

SOUTH BAY OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT

SOUTH BAY WATER RECLAMATION PLANT

NPDES Permit No. CA0109045
SDRWQCB Order No. R9-2021-0011

JULY 2024

Environmental Monitoring and Technical Services
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August 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 July 2024 Monthly Receiving Waters Monitoring Report for the South Bay Ocean Outfall, South Bay Water Reclamation Plant as required per Order No. R9-2021-0011, NPDES Permit No. CA0109045.

This report includes raw ocean monitoring data and summaries of water quality parameters and ocean conditions measured during the month for the South Bay outfall region. Also included are summaries of compliance with the bacterial water-contact standards specified in the California Ocean Plan. These data are also presented in the monthly report submitted by the International Boundary and Water Commission, U.S. Section for discharge from the South Bay International Wastewater Treatment Plant (Order No. R9-2021-0001, NPDES Permit No. CA0108928).

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

Sincerely,



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

PV/rk

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

INTRODUCTION

Monthly reports of water quality and ocean conditions from Playa Blanco, Mexico to Coronado, USA are submitted to the San Diego Regional Water Quality Control Board and U.S. EPA Region 9 in accordance with Order No. R9-2021-0011, NPDES Permit No. CA0109045, for the South Bay Water Reclamation Plant (SBWRP), South Bay Ocean Outfall (SBOO). 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 SBWRP are presented in separate reports.

MATERIALS AND METHODS

Shore Stations

Water quality monitoring was conducted at 11 stations located along the shore from Playa Blanca, Mexico to Coronado, USA (see station locations map). Three sites are located south of the international border (stations S0, S2, S3), while eight sites are in the United States (stations S4–S6 and S8–S12).

Seawater samples were collected from the surf zone at each station on a weekly basis. These samples were subsequently transported to the City's Marine Microbiology Laboratory and analyzed for the presence of total coliform, fecal coliform, and *Enterococcus* bacteria. Visual observations of water color and clarity, surf height, human or animal activity, and weather conditions were recorded at the time of sample collection. Wind speed and direction were measured using a hand-held anemometer with a compass.

Kelp Bed Stations

Seven kelp bed and other nearshore stations (I19, I24, I25, I26, I32, I39, I40; collectively referred to as “kelp” stations herein) were sampled weekly according to NPDES permit specifications. Six stations (I19, I24, I25, I26, I32, I40) are located along the 9-m depth contour, and one (I39) is located along the 18-m depth contour. Three of these stations, I25, I26, and I39, were selected based on their proximity to suitable substrates for the Imperial Beach kelp bed (see station locations map); however, this kelp bed has been historically transient and variable in terms of size and density. Thus, these three stations are only occasionally located within an area where kelp is actually found.

Routine monitoring at each kelp site consists of collecting seawater samples at three discrete depths for bacteriological analyses (total coliforms, fecal coliforms, and *Enterococcus* bacteria) and generating water column profiles of various physical/chemical parameters, including water temperature, salinity, density, dissolved oxygen, pH, chlorophyll *a*, and transmissivity. Visual observations of weather and water conditions are also recorded at all stations.

Seawater samples at the kelp bed stations are primarily collected using a CTD-integrated rosette sampler with Niskin bottles. Aliquots for bacteriological analyses were drawn from these bottles into sterile sample bottles for processing at the City's Marine Microbiology Laboratory. Water column profiles of the various physical/chemical parameters were taken using a CTD. The CTD collected these physical/chemical data at a rate ≥ 4 scans per second. The data were then internally averaged using the CTD proprietary software, Seasoft, to create water column profiles equivalent to one reading per meter. Additionally, CTD profile data for each water sample depth are presented

with the bacteriological data.

Offshore Stations

Quarterly offshore water quality sampling is typically conducted over three days during February, May, August, and November for a total of 40 stations during each month (see station locations map). These offshore stations (I1–I40) are arranged in a grid surrounding the discharge site, and are generally located along the 9, 19, 28, 38, and 55-m depth contours. The seven offshore sites designated as kelp bed stations (described above) are included as part of the quarterly offshore water quality sampling, however the data from these seven stations are reported within the kelp bed station section of the report with the other days of kelp bed water quality sampling. Monitoring at all sites included measurements of various physical/chemical parameters, including water temperature, salinity, density, dissolved oxygen, pH, chlorophyll *a*, transmissivity, and chromomorph dissolved organic matter (CDOM). Visual observations of weather and water conditions were also recorded at all stations. Seawater samples for the analysis of indicator bacteria were collected at 28 of the stations.

