84	88.77	7.3	33.36	8.0	25.0	0.70
C5	09 Apr 2024	6	13.91	90.96	7.2	33.33	8.0	24.9	0.65
C5	09 Apr 2024	7	13.30	92.70	6.7	33.40	8.0	25.1	0.61
C5	09 Apr 2024	8	12.92	93.23	6.6	33.43	7.9	25.2	0.54
C5	09 Apr 2024	9	12.77	93.07	6.1	33.45	7.8	25.2	0.41
C5	09 Apr 2024	10	12.59	93.14	5.9	33.47	7.8	25.3	0.37
C5	16 Apr 2024	1	15.80	78.91	8.3	33.33	8.2	24.5	0.59
C5	16 Apr 2024	2	15.58	82.46	8.2	33.33	8.2	24.6	0.83
C5	16 Apr 2024	3	14.88	85.81	8.1	33.36	8.2	24.7	1.16
C5	16 Apr 2024	4	14.56	88.92	7.8	33.37	8.1	24.8	1.17
C5	16 Apr 2024	5	14.22	90.72	7.3	33.39	8.1	24.9	0.90
C5	16 Apr 2024	6	14.04	92.11	6.9	33.40	8.0	24.9	0.67
C5	16 Apr 2024	7	13.44	93.22	6.6	33.45	8.0	25.1	0.48

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
C5	16 Apr 2024	8	13.24	94.05	6.2	33.44	8.0	25.1	0.42
C5	16 Apr 2024	9	12.49	94.56	5.8	33.52	8.0	25.3	0.39
C5	16 Apr 2024	10	12.32	94.43	5.6	33.50	7.9	25.4	0.43
C5	16 Apr 2024	11	12.19	93.40	5.5	33.51	7.9	25.4	0.42
C5	23 Apr 2024	1	15.37	84.34	7.5	33.39	8.1	24.6	2.04
C5	23 Apr 2024	2	15.38	82.05	7.5	33.39	8.1	24.6	2.14
C5	23 Apr 2024	3	15.32	85.41	7.4	33.40	8.1	24.7	2.19
C5	23 Apr 2024	4	15.25	86.04	7.2	33.40	8.1	24.7	2.12
C5	23 Apr 2024	5	15.16	86.00	7.0	33.41	8.1	24.7	2.05
C5	23 Apr 2024	6	14.85	86.36	6.7	33.41	8.1	24.8	1.77
C5	23 Apr 2024	7	13.95	88.02	6.3	33.50	8.1	25.0	1.64
C5	23 Apr 2024	8	13.65	89.73	6.0	33.45	8.0	25.1	1.49
C5	23 Apr 2024	9	13.42	90.54	5.8	33.48	8.0	25.1	1.45
C5	23 Apr 2024	10	13.33	90.66	5.7	33.47	8.0	25.1	1.33
C6	02 Apr 2024	1	14.80	81.71	8.4	33.14	7.7	24.6	1.23
C6	02 Apr 2024	2	14.79	81.18	8.5	33.13	7.7	24.6	1.28
C6	02 Apr 2024	3	14.79	81.29	8.4	33.14	7.7	24.6	1.58
C6	02 Apr 2024	4	14.75	81.14	8.3	33.14	7.7	24.6	2.06
C6	02 Apr 2024	5	14.67	80.52	8.2	33.15	7.7	24.6	2.46
C6	02 Apr 2024	6	14.64	80.06	8.1	33.16	7.6	24.6	2.23
C6	02 Apr 2024	7	14.62	79.57	7.8	33.17	7.6	24.6	1.54
C6	02 Apr 2024	8	14.40	78.40	7.3	33.20	7.6	24.7	0.94
C6	09 Apr 2024	1	14.56	84.58	8.2	33.28	8.1	24.7	1.41
C6	09 Apr 2024	2	14.54	84.61	8.1	33.28	8.1	24.7	1.49
C6	09 Apr 2024	3	14.53	84.50	8.0	33.28	8.1	24.7	1.64
C6	09 Apr 2024	4	14.32	85.17	7.8	33.30	8.1	24.8	1.70
C6	09 Apr 2024	5	14.23	87.31	7.6	33.30	8.1	24.8	1.63
C6	09 Apr 2024	6	14.01	89.65	7.5	33.33	8.0	24.9	1.36
C6	09 Apr 2024	7	13.68	90.72	7.0	33.37	8.0	25.0	0.95
C6	09 Apr 2024	8	12.80	92.20	6.4	33.47	7.9	25.2	0.52
C6	09 Apr 2024	9	12.74	92.89	6.2	33.46	7.9	25.3	0.41
C6	16 Apr 2024	1	16.17	84.96	8.0	33.33	8.2	24.4	0.32
C6	16 Apr 2024	2	16.06	81.98	7.9	33.33	8.2	24.5	0.36
C6	16 Apr 2024	3	14.95	85.80	7.8	33.40	8.2	24.7	0.63
C6	16 Apr 2024	4	14.20	85.98	7.7	33.38	8.1	24.9	0.80
C6	16 Apr 2024	5	13.99	91.87	7.5	33.38	8.1	24.9	0.74
C6	16 Apr 2024	6	13.78	93.52	7.2	33.41	8.1	25.0	0.59
C6	16 Apr 2024	7	13.50	93.80	6.7	33.42	8.0	25.1	0.44
C6	16 Apr 2024	8	12.89	93.82	6.2	33.48	8.0	25.2	0.35
C6	16 Apr 2024	9	12.73	92.25	6.1	33.47	8.0	25.3	0.34
C6	23 Apr 2024	1	15.59	84.98	8.3	33.35	8.2	24.6	3.19
C6	23 Apr 2024	2	15.59	84.87	8.3	33.35	8.2	24.6	3.37
C6	23 Apr 2024	3	15.54	84.79	8.1	33.36	8.2	24.6	3.42
C6	23 Apr 2024	4	15.41	85.11	7.8	33.37	8.2	24.6	3.16
C6	23 Apr 2024	5	14.94	85.38	7.4	33.41	8.1	24.8	3.07
C6	23 Apr 2024	6	14.72	85.72	7.0	33.40	8.1	24.8	2.58
C6	23 Apr 2024	7	14.08	88.88	6.1	33.49	8.1	25.0	1.83
C6	23 Apr 2024	8	13.02	89.59	5.3	33.51	8.0	25.2	1.24
C6	23 Apr 2024	9	12.90	89.94	5.0	33.49	7.9	25.2	1.01
C7	02 Apr 2024	1	14.54	80.25	8.6	33.09	7.8	24.6	2.76
C7	02 Apr 2024	2	14.55	80.20	8.6	33.08	7.8	24.6	2.95
C7	02 Apr 2024	3	14.53	79.93	8.5	33.11	7.8	24.6	3.58
C7	02 Apr 2024	4	14.53	80.06	8.4	33.14	7.8	24.6	4.26
C7	02 Apr 2024	5	14.53	80.22	8.4	33.15	7.8	24.6	4.63
C7	02 Apr 2024	6	14.54	80.38	8.3	33.18	7.8	24.7	4.18

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
C7	02 Apr 2024	7	14.41	81.59	8.2	33.21	7.8	24.7	3.57
C7	02 Apr 2024	8	14.28	84.22	8.1	33.22	7.8	24.8	3.57
C7	02 Apr 2024	9	14.21	85.29	8.1	33.21	7.8	24.8	3.08
C7	02 Apr 2024	10	14.18	87.41	8.0	33.21	7.8	24.8	2.83
C7	02 Apr 2024	11	14.16	88.72	8.0	33.21	7.8	24.8	2.70
C7	02 Apr 2024	12	14.14	89.51	7.9	33.21	7.8	24.8	2.78
C7	02 Apr 2024	13	14.13	90.22	7.9	33.21	7.8	24.8	2.35
C7	02 Apr 2024	14	14.11	91.03	7.8	33.22	7.8	24.8	2.33
C7	02 Apr 2024	15	14.08	92.18	8.5	33.22	7.8	24.8	1.70
C7	02 Apr 2024	16	14.07	93.12	7.6	33.22	7.7	24.8	1.44
C7	02 Apr 2024	17	14.07	93.81	7.6	33.22	7.7	24.8	1.40
C7	09 Apr 2024	1	14.83	89.82	8.3	33.24	8.2	24.7	0.98
C7	09 Apr 2024	2	14.81	89.42	8.3	33.24	8.2	24.7	1.26
C7	09 Apr 2024	3	14.79	89.35	8.2	33.24	8.2	24.7	1.58
C7	09 Apr 2024	4	14.68	88.56	8.1	33.25	8.2	24.7	1.91
C7	09 Apr 2024	5	14.58	88.63	7.9	33.26	8.2	24.7	2.17
C7	09 Apr 2024	6	14.08	89.75	7.4	33.32	8.2	24.9	2.12
C7	09 Apr 2024	7	13.60	91.55	7.0	33.37	8.1	25.0	1.60
C7	09 Apr 2024	8	13.28	93.13	6.8	33.38	8.0	25.1	1.32
C7	09 Apr 2024	9	13.19	94.00	6.6	33.40	8.0	25.1	1.33
C7	09 Apr 2024	10	12.73	94.34	6.2	33.46	8.0	25.3	1.19
C7	09 Apr 2024	11	12.46	94.60	5.9	33.48	7.9	25.3	0.62
C7	09 Apr 2024	12	12.33	94.74	5.8	33.51	7.9	25.4	0.54
C7	09 Apr 2024	13	11.94	95.45	5.4	33.54	7.9	25.5	0.53
C7	09 Apr 2024	14	11.62	96.18	5.2	33.58	7.8	25.6	0.49
C7	09 Apr 2024	15	11.42	96.32	5.0	33.60	7.8	25.6	0.56
C7	09 Apr 2024	16	11.44	96.61	5.2	33.59	7.8	25.6	0.51
C7	09 Apr 2024	17	11.39	96.59	5.0	33.61	7.8	25.6	0.35
C7	09 Apr 2024	18	11.40	96.50	4.8	33.61	7.8	25.6	0.41
C7	16 Apr 2024	1	15.52	84.69	8.2	33.24	8.2	24.5	1.03
C7	16 Apr 2024	2	15.50	85.02	8.1	33.26	8.2	24.5	1.09
C7	16 Apr 2024	3	15.44	84.58	8.1	33.28	8.2	24.5	1.15
C7	16 Apr 2024	4	14.86	85.21	7.9	33.34	8.2	24.7	1.35
C7	16 Apr 2024	5	14.30	87.78	7.8	33.36	8.1	24.9	1.42
C7	16 Apr 2024	6	14.38	89.77	7.7	33.34	8.1	24.8	1.36
C7	16 Apr 2024	7	13.94	91.23	7.6	33.38	8.1	24.9	1.42
C7	16 Apr 2024	8	13.88	91.69	7.3	33.38	8.1	25.0	1.35
C7	16 Apr 2024	9	13.24	91.93	7.1	33.43	8.0	25.1	1.74
C7	16 Apr 2024	10	13.09	92.27	6.9	33.43	8.0	25.2	1.75
C7	16 Apr 2024	11	12.92	92.50	6.6	33.45	8.0	25.2	1.61
C7	16 Apr 2024	12	12.81	92.97	6.2	33.46	8.0	25.2	1.27
C7	16 Apr 2024	13	12.11	94.03	5.7	33.54	8.0	25.4	0.95
C7	16 Apr 2024	14	11.52	94.59	5.2	33.57	7.9	25.6	1.30
C7	16 Apr 2024	15	11.44	94.89	4.9	33.57	7.8	25.6	1.23
C7	16 Apr 2024	16	11.41	95.58	4.8	33.58	7.8	25.6	1.39
C7	16 Apr 2024	17	11.40	95.80	4.8	33.58	7.8	25.6	1.06
C7	23 Apr 2024	1	15.60	83.84	8.3	33.31	8.2	24.5	3.93
C7	23 Apr 2024	2	15.60	83.88	8.3	33.31	8.2	24.5	3.99
C7	23 Apr 2024	3	15.60	83.99	8.3	33.31	8.2	24.5	4.02
C7	23 Apr 2024	4	15.56	83.97	8.3	33.32	8.2	24.6	3.49
C7	23 Apr 2024	5	15.52	85.44	8.2	33.32	8.2	24.6	2.99
C7	23 Apr 2024	6	15.35	86.60	7.9	33.35	8.2	24.6	2.60
C7	23 Apr 2024	7	14.77	86.97	7.3	33.41	8.1	24.8	2.36
C7	23 Apr 2024	8	14.17	87.45	6.7	33.45	8.1	25.0	2.11
C7	23 Apr 2024	9	13.60	88.93	6.3	33.47	8.0	25.1	1.92
C7	23 Apr 2024	10	13.14	90.97	5.8	33.48	8.0	25.2	1.73
C7	23 Apr 2024	11	12.61	92.32	5.4	33.51	7.9	25.3	1.37
C7	23 Apr 2024	12	12.41	93.63	5.0	33.52	7.9	25.4	1.08