At these offshore stations, water samples for bacteriological analyses were collected using a rosette sampler with Niskin bottles. Measurements of the physical/chemical parameters listed above were taken using a Sea-Bird CTD. Additionally, CTD profile data for depths closest to those at which bacteriological samples were collected were extracted from the CTD profiles and are 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 water-contact standards specified in the 2019 California Ocean Plan (Ocean Plan). The six standards are defined as follows:

Water-Contact Objectives

Fecal coliform:

- (1) The 30-day geometric mean (GM) of fecal coliform density not to exceed 200 CFU/100 mL, calculated based on the five most recent samples from each site
- (2) The single sample maximum (SSM) not to exceed 400 CFU/100 mL

Enterococci:

- (1) The six-week rolling GM of *Enterococci* not to exceed 30 CFU/100 mL, calculated weekly
- (2) The statistical threshold value (STV) of 110 CFU/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner

Shellfish Harvesting Standards

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.

Total coliform:

- (1) The median total coliform density shall not exceed 70 CFU/100 mL
- (2) The STV of 230 CFU/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner

Compliance with the seven Ocean Plan standards are summarized below for the stations located in USA waters. In contrast, no such compliance summaries are presented for the three shore stations located in Mexican waters south of the International Border (i.e., S0, S2, and S3) since this region is not subject to the Ocean Plan standards.

Quality controls of bacteriological data include laboratory and field duplicate analyses. Laboratory duplicates are performed on approximately 10% of the water quality samples, while field duplicates are performed six times a month (see Appendix A). Laboratory duplicates represent two aliquots of the original sample that are split in the laboratory and analyzed by the same analyst using identical procedures within the same analytical run. The results of these analyses provide a measure of intra-analyst precision. In contrast, field duplicates represent two separate samples collected at the same time from the same site, which are handled under identical circumstances and treated exactly the same throughout field and lab procedures. The results of these analyses provide a measure of precision associated with sample collection, preservation, storage, and lab procedures. The sign test (see Gilbert, 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

➤ Shoreline Water Quality Sampling

- Due to site access restrictions in Mexico, the South Bay shoreline sampling is typically carried out on the same day each week (i.e., Tuesday) to coordinate sampling between the Mexican and USA based stations. Seawater samples at the three shore stations located south of the USA/Mexico border (i.e., stations S0, S2 and S3) are presently collected by the Comisión Internacional de Límites y Aguas (CILA) and transported to the USIBWC for subsequent delivery to the City's Marine Microbiology Lab, while samples from the eight stations located in USA waters are sampled by City staff.
- During July, each of the eight shore stations located north of the border was out of compliance with the 2019 California Ocean Plan (Ocean Plan) water contact standards on one or more days as follows:
 - The 30-day running geometric mean standard for fecal coliforms was exceeded at stations S4, S5, S6, S10, S11, and S12.
 - The single sample maximum (SSM) standard for fecal coliforms was exceeded at stations S4, S5, S6, S10, S11, and S12.
 - The 6-week running geometric mean standard for *Enterococcus* was exceeded at stations S4, S5, S6, S10, S11, and S12.
 - The statistical threshold value (STV) standard for *Enterococcus* was exceeded at stations S4, S5, S6, S10, S11, and S12.

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

- The 30-day running median standard for total coliforms was exceeded at stations S4, S5, S6, S8, S9, S10, S11, and S12.
 - The STV standard for total coliforms was exceeded at stations S4, S5, S6, S9, S10, S11, and S12.
- A sewage-like odor was observed at stations S5, S6, and S11 on one or more days in July.
- Historical analyses of Ocean Plan compliance rates for the South Bay outfall shore and kelp monitoring stations, combined with the results of satellite imagery data, suggest that outflows from the Tijuana River and Los Buenos Creek, as well as surface runoff during or after rain events (storms), are likely to be the cause of impacted water quality along the shore and in near shore recreational waters in the South Bay region. 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 Water Quality Sampling**

- The seven kelp bed water quality stations (I19, I24, I25, I26, I32, I39, I40) were sampled on July 1, 8, 16, 23, and 31.
- During July, six of the seven kelp bed stations were out of compliance with the various 2019 Ocean Plan water contact standards on one or more days as follows:
 - The 30-day running geometric mean standard for fecal coliforms was exceeded at station I40.
 - The SSM standard for fecal coliforms was exceeded at stations I19, I32, and I40.
 - The 6-week running geometric mean standard for *Enterococcus* was exceeded at stations I19, I32, and I40.
 - The STV standard for *Enterococcus* was exceeded at stations I32, and I40.
 - The 30-day running median standard for total coliforms was exceeded at stations I19, I24, I25, I26, I32, and I40.
 - The STV standard for total coliforms was exceeded at stations I19, I32, and I40.
- Water column temperatures ranged from 11.07 to 20.73°C. The difference between surface and bottom waters ranged from 2.19 to 9.39°C.
- Concentrations of chlorophyll *a* ranged from 0.49 to 25.50 µg/L at the kelp bed stations.
- A sewage-like odor was observed at station I40 on one or more days in July.

➤ **Offshore Water Quality Sampling**

- Quarterly sampling was not conducted during July at the offshore stations. The next quarterly sampling is scheduled for August 2024.



TABLES AND FIGURES

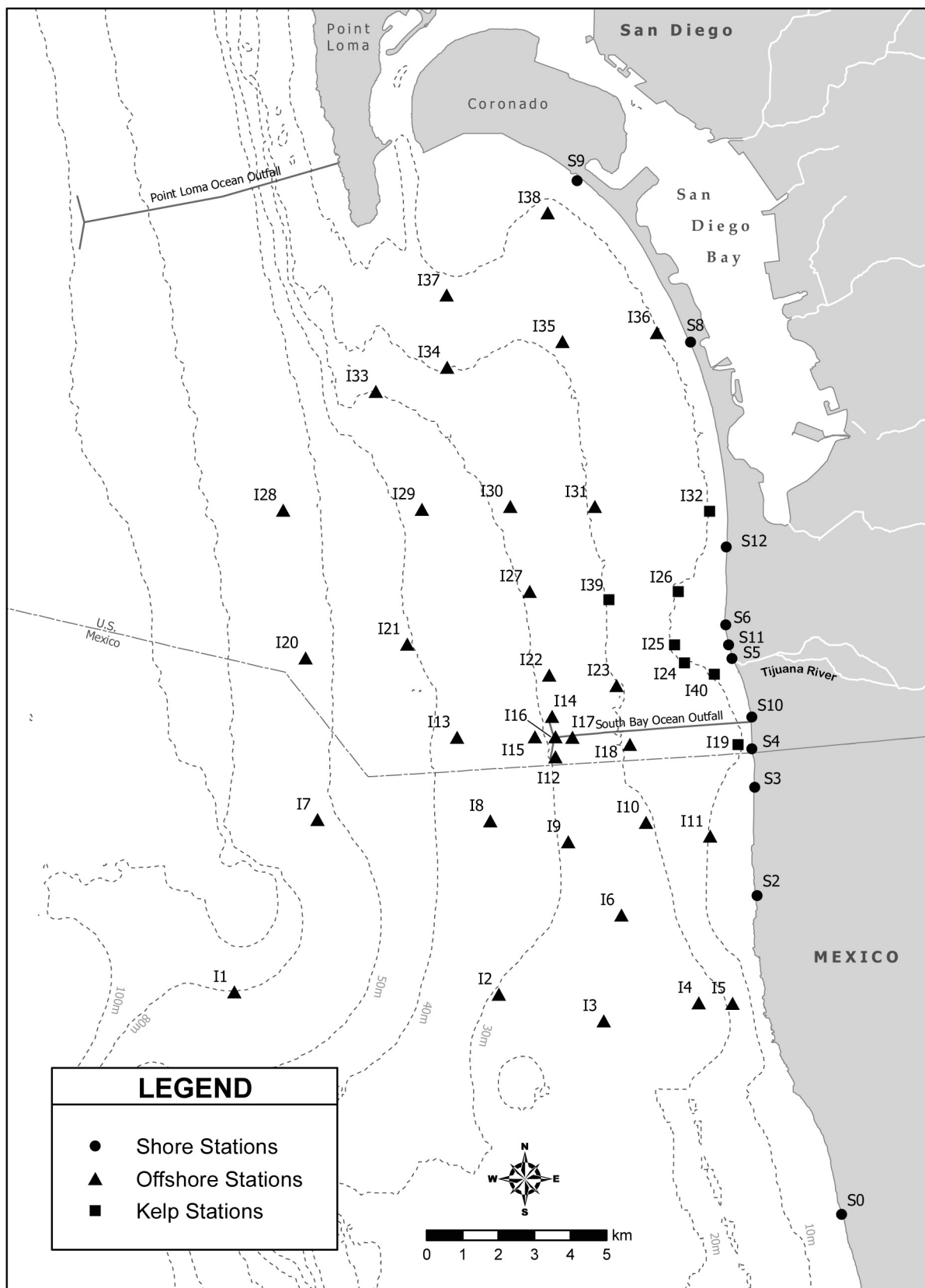


Figure 1.1 Station Map

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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 SBOO 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	S4	S5	S6	S8	S9	S10	S11	S12
01 Jul 2024	*2755	*11742	*1621	*4	*9	*1242	*7444	*198
02 Jul 2024	896	9467	929	4	6	703	3453	144
03 Jul 2024	896	9467	929	4	6	703	3453	144
04 Jul 2024	*832	*8922	*490	*2	*4	*572	*2782	*48
05 Jul 2024	*832	*8922	*490	*2	*4	*572	*2782	*48
06 Jul 2024	*832	*8922	*490	*2	*4	*572	*2782	*48
07 Jul 2024	*832	*8922	*490	*2	*4	*572	*2782	*48
08 Jul 2024	*832	*8922	*490	*2	*4	*572	*2782	*48
09 Jul 2024	1116	9467	929	2	8	1033	3727	135
10 Jul 2024	1116	9467	929	2	8	1033	3727	135
11 Jul 2024	*645	*8922	*490	*2	*7	*572	*2782	*122
12 Jul 2024	*645	*8922	*490	*2	*7	*572	*2782	*122
13 Jul 2024	*645	*8922	*490	*2	*7	*572	*2782	*122
14 Jul 2024	*645	*8922	*490	*2	*7	*572	*2782	*122
15 Jul 2024	*645	*8922	*490	*2	*7	*572	*2782	*122
16 Jul 2024	444	9467	381	2	6	797	3419	54
17 Jul 2024	444	9467	381	2	6	797	3419	54
18 Jul 2024	444	9467	381	2	6	797	3419	54
19 Jul 2024	444	9467	381	2	6	797	3419	54
20 Jul 2024	*206	*9118	*1192	*2	*7	*499	*3661	*122
21 Jul 2024	*206	*9118	*1192	*2	*7	*499	*3661	*122
22 Jul 2024	*206	*9118	*1192	*2	*7	*499	*3661	*122
23 Jul 2024	162	8495	1891	2	6	346	4642	262
24 Jul 2024	162	8495	1891	2	6	346	4642	262
25 Jul 2024	*122	*7792	*1192	*2	*5	*660	*3661	*249
26 Jul 2024	*122	*7792	*1192	*2	*5	*660	*3661	*249
27 Jul 2024	*122	*7792	*1192	*2	*5	*660	*3661	*249
28 Jul 2024	*122	*7792	*1192	*2	*5	*660	*3661	*249
29 Jul 2024	*122	*7792	*1192	*2	*5	*660	*3661	*249
30 Jul 2024	90	8495	1414	2	5	409	2478	499