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
C7	23 Apr 2024	13	11.89	94.60	4.8	33.56	7.9	25.5	0.91
	23 Apr 2024	14	11.76	95.14	4.5	33.56	7.8	25.5	0.74
	23 Apr 2024	15	11.65	95.25	4.4	33.57	7.8	25.5	0.66
	23 Apr 2024	16	11.45	95.21	4.4	33.60	7.8	25.6	0.65
	23 Apr 2024	17	11.24	95.38	4.2	33.62	7.8	25.7	0.58
	23 Apr 2024	18	11.23	95.33	4.1	33.62	7.8	25.7	0.53
C8	02 Apr 2024	1	14.23	79.52	8.3	33.11	7.8	24.7	1.82
	02 Apr 2024	2	14.21	79.15	8.3	33.11	7.8	24.7	2.01
	02 Apr 2024	3	14.24	78.07	8.3	33.13	7.8	24.7	3.00
	02 Apr 2024	4	14.31	78.10	8.3	33.17	7.8	24.7	3.83
	02 Apr 2024	5	14.27	80.11	8.2	33.19	7.8	24.7	4.12
	02 Apr 2024	6	14.22	83.33	8.1	33.20	7.8	24.8	4.25
	02 Apr 2024	7	14.21	78.94	8.1	33.20	7.8	24.8	4.09
	02 Apr 2024	8	14.16	84.97	8.1	33.21	7.8	24.8	4.47
	02 Apr 2024	9	14.12	86.70	8.0	33.22	7.8	24.8	4.69
	02 Apr 2024	10	14.09	87.46	8.0	33.22	7.8	24.8	4.49
	02 Apr 2024	11	14.08	87.83	8.0	33.22	7.8	24.8	4.27
	02 Apr 2024	12	14.06	88.20	7.9	33.22	7.7	24.8	3.75
	02 Apr 2024	13	14.05	88.07	7.9	33.22	7.7	24.8	3.88
	02 Apr 2024	14	14.03	88.07	7.8	33.23	7.7	24.8	3.69
	02 Apr 2024	15	13.97	88.42	7.7	33.24	7.7	24.8	3.05
	02 Apr 2024	16	13.95	88.99	7.7	33.24	7.7	24.8	2.57
	02 Apr 2024	17	13.89	89.90	7.6	33.24	7.7	24.9	1.94
	02 Apr 2024	18	13.88	90.44	7.5	33.24	7.7	24.9	2.05
C8	09 Apr 2024	1	14.97	86.76	8.4	33.20	8.2	24.6	1.54
	09 Apr 2024	2	14.97	86.97	8.4	33.20	8.2	24.6	1.60
	09 Apr 2024	3	14.94	86.48	8.3	33.21	8.2	24.6	1.88
	09 Apr 2024	4	14.86	86.53	8.2	33.22	8.2	24.6	2.70
	09 Apr 2024	5	14.81	86.23	8.0	33.23	8.2	24.6	3.11
	09 Apr 2024	6	14.42	86.44	7.7	33.29	8.2	24.8	2.73
	09 Apr 2024	7	14.12	88.99	7.5	33.30	8.1	24.9	2.16
	09 Apr 2024	8	13.70	91.34	7.1	33.34	8.1	25.0	1.62
	09 Apr 2024	9	13.16	93.12	6.7	33.39	8.0	25.1	1.19
	09 Apr 2024	10	12.91	94.07	6.4	33.41	8.0	25.2	0.91
	09 Apr 2024	11	12.85	94.54	6.4	33.42	8.0	25.2	0.80
	09 Apr 2024	12	12.73	94.83	6.2	33.44	8.0	25.2	0.98
	09 Apr 2024	13	12.56	95.19	5.9	33.46	7.9	25.3	0.82
	09 Apr 2024	14	12.04	95.54	5.6	33.54	7.9	25.4	0.73
	09 Apr 2024	15	11.74	95.86	5.3	33.56	7.8	25.5	0.64
	09 Apr 2024	16	11.61	96.01	5.1	33.58	7.8	25.6	0.48
	09 Apr 2024	17	11.43	96.19	5.0	33.60	7.8	25.6	0.34
	09 Apr 2024	18	11.39	96.34	5.2	33.61	7.8	25.6	0.33
	09 Apr 2024	19	11.28	95.96	4.6	33.63	7.7	25.7	0.36
C8	16 Apr 2024	1	15.53	81.35	8.0	33.26	8.1	24.5	1.54
	16 Apr 2024	2	15.49	81.95	7.9	33.27	8.1	24.5	1.54
	16 Apr 2024	3	14.90	83.36	7.8	33.35	8.1	24.7	1.56
	16 Apr 2024	4	14.56	88.38	7.7	33.34	8.1	24.8	1.35
	16 Apr 2024	5	14.14	90.15	7.7	33.38	8.1	24.9	1.37
	16 Apr 2024	6	14.02	91.25	7.6	33.36	8.1	24.9	1.52
	16 Apr 2024	7	13.74	91.95	7.4	33.38	8.1	25.0	1.57
	16 Apr 2024	8	13.52	92.26	7.2	33.38	8.1	25.0	1.82
	16 Apr 2024	9	13.19	92.39	7.0	33.40	8.0	25.1	2.54
	16 Apr 2024	10	13.17	92.36	6.8	33.40	8.0	25.1	2.31
	16 Apr 2024	11	12.85	92.57	6.6	33.44	8.0	25.2	1.91
	16 Apr 2024	12	12.76	93.03	6.4	33.46	8.0	25.2	1.93
	16 Apr 2024	13	12.55	93.56	6.1	33.48	8.0	25.3	1.60
	16 Apr 2024	14	12.28	94.02	5.8	33.51	7.9	25.4	1.43
	16 Apr 2024	15	11.73	94.32	5.4	33.56	7.9	25.5	1.36

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
C8	16 Apr 2024	16	11.58	94.33	5.1	33.55	7.9	25.5	1.47
C8	16 Apr 2024	17	11.49	94.52	4.9	33.60	7.8	25.6	1.58
C8	16 Apr 2024	18	11.16	95.03	4.7	33.62	7.8	25.7	1.28
C8	16 Apr 2024	19	11.16	95.42	4.6	33.62	7.8	25.7	1.18
C8	23 Apr 2024	1	15.49	80.34	8.6	33.32	8.2	24.6	5.10
C8	23 Apr 2024	2	15.48	80.32	8.6	33.32	8.2	24.6	5.29
C8	23 Apr 2024	3	15.47	80.32	8.5	33.33	8.2	24.6	5.19
C8	23 Apr 2024	4	15.47	81.38	8.5	33.33	8.2	24.6	5.04
C8	23 Apr 2024	5	15.46	81.89	8.5	33.33	8.2	24.6	4.64
C8	23 Apr 2024	6	15.41	82.92	8.4	33.33	8.2	24.6	4.24
C8	23 Apr 2024	7	15.38	83.47	8.3	33.33	8.2	24.6	3.85
C8	23 Apr 2024	8	15.09	83.84	8.0	33.36	8.2	24.7	3.46
C8	23 Apr 2024	9	14.71	85.73	7.7	33.37	8.1	24.8	3.00
C8	23 Apr 2024	10	14.52	87.17	7.4	33.37	8.1	24.8	2.71
C8	23 Apr 2024	11	14.20	88.52	7.2	33.40	8.1	24.9	2.54
C8	23 Apr 2024	12	14.03	89.31	7.1	33.38	8.1	24.9	2.59
C8	23 Apr 2024	13	13.82	90.26	6.7	33.42	8.1	25.0	2.66
C8	23 Apr 2024	14	13.12	90.90	6.1	33.49	8.0	25.2	2.19
C8	23 Apr 2024	15	12.51	92.09	5.3	33.53	8.0	25.3	1.54
C8	23 Apr 2024	16	12.00	93.50	4.8	33.56	7.9	25.5	1.11
C8	23 Apr 2024	17	11.56	93.70	4.4	33.60	7.8	25.6	0.88
C8	23 Apr 2024	18	11.12	93.43	4.3	33.65	7.8	25.7	0.80
C8	23 Apr 2024	19	11.03	94.41	4.2	33.64	7.8	25.7	0.75
C8	23 Apr 2024	20	11.29	94.92	4.1	33.58	7.8	25.6	0.77

NA = not available

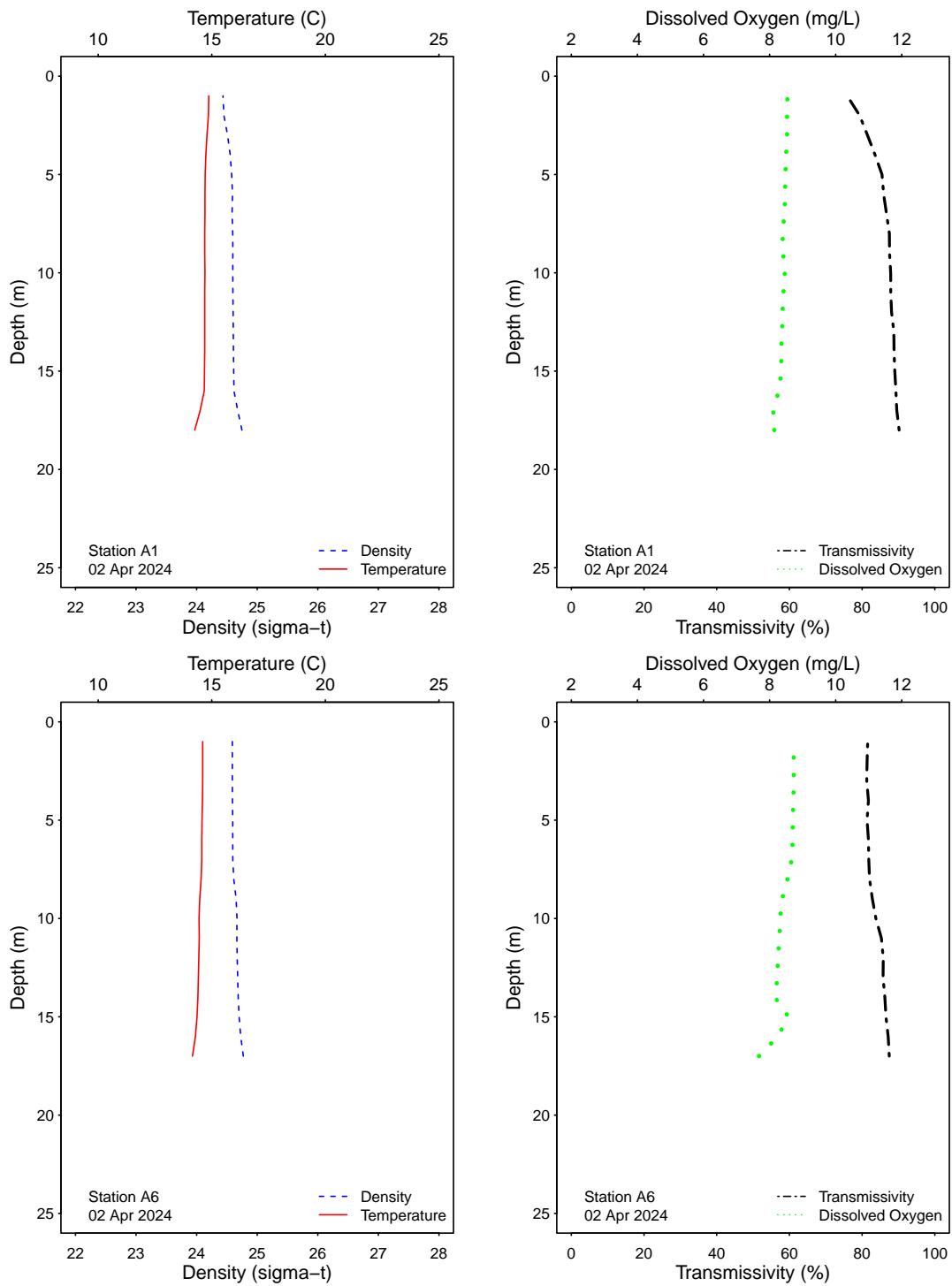


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

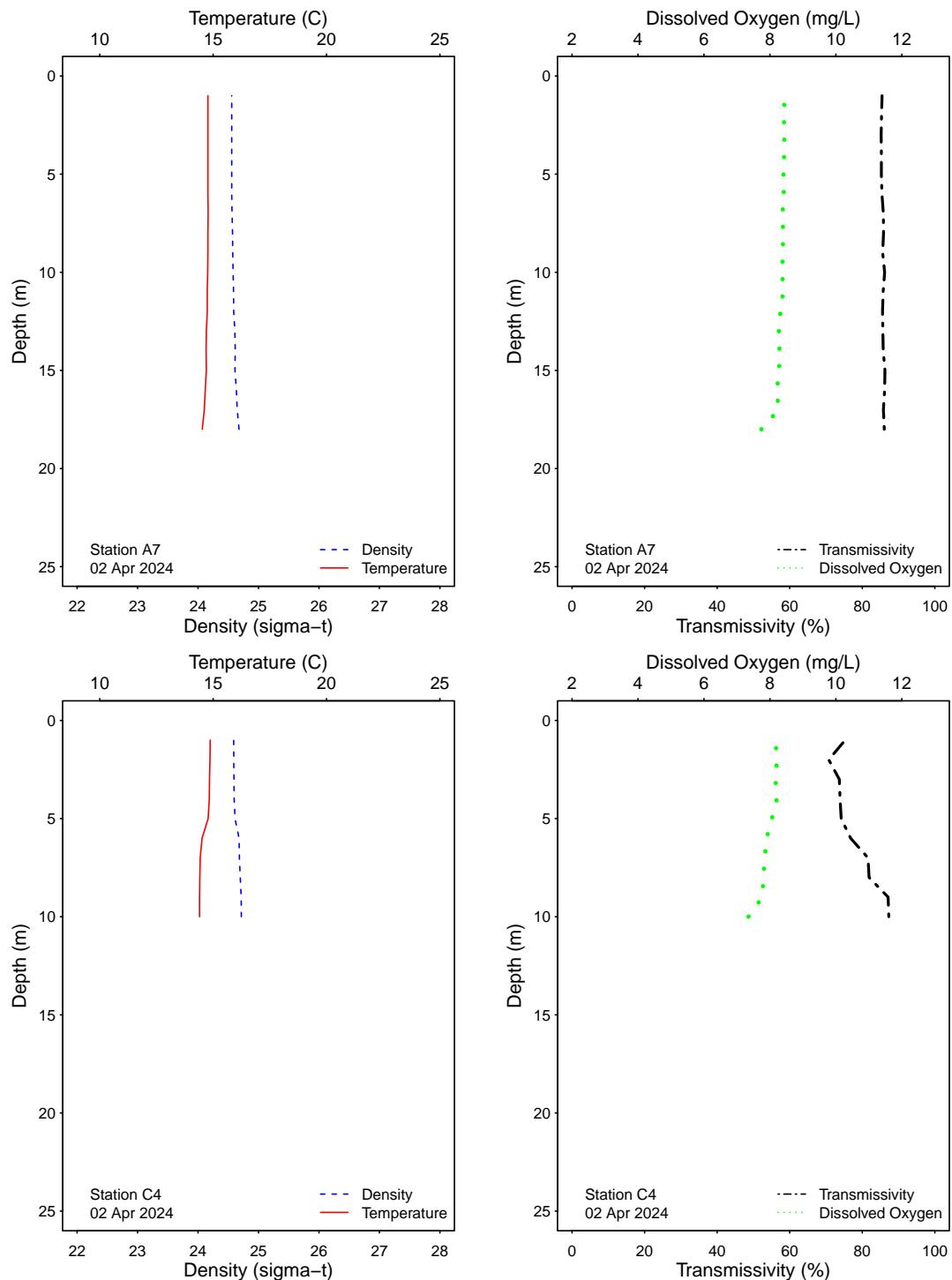


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

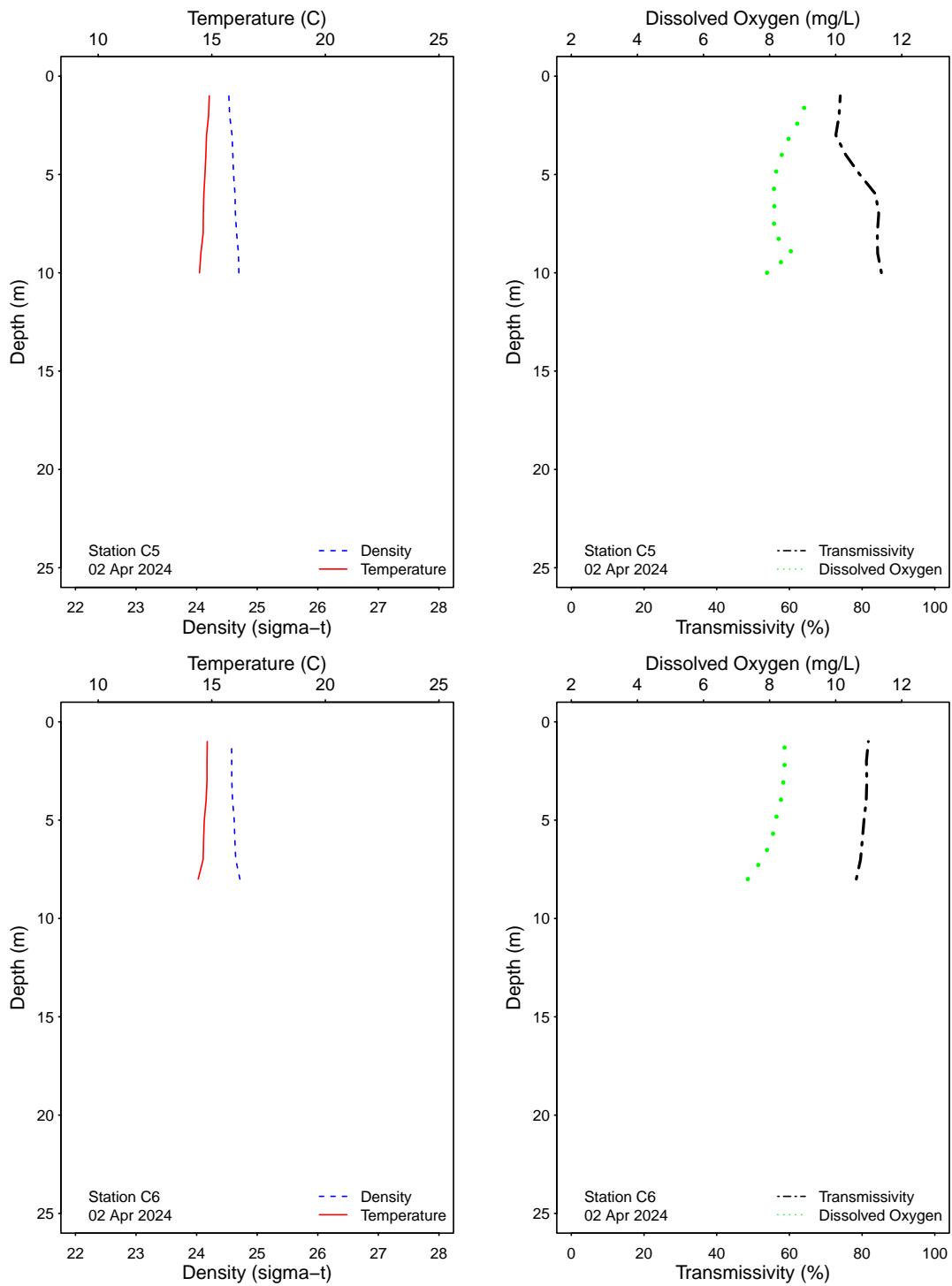


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

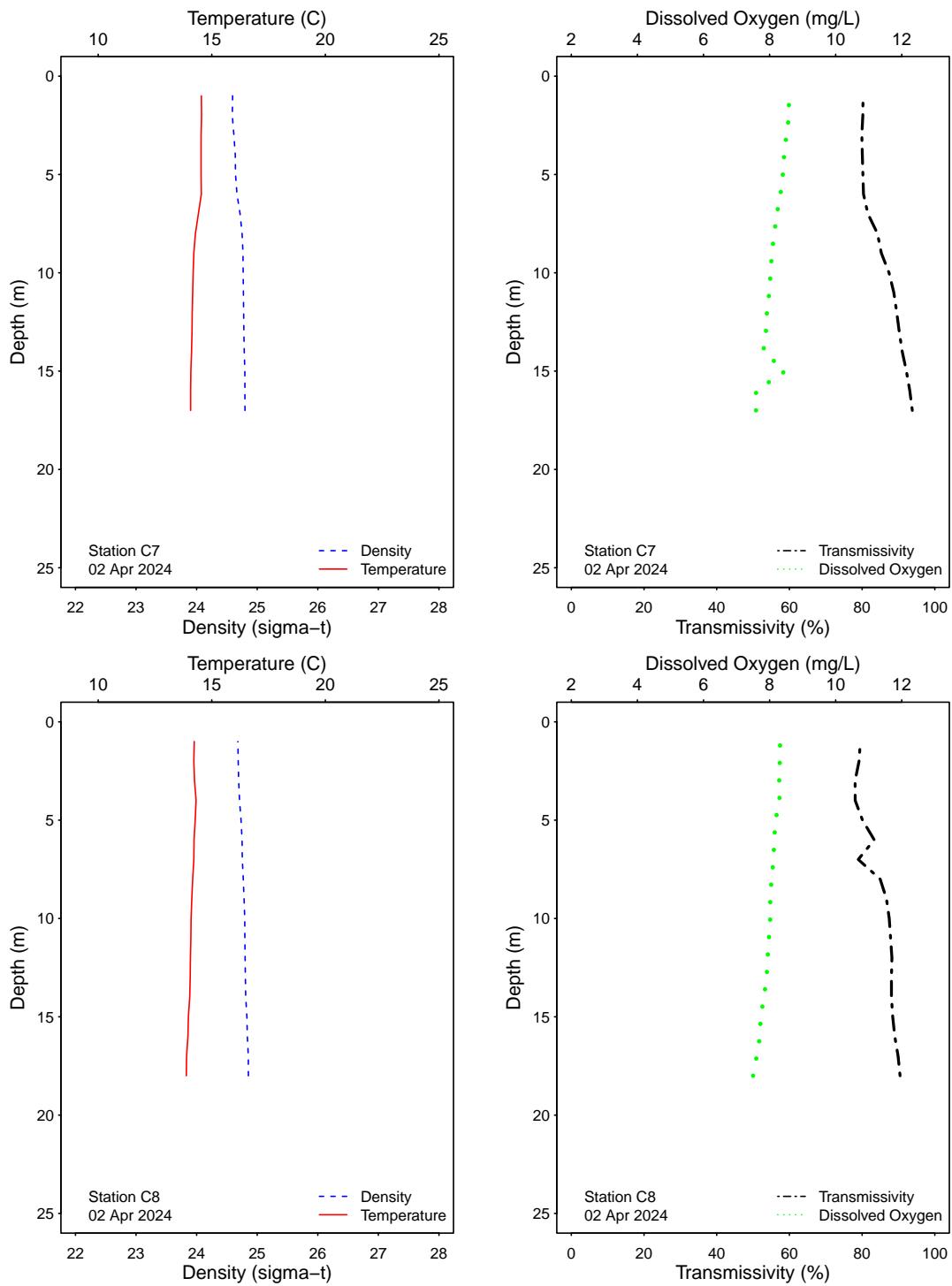


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

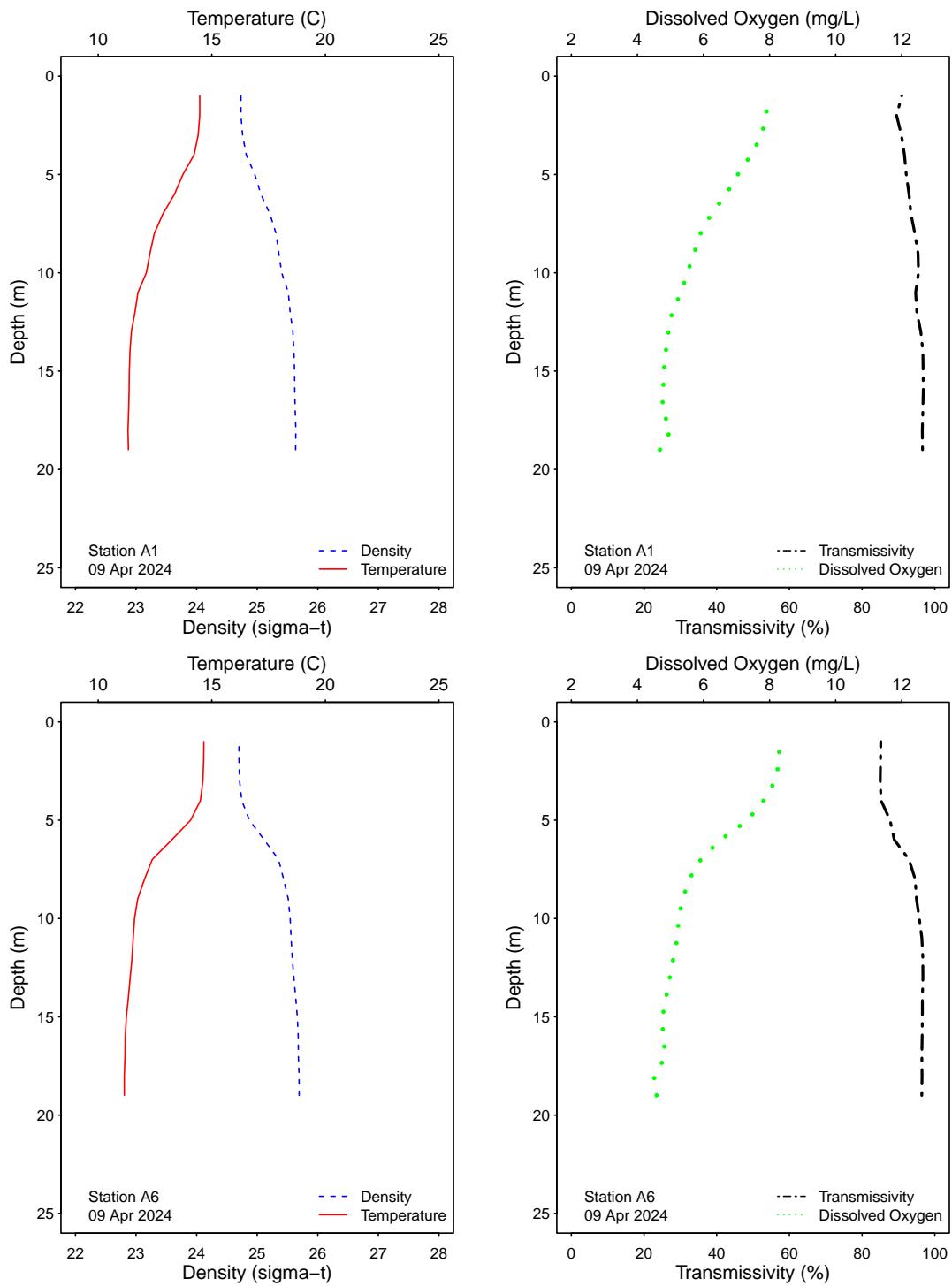


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

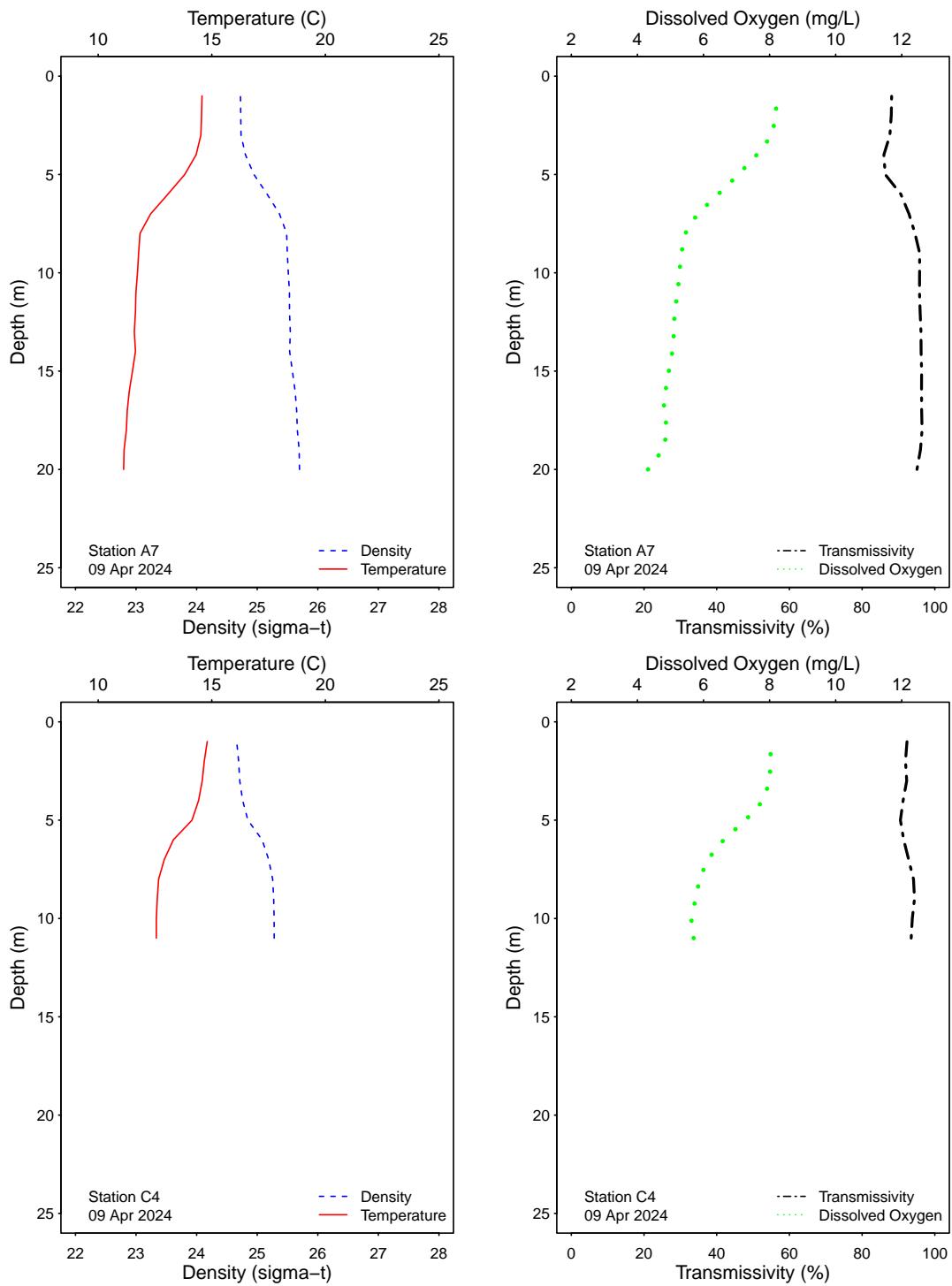


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