31 Jul 2024	90	8495	1414	2	5	409	2478	499

* Geometric mean calculated using n<5

Table 2.2

Summary of compliance at the SBOO 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	S4	S5	S6	S8	S9	S10	S11	S12
02 Jul 2024	IC	E	IC	IC	IC	IC	IC	IC
09 Jul 2024	E	E	E	IC	IC	E	E	E
16 Jul 2024	IC	E	IC	IC	IC	E	E	IC
23 Jul 2024	IC	E	E	IC	IC	IC	E	E
30 Jul 2024	IC	E	E	IC	IC	IC	E	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.3

Summary of compliance with the Ocean Plan's 6-week Geometric Mean standard for *Enterococcus* at the SBOO 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	S4	S5	S6	S8	S9	S10	S11	S12
01 Jul 2024	881	6031	529	6	7	853	3611	164
02 Jul 2024	881	8516	519	6	7	986	3844	94
03 Jul 2024	881	8516	519	6	7	986	3844	94
04 Jul 2024	881	8516	519	6	7	986	3844	94
05 Jul 2024	881	8516	519	6	7	986	3844	94
06 Jul 2024	881	8516	519	6	7	986	3844	94
07 Jul 2024	881	8516	519	6	7	986	3844	94
08 Jul 2024	881	8516	519	6	7	986	3844	94
09 Jul 2024	559	8516	1640	8	6	782	3962	336
10 Jul 2024	559	8516	1640	8	6	782	3962	336
11 Jul 2024	559	8516	1640	8	6	782	3962	336
12 Jul 2024	559	8516	1640	8	6	782	3962	336
13 Jul 2024	559	8516	1640	8	6	782	3962	336
14 Jul 2024	559	8516	1640	8	6	782	3962	336
15 Jul 2024	559	8516	1640	8	6	782	3962	336
16 Jul 2024	505	9112	802	4	4	903	3751	79
17 Jul 2024	505	9112	802	4	4	903	3751	79
18 Jul 2024	505	9112	802	4	4	903	3751	79
19 Jul 2024	505	9112	802	4	4	903	3751	79
20 Jul 2024	505	9112	802	4	4	903	3751	79
21 Jul 2024	505	9112	802	4	4	903	3751	79
22 Jul 2024	505	9112	802	4	4	903	3751	79
23 Jul 2024	149	7062	802	4	3	317	3751	159
24 Jul 2024	149	7062	802	4	3	317	3751	159
25 Jul 2024	149	7062	802	4	3	317	3751	159
26 Jul 2024	149	7062	802	4	3	317	3751	159
27 Jul 2024	149	7062	802	4	3	317	3751	159
28 Jul 2024	149	7062	802	4	3	317	3751	159
29 Jul 2024	149	7062	802	4	3	317	3751	159
30 Jul 2024	112	7617	968	4	3	250	3188	267
31 Jul 2024	112	7617	968	4	3	250	3188	267