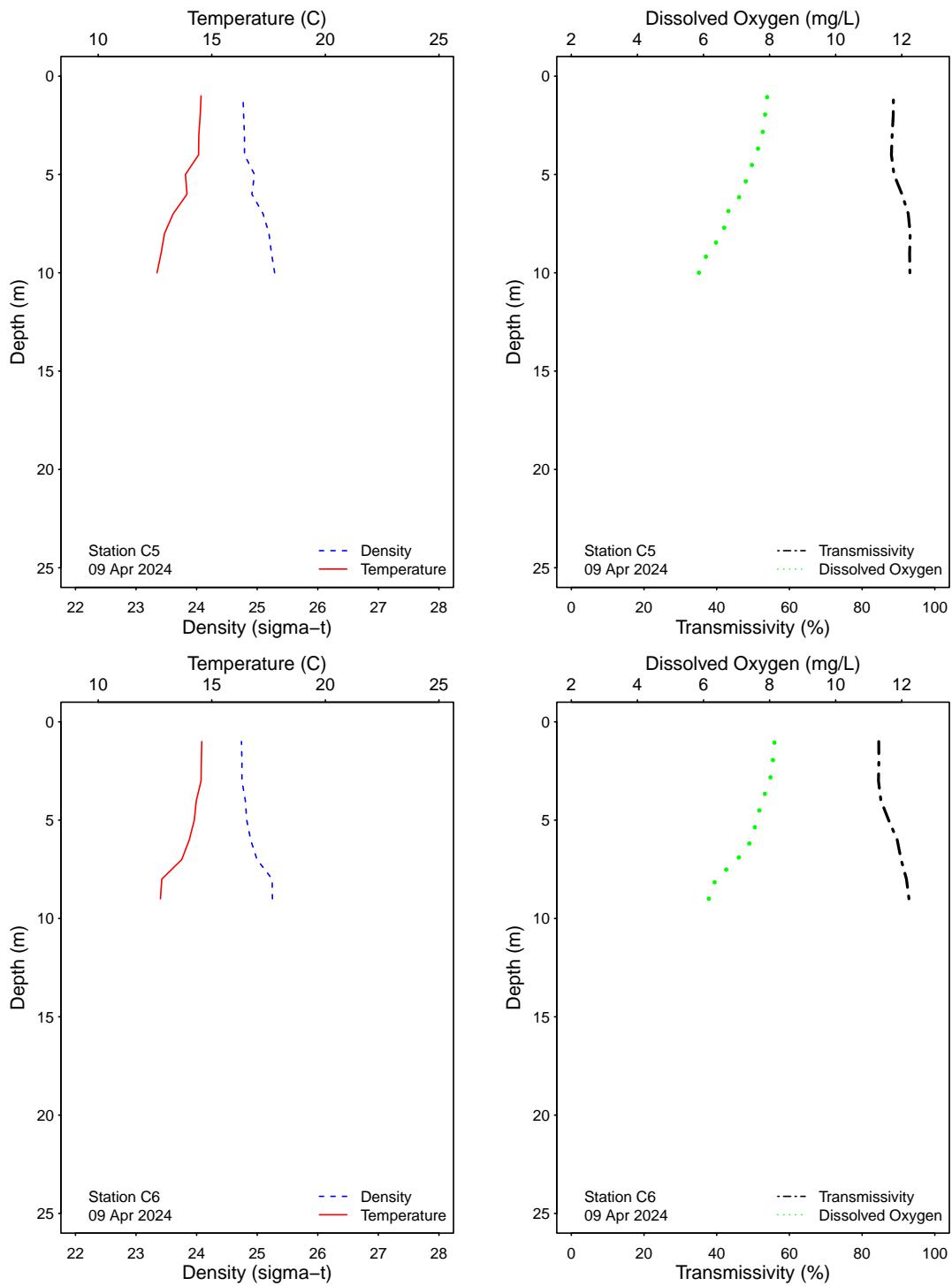


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

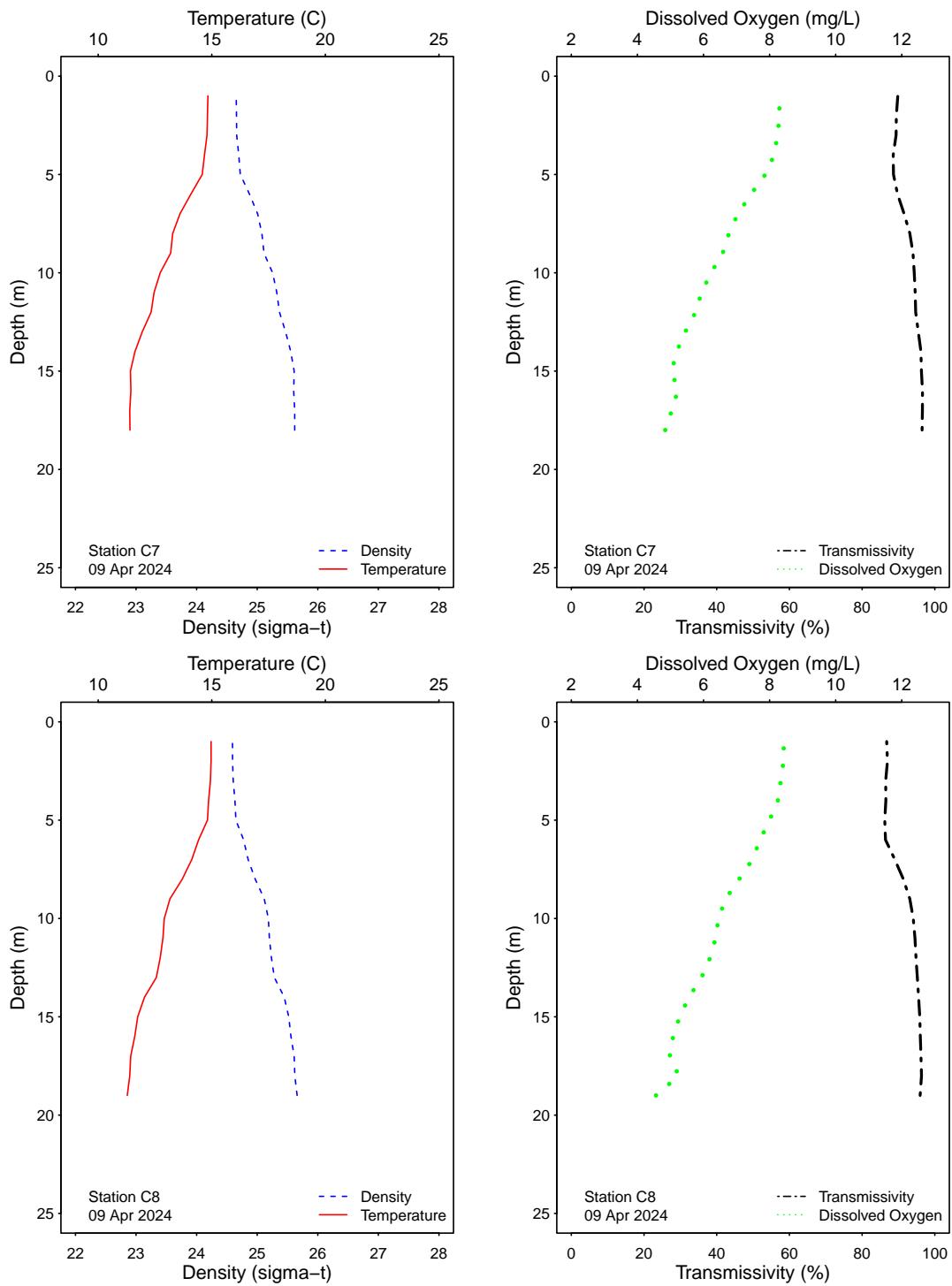


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

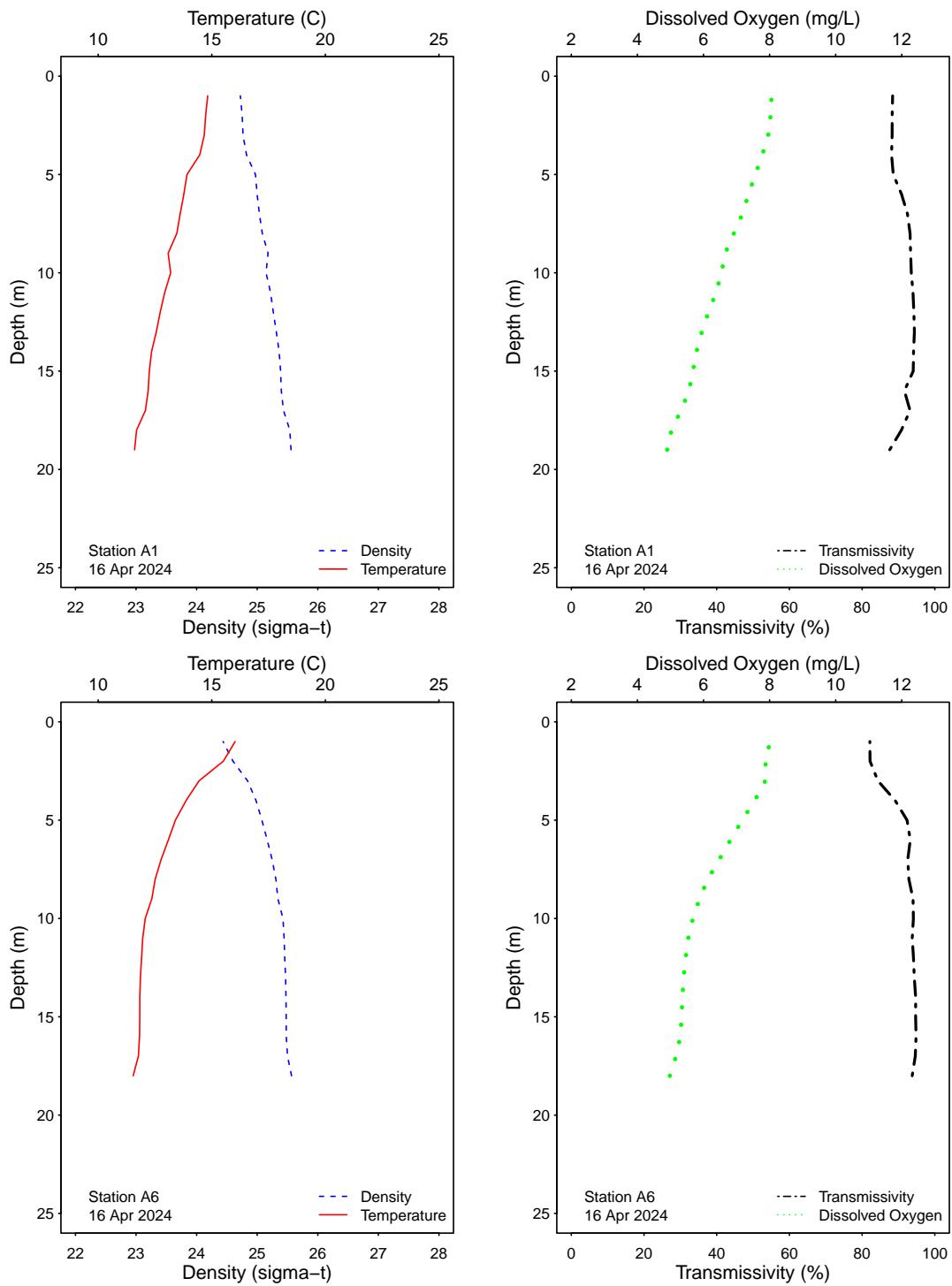


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

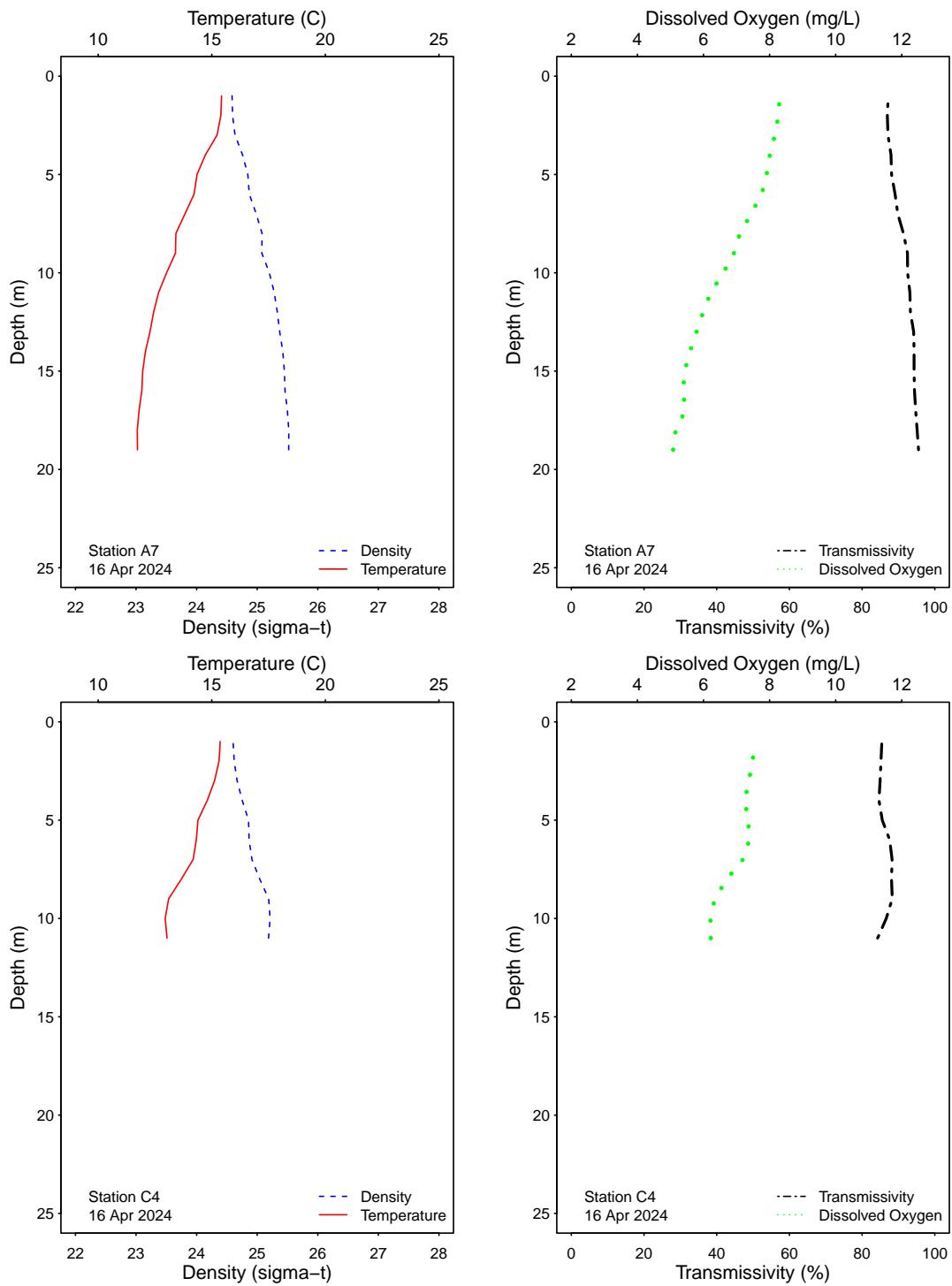


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

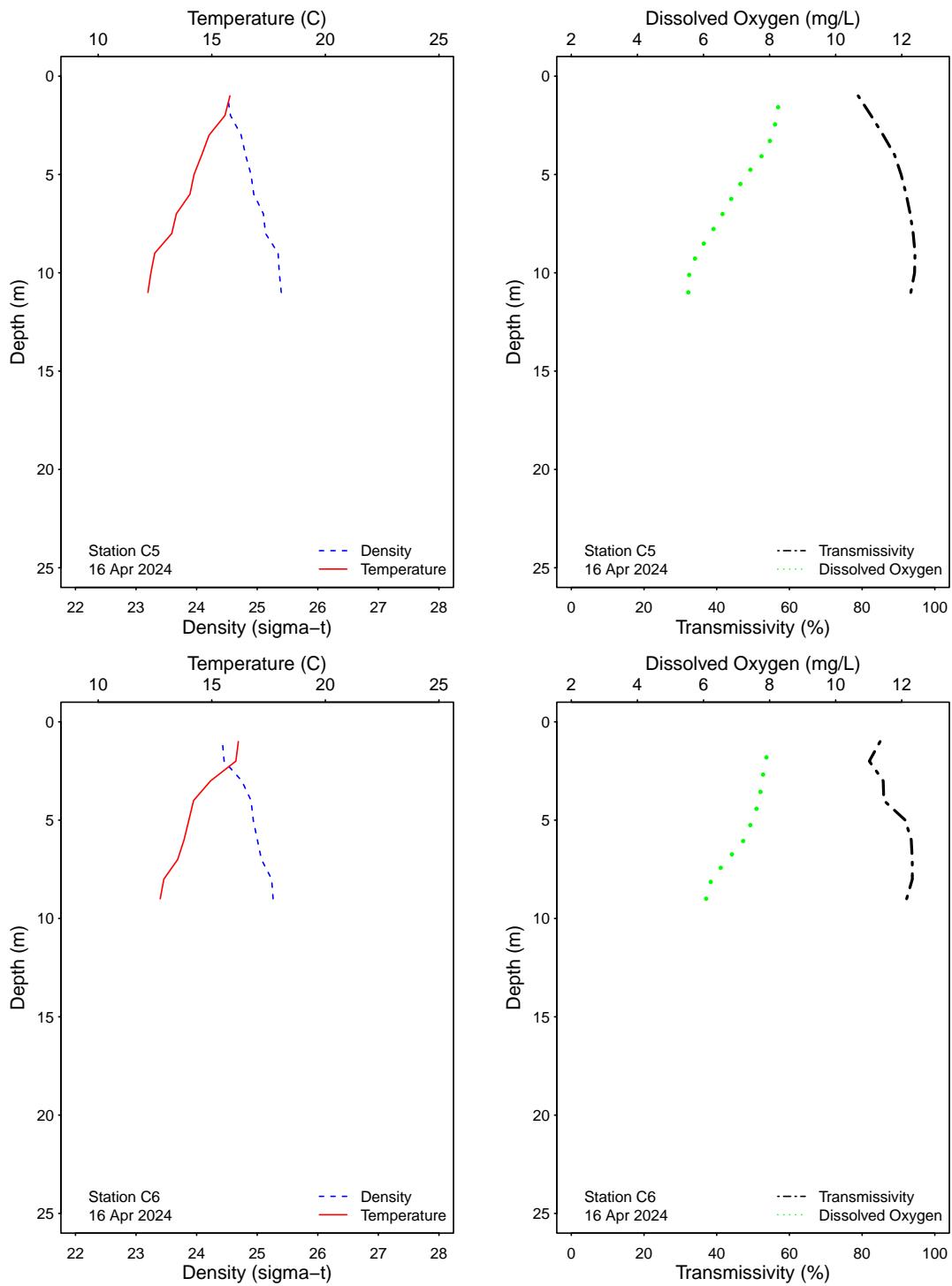


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

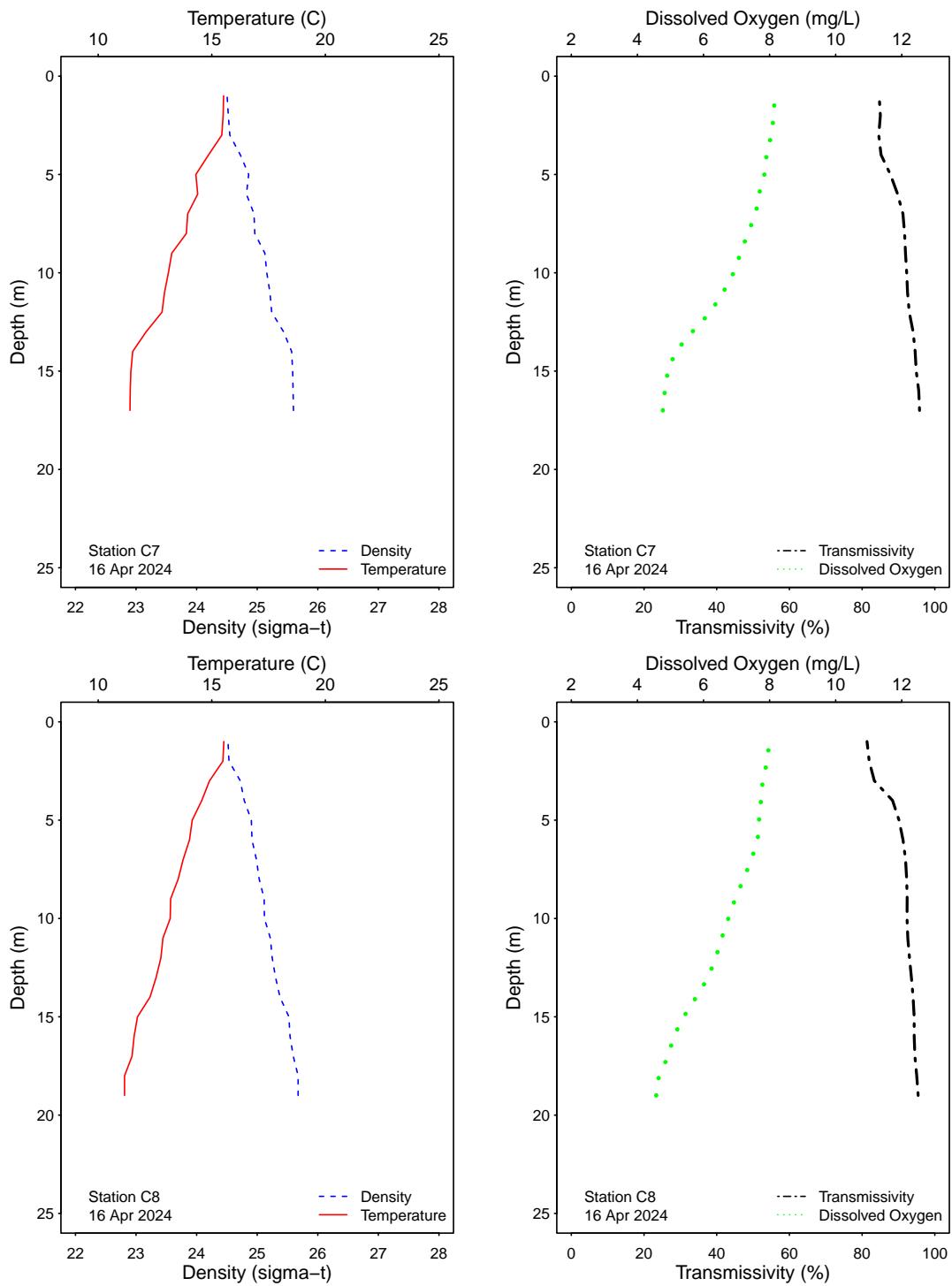


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

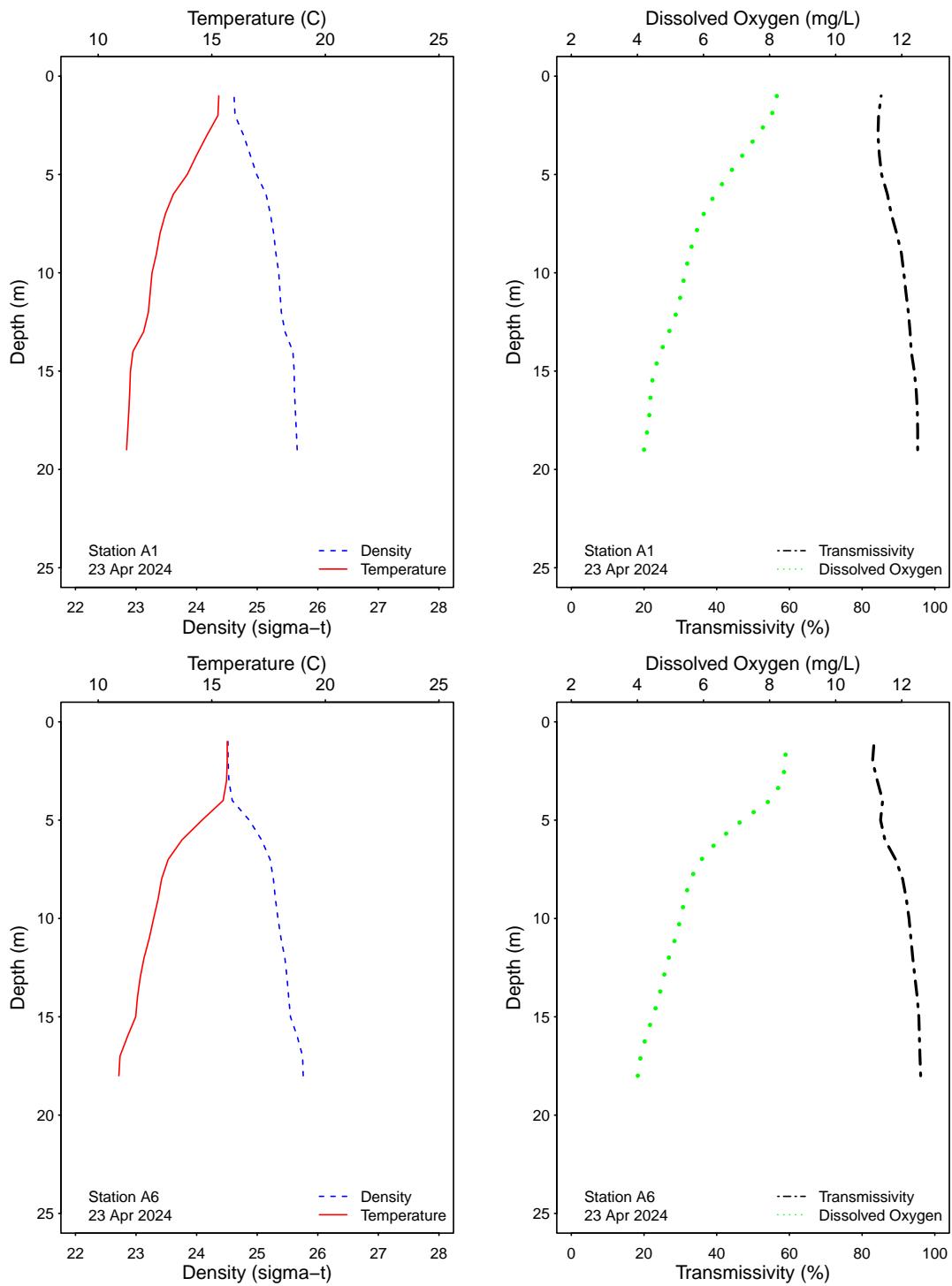


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

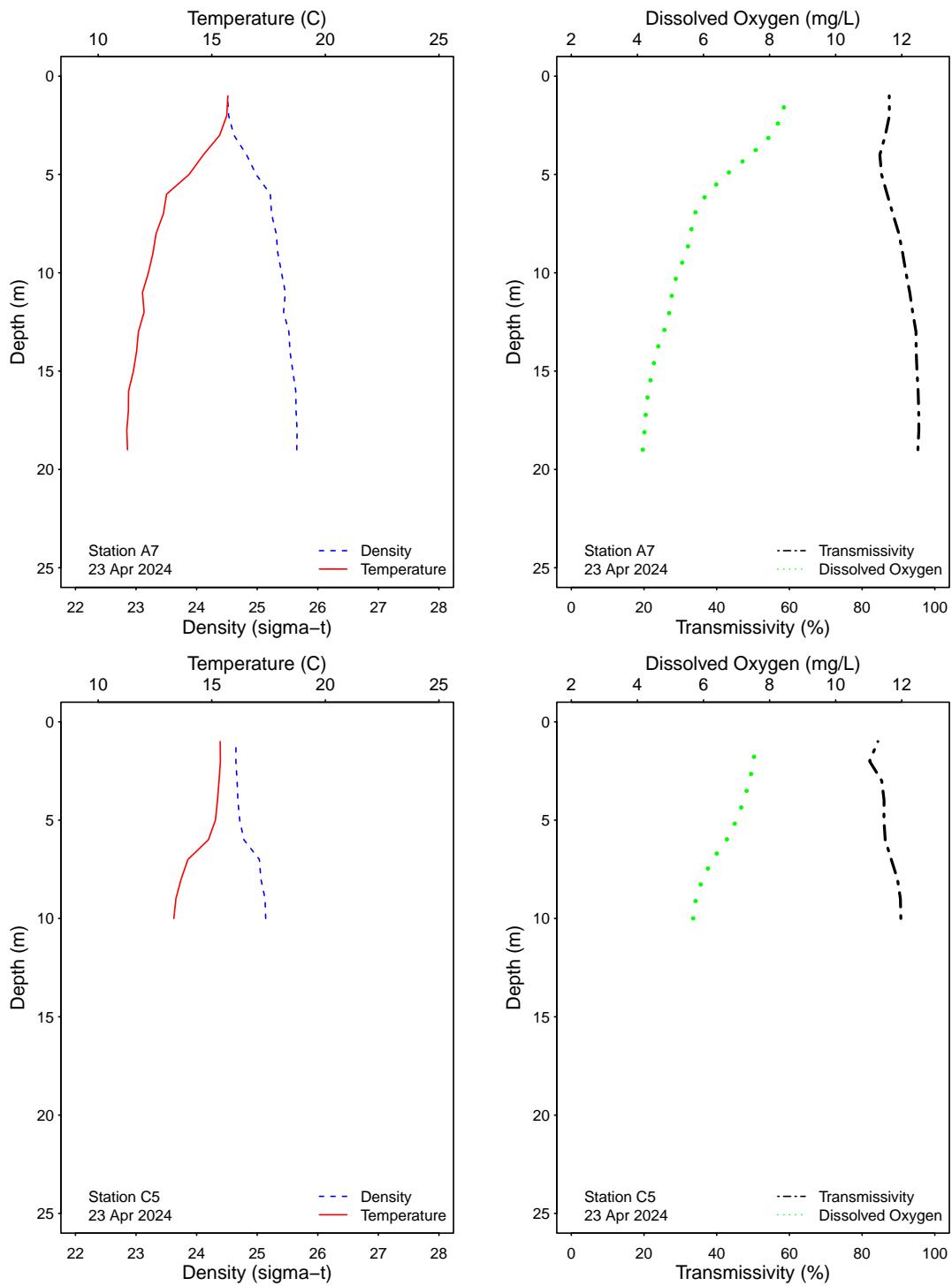


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

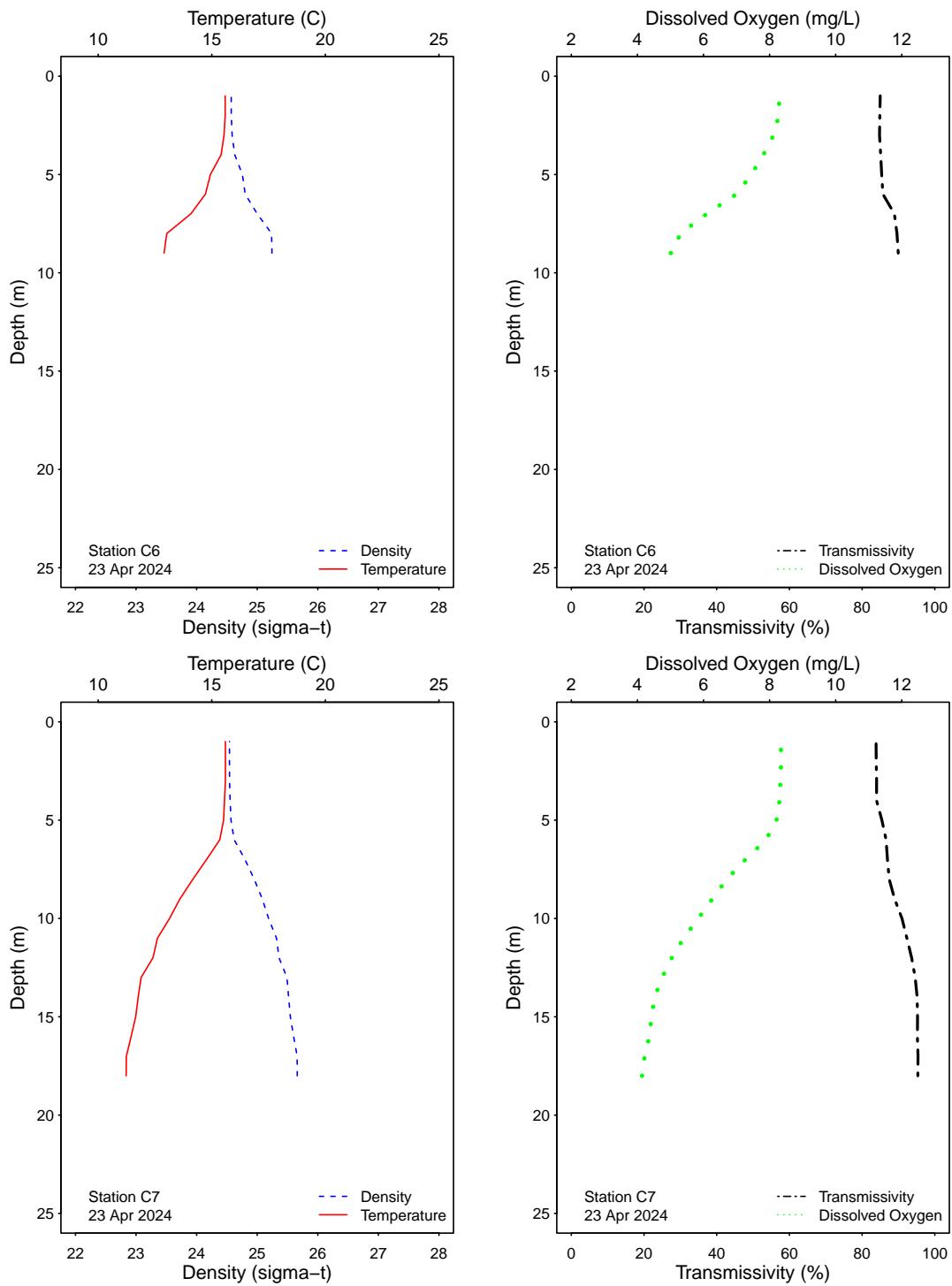


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

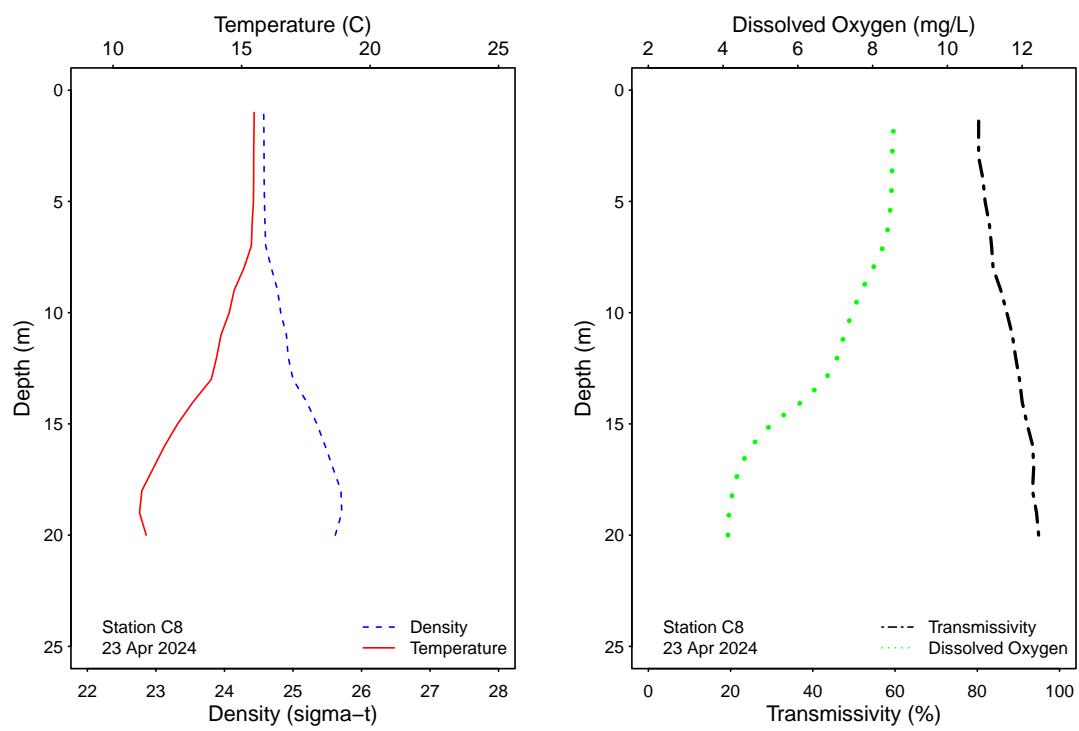


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

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APPENDIX A

Quality Assurance

Table A.1

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