* Geometric mean calculated using n<5

Table 2.4

Summary of compliance at the SBOO 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	S4	S5	S6	S8	S9	S10	S11	S12
July	E	E	E	IC	IC	E	E	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.5

Summary of compliance with the Ocean Plan's 30-day Median standard for total coliform bacteria at the SBOO 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	S4	S5	S6	S8	S9	S10	S11	S12
01 Jul 2024	*14500	*16000	*16000	*110	*120	*14500	*16000	*1500
02 Jul 2024	13000	16000	16000	20	40	13000	16000	200
03 Jul 2024	13000	16000	16000	20	40	13000	16000	200
04 Jul 2024	*10300	*16000	*8330	*20	*30	*8270	*14500	*180
05 Jul 2024	*10300	*16000	*8330	*20	*30	*8270	*14500	*180
06 Jul 2024	*10300	*16000	*8330	*20	*30	*8270	*14500	*180
07 Jul 2024	*10300	*16000	*8330	*20	*30	*8270	*14500	*180
08 Jul 2024	*10300	*16000	*8330	*20	*30	*8270	*14500	*180
09 Jul 2024	11000	16000	16000	20	40	16000	16000	200
10 Jul 2024	11000	16000	16000	20	40	16000	16000	200
11 Jul 2024	*7800	*16000	*8330	*20	*30	*8270	*14500	*1480
12 Jul 2024	*7800	*16000	*8330	*20	*30	*8270	*14500	*1480
13 Jul 2024	*7800	*16000	*8330	*20	*30	*8270	*14500	*1480
14 Jul 2024	*7800	*16000	*8330	*20	*30	*8270	*14500	*1480
15 Jul 2024	*7800	*16000	*8330	*20	*30	*8270	*14500	*1480
16 Jul 2024	4600	16000	1400	20	40	16000	16000	200
17 Jul 2024	4600	16000	1400	20	40	16000	16000	200
18 Jul 2024	4600	16000	1400	20	40	16000	16000	200
19 Jul 2024	4600	16000	1400	20	40	16000	16000	200
20 Jul 2024	*2600	*16000	*8700	*20	*120	*8270	*16000	*1500
21 Jul 2024	*2600	*16000	*8700	*20	*120	*8270	*16000	*1500
22 Jul 2024	*2600	*16000	*8700	*20	*120	*8270	*16000	*1500
23 Jul 2024	600	16000	16000	20	200	540	16000	2800
24 Jul 2024	600	16000	16000	20	200	540	16000	2800
25 Jul 2024	*510	*16000	*8700	*110	*200	*8270	*16000	*8100
26 Jul 2024	*510	*16000	*8700	*110	*200	*8270	*16000	*8100
27 Jul 2024	*510	*16000	*8700	*110	*200	*8270	*16000	*8100
28 Jul 2024	*510	*16000	*8700	*110	*200	*8270	*16000	*8100
29 Jul 2024	*510	*16000	*8700	*110	*200	*8270	*16000	*8100
30 Jul 2024	420	16000	16000	20	200	540	16000	16000
31 Jul 2024	420	16000	16000	20	200	540	16000	16000

* Median calculated using n<5

Table 2.6

Summary of compliance at the SBOO 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 month.