Station	Date	Depth	Analyst	Procedure	Total	Fecal	Enter
A7	02 Apr 2024	18	KA,KT,JF,BS/	LAB DUPLICATE	46	6	2
A7	09 Apr 2024	18	BS,KA,KT/KA	LAB DUPLICATE	10	2	2
A7	16 Apr 2024	18	JF,KA,KT,ADG	LAB DUPLICATE	32	14	2
A7	23 Apr 2024	18	KA,JF,KT,BS/	LAB DUPLICATE	16	4	2
C7	02 Apr 2024	18	KA,KT,JF,BS/	LAB DUPLICATE	12	2	2
C7	09 Apr 2024	18	BS,KA,KT/KA	LAB DUPLICATE	98	24	2
C7	16 Apr 2024	18	JF,KA,KT,ADG	LAB DUPLICATE	6	4	2
C7	23 Apr 2024	18	KA,JF,KT,BS/	LAB DUPLICATE	4	2	2
C8	02 Apr 2024	12	KA,KT,JF,BS/	LAB DUPLICATE	44	4	2
C8	09 Apr 2024	12	BS,KA,KT/KA	LAB DUPLICATE	16	2	2
C8	16 Apr 2024	12	JF,KA,KT,ADG	LAB DUPLICATE	2	2	2
C8	23 Apr 2024	12	KA,JF,KT,BS/	LAB DUPLICATE	2	2	2
D12	03 Apr 2024		KT, JF/KT	LAB DUPLICATE	4	2	2
D12	10 Apr 2024		KT,KA/KT	LAB DUPLICATE	20	6	2
D12	17 Apr 2024		KT,KA/KT	LAB DUPLICATE	2	2	2
D12	24 Apr 2024		KA,KT/JF	LAB DUPLICATE	20	2	2

ns = not sampled

ND = no data

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APPENDIX B

Quality Assurance

Shore Stations

Table B.1

Summary of compliance with the Ocean Plan's 6-week 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 6 weeks unless otherwise noted (*). Values >30 CFU/100 mL exceed the standard.

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
01 Apr 2024	2	3	3	5	5	6	6	5
02 Apr 2024	2	3	3	5	5	6	6	5
03 Apr 2024	2	2	2	3	3	3	3	3
04 Apr 2024	2	2	2	3	3	3	3	3
05 Apr 2024	2	2	2	3	3	3	3	3
06 Apr 2024	2	2	2	3	3	3	3	3
07 Apr 2024	2	2	2	3	3	3	3	3
08 Apr 2024	2	2	2	3	3	3	3	3
09 Apr 2024	2	2	2	3	3	3	3	3
10 Apr 2024	2	2	2	3	3	3	3	3
11 Apr 2024	2	2	2	3	3	3	3	3
12 Apr 2024	2	2	2	3	3	3	3	3
13 Apr 2024	2	2	2	3	3	3	3	3
14 Apr 2024	2	2	2	3	3	3	3	3
15 Apr 2024	2	2	2	3	3	3	3	3
16 Apr 2024	2	2	2	3	3	3	3	3
17 Apr 2024	2	2	2	3	3	3	3	3
18 Apr 2024	2	2	2	3	3	3	3	3
19 Apr 2024	2	2	2	3	3	3	3	3
20 Apr 2024	2	2	2	3	3	3	3	3
21 Apr 2024	2	2	2	3	3	3	3	3
22 Apr 2024	2	2	2	3	3	3	3	3
23 Apr 2024	2	2	2	3	3	3	3	3
24 Apr 2024	2	2	2	3	3	2	2	3
25 Apr 2024	2	2	2	3	3	2	2	3
26 Apr 2024	2	2	2	3	3	2	2	3
27 Apr 2024	2	2	2	3	3	2	2	3
28 Apr 2024	2	2	2	3	3	2	2	3
29 Apr 2024	2	2	2	3	3	2	2	3
30 Apr 2024	2	2	2	3	3	2	2	3

* Geometric mean calculated using n<5

Table B.2

Summary of compliance at the PLOO shore stations with the Ocean Plan's Statistical Threshold Value standard for *Enterococcus* bacteria, which states that *Enterococcus* density shall not exceed 110 CFU/100 mL in more than 10% of samples per month.

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
April	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table B.3

Summary of compliance with the Ocean Plan's 30-day Median standard for total coliform bacteria at the PLOO shore stations. Data are based on the median of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >70 CFU/100 mL exceed the standard.

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
01 Apr 2024	*13	*3	*3	*20	*13	*40	*23	*9
02 Apr 2024	*13	*3	*3	*20	*13	*40	*23	*9
03 Apr 2024	12	4	2	20	12	20	40	2
04 Apr 2024	12	4	2	20	12	20	40	2
05 Apr 2024	*13	*6	*2	*20	*14	*40	*60	*9
06 Apr 2024	*13	*6	*2	*20	*14	*40	*60	*9
07 Apr 2024	*13	*6	*2	*20	*14	*40	*60	*9
08 Apr 2024	*13	*6	*2	*20	*14	*40	*60	*9
09 Apr 2024	*13	*6	*2	*20	*14	*40	*60	*9
10 Apr 2024	12	4	2	20	12	20	40	16
11 Apr 2024	12	4	2	20	12	20	40	16
12 Apr 2024	*8	*6	*2	*20	*11	*20	*40	*18
13 Apr 2024	*8	*6	*2	*20	*11	*20	*40	*18
14 Apr 2024	*8	*6	*2	*20	*11	*20	*40	*18
15 Apr 2024	*8	*6	*2	*20	*11	*20	*40	*18
16 Apr 2024	*8	*6	*2	*20	*11	*20	*40	*18
17 Apr 2024	2	4	2	20	10	20	40	16
18 Apr 2024	2	4	2	20	10	20	40	16
19 Apr 2024	*2	*3	*2	*16	*9	*14	*40	*10
20 Apr 2024	*2	*3	*2	*16	*9	*14	*40	*10
21 Apr 2024	*2	*3	*2	*16	*9	*14	*40	*10
22 Apr 2024	*2	*3	*2	*16	*9	*14	*40	*10
23 Apr 2024	*2	*3	*2	*16	*9	*14	*40	*10
24 Apr 2024	2	2	2	20	12	20	40	16
25 Apr 2024	2	2	2	20	12	20	40	16
26 Apr 2024	*2	*3	*11	*16	*9	*14	*60	*12
27 Apr 2024	*2	*3	*11	*16	*9	*14	*60	*12
28 Apr 2024	*2	*3	*11	*16	*9	*14	*60	*12
29 Apr 2024	*2	*3	*11	*16	*9	*14	*60	*12
30 Apr 2024	*2	*3	*11	*16	*9	*14	*60	*12

* Median calculated using n<5

Table B.4

Summary of compliance at the PLOO shore stations with the Ocean Plan's Statistical Threshold Value for total coliform bacteria, which states that total coliform density shall not exceed 230 CFU/100 mL in more than 10% of samples per station, per month.

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
April	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Kelp Stations

Table B.5

Summary of compliance with the Ocean Plan's 6-week 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 6 weeks unless otherwise noted (*). Values >30 CFU/100 mL exceed the standard.

Date	A1	A6	A7	C4	C5	C6	C7	C8
01 Apr 2024	2	2	2	2	2	2	2	3
02 Apr 2024	2	2	2	2	2	2	2	3
03 Apr 2024	2	2	2	2	2	2	2	2
04 Apr 2024	2	2	2	2	2	2	2	2
05 Apr 2024	2	2	2	2	2	2	2	2
06 Apr 2024	2	2	2	2	2	2	2	2
07 Apr 2024	2	2	2	2	2	2	2	2
08 Apr 2024	2	2	2	2	2	2	2	2
09 Apr 2024	2	2	2	2	2	2	2	2
10 Apr 2024	2	2	2	2	2	2	2	2
11 Apr 2024	2	2	2	2	2	2	2	2
12 Apr 2024	2	2	2	2	2	2	2	2
13 Apr 2024	2	2	2	2	2	2	2	2
14 Apr 2024	2	2	2	2	2	2	2	2
15 Apr 2024	2	2	2	2	2	2	2	2
16 Apr 2024	2	2	2	2	2	2	2	2
17 Apr 2024	2	2	2	2	2	2	2	2
18 Apr 2024	2	2	2	2	2	2	2	2
19 Apr 2024	2	2	2	2	2	2	2	2
20 Apr 2024	2	2	2	2	2	2	2	2
21 Apr 2024	2	2	2	2	2	2	2	2
22 Apr 2024	2	2	2	2	2	2	2	2
23 Apr 2024	2	2	2	2	2	2	2	2
24 Apr 2024	2	2	2	2	2	2	2	2
25 Apr 2024	2	2	2	2	2	2	2	2
26 Apr 2024	2	2	2	2	2	2	2	2
27 Apr 2024	2	2	2	2	2	2	2	2
28 Apr 2024	2	2	2	2	2	2	2	2
29 Apr 2024	2	2	2	2	2	2	2	2
30 Apr 2024	2	2	2	2	2	2	2	2

* Geometric mean calculated using n<5

Table B.6

Summary of compliance at the PLOO shore stations with the Ocean Plan's Statistical Threshold Value standard for *Enterococcus* bacteria, which states that *Enterococcus* density shall not exceed 110 CFU/100 mL in more than 10% of samples per month.

Date	A1	A6	A7	C4	C5	C6	C7	C8
April	IC							

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table B.7

Summary of compliance with the Ocean Plan's 30-day Median" standard for total coliform bacteria at the PLOO kelp stations. Data are based on the median of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >70 CFU/100 mL exceed the standard.

Date	A1	1m	12m	18m	1m	12m	18m	1m	12m	18m	C4	C5	C6	C7	C8
	*2	*2	*31	*2	*7	*47	*2	*4	*9	*2	*2	*5	*2	*3	*2
01 Apr 2024	*2	2	32	2	12	34	2	6	16	2	2	6	2	2	*6
02 Apr 2024	2	2	32	2	12	34	2	6	16	2	2	6	2	2	6
03 Apr 2024	2	2	32	2	12	34	2	6	16	2	2	6	2	2	6
04 Apr 2024	2	2	32	2	12	34	2	6	16	2	2	6	2	2	4
05 Apr 2024	*3	*4	*33	*2	*14	*47	*2	*6	*19	*2	*2	*6	*2	*4	*12
06 Apr 2024	*3	*4	*33	*2	*14	*47	*2	*6	*19	*2	*2	*6	*2	*4	*8
07 Apr 2024	*3	*4	*33	*2	*14	*47	*2	*6	*19	*2	*2	*6	*2	*4	*12
08 Apr 2024	*3	*4	*33	*2	*14	*47	*2	*6	*19	*2	*2	*6	*2	*4	*12
09 Apr 2024	2	6	30	2	16	38	2	6	16	2	2	6	2	2	8
10 Apr 2024	2	6	30	2	16	38	2	6	16	2	2	6	2	2	8
11 Apr 2024	*3	*7	*30	*2	*17	*49	*2	*6	*18	*2	*2	*4	*2	*2	*12
12 Apr 2024	*3	*7	*30	*2	*17	*49	*2	*6	*18	*2	*2	*4	*2	*2	*12
13 Apr 2024	*3	*7	*30	*2	*17	*49	*2	*6	*18	*2	*2	*4	*2	*2	*12
14 Apr 2024	*3	*7	*30	*2	*17	*49	*2	*6	*18	*2	*2	*4	*2	*2	*12
15 Apr 2024	*3	*7	*30	*2	*17	*49	*2	*6	*18	*2	*2	*4	*2	*2	*12
16 Apr 2024	2	6	24	2	16	38	2	6	22	2	2	6	2	2	8
17 Apr 2024	2	6	24	2	16	38	2	6	22	2	2	6	2	2	8
18 Apr 2024	*3	*7	*30	*2	*17	*27	*2	*6	*28	*2	*2	*6	*2	*2	*12
19 Apr 2024	*3	*7	*30	*2	*17	*27	*2	*6	*28	*2	*2	*6	*2	*2	*12
20 Apr 2024	*3	*7	*30	*2	*17	*27	*2	*6	*28	*2	*2	*6	*2	*2	*12
21 Apr 2024	*3	*7	*30	*2	*17	*27	*2	*6	*28	*2	*2	*6	*2	*2	*12
22 Apr 2024	*3	*7	*30	*2	*17	*27	*2	*6	*28	*2	*2	*6	*2	*2	*12
23 Apr 2024	2	6	24	2	16	18	2	6	22	2	2	6	2	2	8
24 Apr 2024	2	6	24	2	16	18	2	6	22	2	2	6	2	2	8
25 Apr 2024	*2	*5	*16	*2	*9	*17	*2	*6	*18	*2	*2	*6	*2	*2	*12
26 Apr 2024	*2	*5	*16	*2	*9	*17	*2	*6	*18	*2	*2	*6	*2	*2	*12
27 Apr 2024	*2	*5	*16	*2	*9	*17	*2	*6	*18	*2	*2	*6	*2	*2	*12
28 Apr 2024	*2	*5	*16	*2	*9	*17	*2	*6	*18	*2	*2	*6	*2	*2	*12
29 Apr 2024	*2	*5	*16	*2	*9	*17	*2	*6	*18	*2	*2	*6	*2	*2	*12
30 Apr 2024	*2	*5	*16	*2	*9	*17	*2	*6	*18	*2	*2	*6	*2	*2	*12

* Median calculated using n<5

Table B.8

Summary of compliance at the PLOO kelp stations with the Ocean Plan's Statistical Threshold Value for total coliform bacteria, which states that total coliform density shall not exceed 230 CFU/100 mL in more than 10

Date	A1			A6			A7			C4			C5			C6			C7			C8		
	1m	12m	18m	1m	12m	18m	1m	12m	18m	1m	3m	9m	1m	3m	9m	1m	3m	9m	1m	12m	18m	1m	12m	18m
April	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data