Date	S4	S5	S6	S8	S9	S10	S11	S12
July	E	E	E	IC	E	E	E	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.7

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

Station	Date	Time	Total	Fecal	Entero
S0	02 Jul 2024	950	>16000	>12000	>12000
S0	09 Jul 2024	925	860	100	180e
S0	16 Jul 2024	1125	5000	1200e	980
S0	23 Jul 2024	1050	4000	1000e	580
S0	30 Jul 2024	825	11000	2400e	1800e
S10	02 Jul 2024	809	540	72	110
S10	09 Jul 2024	759	>16000	11000	3000e
S10	16 Jul 2024	816	>16000	3000e	1800e
S10	23 Jul 2024	758	260e	80	16e
S10	30 Jul 2024	818	200e	60	60e
S11	02 Jul 2024	1006	1600e	160e	320e
S11	09 Jul 2024	930	>16000	>12000	>12000
S11	16 Jul 2024	952	>16000	7800	3600e
S11	23 Jul 2024	928	>16000	>12000	>12000
S11	30 Jul 2024	945	5200	520	1200e
S12	02 Jul 2024	1030	160e	40e	42
S12	09 Jul 2024	954	>16000	8600	8400
S12	16 Jul 2024	1015	<200	<2	2e
S12	23 Jul 2024	954	>16000	5600	3400e
S12	30 Jul 2024	1007	>16000	8000	6000
S2	02 Jul 2024	1055	<20	<2	<2
S2	09 Jul 2024	1035	20e	2e	<2
S2	16 Jul 2024	940	1600e	220e	780
S2	23 Jul 2024	1144	<200	<2	<2
S2	30 Jul 2024	940	<20	2e	4e
S3	02 Jul 2024	1030	16e	2e	<2
S3	09 Jul 2024	1000	38e	10e	4e
S3	16 Jul 2024	1048	60e	4e	46
S3	23 Jul 2024	1215	600e	48	12e
S3	30 Jul 2024	905	200e	60e	6e
S4	02 Jul 2024	832	20e	10e	8e
S4	09 Jul 2024	817	11000	3600e	780
S4	16 Jul 2024	839	600e	100e	240e
S4	23 Jul 2024	818	420	62	6e
S4	30 Jul 2024	831	100e	26e	<20
S5	02 Jul 2024	949	>16000	4000	4600
S5	09 Jul 2024	911	>16000	>12000	>12000
S5	16 Jul 2024	935	>16000	>12000	>12000
S5	23 Jul 2024	910	>16000	6400	2600e
S5	30 Jul 2024	931	>16000	>12000	>12000
S6	02 Jul 2024	1016	660	100	320e
S6	09 Jul 2024	941	>16000	>12000	>12000
S6	16 Jul 2024	1003	1400e	140e	120e
S6	23 Jul 2024	939	>16000	>12000	>12000
S6	30 Jul 2024	955	>16000	2800e	3000e
S8	02 Jul 2024	1047	20e	2e	<2

Station	Date	Time	Total	Fecal	Entero
S8	09 Jul 2024	1012	<20	<2	10e
S8	16 Jul 2024	1039	<200	2e	2e
S8	23 Jul 2024	1012	<200	2e	<2
S8	30 Jul 2024	1028	<20	<2	<2
S9	02 Jul 2024	1107	<20	2e	2e
S9	09 Jul 2024	1031	800e	82	10e
S9	16 Jul 2024	1057	<200	<2	<2
S9	23 Jul 2024	1029	<200	<2	<2
S9	30 Jul 2024	1049	<200	4e	2e

ns = not sampled
ND = no data

Comments

date	station	depth	parmcode	comments
16-Jul-2024	S0			Rinse/Funnel Sterility QC for Enterococcus analysis had growth. Further testing showed growth was not Enterococcus. Results likely not affected.
16-Jul-2024	S2			Rinse/Funnel Sterility QC for Enterococcus analysis had growth. Further testing showed growth was not Enterococcus. Results likely not affected.
16-Jul-2024	S3			Rinse/Funnel Sterility QC for Enterococcus analysis had growth. Further testing showed growth was not Enterococcus. Results likely not affected.
30-Jul-2024	S0			Bacteria growth on non-selective QC plate, but none on selective media QC. Results not believed to be affected
30-Jul-2024	S2			Bacteria growth on non-selective QC plate, but none on selective media QC. Results not believed to be affected
30-Jul-2024	S3			Bacteria growth on non-selective QC plate, but none on selective media QC. Results not believed to be affected

Table 2.8

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

Station	Date	Parameter	Value
S0	02 Jul 2024	Arrive Time	950
S0	02 Jul 2024	Wind Speed (kts)	1.4
S0	02 Jul 2024	Wind Dir	NE
S0	02 Jul 2024	Animal Life	Dog-4; Seagull-10;
S0	02 Jul 2024	Floatables	None
S0	02 Jul 2024	Current Direction	N
S0	02 Jul 2024	Water Temp (C)	16
S0	02 Jul 2024	High Tide Time	802
S0	02 Jul 2024	Low Tide Time	152
S0	02 Jul 2024	Comments	Water clear; Trash-0; Kelp;Algae; Person/Walker/Jogger-4; 0.5 L/sec water flow from storm drain
S0	09 Jul 2024	Arrive Time	925
S0	09 Jul 2024	Wind Speed (kts)	1.1
S0	09 Jul 2024	Wind Dir	NE
S0	09 Jul 2024	Animal Life	Dog-2; Seagull-10;
S0	09 Jul 2024	Floatables	None
S0	09 Jul 2024	Current Direction	N
S0	09 Jul 2024	Water Temp (C)	17
S0	09 Jul 2024	High Tide Time	1258
S0	09 Jul 2024	Low Tide Time	629
S0	09 Jul 2024	Comments	Water clear; Trash-0; Kelp; Person/Walker/Jogger-6; 0.5 L/sec water flow from storm drain
S0	16 Jul 2024	Arrive Time	1125
S0	16 Jul 2024	Wind Speed (kts)	0
S0	16 Jul 2024	Wind Dir	E
S0	16 Jul 2024	Animal Life	
S0	16 Jul 2024	Floatables	None
S0	16 Jul 2024	Current Direction	S
S0	16 Jul 2024	Water Temp (C)	13
S0	16 Jul 2024	High Tide Time	723
S0	16 Jul 2024	Low Tide Time	106
S0	16 Jul 2024	Comments	Water turbid; Trash-0; Person/Walker/Jogger-20; No water flow from storm drain
S0	23 Jul 2024	Arrive Time	1050
S0	23 Jul 2024	Wind Speed (kts)	2.2
S0	23 Jul 2024	Wind Dir	S
S0	23 Jul 2024	Animal Life	Seagull-15;
S0	23 Jul 2024	Floatables	None
S0	23 Jul 2024	Current Direction	S
S0	23 Jul 2024	Water Temp (C)	12
S0	23 Jul 2024	High Tide Time	1152
S0	23 Jul 2024	Low Tide Time	537
S0	23 Jul 2024	Comments	Water clear; Trash-0; No water flow from storm drain
S0	30 Jul 2024	Arrive Time	825
S0	30 Jul 2024	Wind Speed (kts)	1.6
S0	30 Jul 2024	Wind Dir	S
S0	30 Jul 2024	Animal Life	Dog-3; Seagull-20;
S0	30 Jul 2024	Floatables	None
S0	30 Jul 2024	Current Direction	S
S0	30 Jul 2024	Water Temp (C)	14
S0	30 Jul 2024	High Tide Time	727
S0	30 Jul 2024	Low Tide Time	55

Station	Date	Parameter	Value
S0	30 Jul 2024	Comments	Water turbid; Trash-0; Kelp;Algae; Approximately 1.0 L/sec water flow from storm drain
S2	02 Jul 2024	Arrive Time	1055
S2	02 Jul 2024	Wind Speed (kts)	1
S2	02 Jul 2024	Wind Dir	NE
S2	02 Jul 2024	Animal Life	Dog-3; Seagull-10;
S2	02 Jul 2024	Floatables	None
S2	02 Jul 2024	Current Direction	N
S2	02 Jul 2024	Water Temp (C)	16
S2	02 Jul 2024	High Tide Time	802
S2	02 Jul 2024	Low Tide Time	152
S2	02 Jul 2024	Comments	Water clear; Trash-0; Kelp;Algae; Person/Walker/Jogger-10; No water flow from storm drain
S2	09 Jul 2024	Arrive Time	1035
S2	09 Jul 2024	Wind Speed (kts)	1.1
S2	09 Jul 2024	Wind Dir	NE
S2	09 Jul 2024	Animal Life	Dog-4; Seagull-10;
S2	09 Jul 2024	Floatables	None
S2	09 Jul 2024	Current Direction	N
S2	09 Jul 2024	Water Temp (C)	17
S2	09 Jul 2024	High Tide Time	1258
S2	09 Jul 2024	Low Tide Time	629
S2	09 Jul 2024	Comments	Water clear; Trash-0; Algae;Kelp; Person/Walker/Jogger-10; No water flow from storm drain
S2	16 Jul 2024	Arrive Time	940
S2	16 Jul 2024	Wind Speed (kts)	0.3
S2	16 Jul 2024	Wind Dir	E
S2	16 Jul 2024	Animal Life	
S2	16 Jul 2024	Floatables	None
S2	16 Jul 2024	Current Direction	S
S2	16 Jul 2024	Water Temp (C)	12
S2	16 Jul 2024	High Tide Time	723
S2	16 Jul 2024	Low Tide Time	106
S2	16 Jul 2024	Comments	Water turbid; Trash-0; Seagrass; Person/Walker/Jogger-4; No water flow from storm drain
S2	23 Jul 2024	Arrive Time	1144
S2	23 Jul 2024	Wind Speed (kts)	1.2
S2	23 Jul 2024	Wind Dir	SE
S2	23 Jul 2024	Animal Life	Seagull-20;
S2	23 Jul 2024	Floatables	None
S2	23 Jul 2024	Current Direction	N
S2	23 Jul 2024	Water Temp (C)	12
S2	23 Jul 2024	High Tide Time	1152
S2	23 Jul 2024	Low Tide Time	537
S2	23 Jul 2024	Comments	Water clear; Trash-0; Person/Walker/Jogger-7; Nowater flow from storm drain
S2	30 Jul 2024	Arrive Time	900
S2	30 Jul 2024	Wind Speed (kts)	1.1
S2	30 Jul 2024	Wind Dir	S
S2	30 Jul 2024	Animal Life	Dog-1; Seagull-20;
S2	30 Jul 2024	Floatables	None
S2	30 Jul 2024	Current Direction	S
S2	30 Jul 2024	Water Temp (C)	15
S2	30 Jul 2024	High Tide Time	727
S2	30 Jul 2024	Low Tide Time	55

Station	Date	Parameter	Value
S2	30 Jul 2024	Comments	Water turbid; Trash-0; Kelp;Algae; No water flow from storm drain
S3	02 Jul 2024	Arrive Time	1030
S3	02 Jul 2024	Wind Speed (kts)	1.2
S3	02 Jul 2024	Wind Dir	NE
S3	02 Jul 2024	Animal Life	Dog-4; Seagull-10;
S3	02 Jul 2024	Floatables	None
S3	02 Jul 2024	Current Direction	N
S3	02 Jul 2024	Water Temp (C)	16
S3	02 Jul 2024	High Tide Time	802
S3	02 Jul 2024	Low Tide Time	152
S3	02 Jul 2024	Comments	Water clear; Trash-0; Kelp;Algae; Person/Walker/Jogger-10; No water flow from storm drain
S3	09 Jul 2024	Arrive Time	1000
S3	09 Jul 2024	Wind Speed (kts)	1.4
S3	09 Jul 2024	Wind Dir	NE
S3	09 Jul 2024	Animal Life	Dog-6; Seagull-10;
S3	09 Jul 2024	Floatables	None
S3	09 Jul 2024	Current Direction	N
S3	09 Jul 2024	Water Temp (C)	17
S3	09 Jul 2024	High Tide Time	1258
S3	09 Jul 2024	Low Tide Time	629
S3	09 Jul 2024	Comments	Water clear; Trash-0; Kelp;Algae; Person/Walker/Jogger-10; 0.5L/sec water flow from storm drain
S3	16 Jul 2024	Arrive Time	1048
S3	16 Jul 2024	Wind Speed (kts)	0.5
S3	16 Jul 2024	Wind Dir	E
S3	16 Jul 2024	Animal Life	Dog-1;
S3	16 Jul 2024	Floatables	None
S3	16 Jul 2024	Current Direction	S
S3	16 Jul 2024	Water Temp (C)	12
S3	16 Jul 2024	High Tide Time	723
S3	16 Jul 2024	Low Tide Time	106
S3	16 Jul 2024	Comments	Water clear; Trash-0; Person/Walker/Jogger-2; No water flow from storm drain
S3	23 Jul 2024	Arrive Time	1215
S3	23 Jul 2024	Wind Speed (kts)	1.2
S3	23 Jul 2024	Wind Dir	SE
S3	23 Jul 2024	Animal Life	Seagull-20;
S3	23 Jul 2024	Floatables	None
S3	23 Jul 2024	Current Direction	N
S3	23 Jul 2024	Water Temp (C)	13
S3	23 Jul 2024	High Tide Time	1152
S3	23 Jul 2024	Low Tide Time	537
S3	23 Jul 2024	Comments	Water clear; Trash-0; Person/Walker/Jogger-30; No water flow from storm drain
S3	30 Jul 2024	Arrive Time	905
S3	30 Jul 2024	Wind Speed (kts)	0.9
S3	30 Jul 2024	Wind Dir	S
S3	30 Jul 2024	Animal Life	Seagull-20;
S3	30 Jul 2024	Floatables	None
S3	30 Jul 2024	Current Direction	S
S3	30 Jul 2024	Water Temp (C)	15
S3	30 Jul 2024	High Tide Time	727
S3	30 Jul 2024	Low Tide Time	55

Station	Date	Parameter	Value
S3	30 Jul 2024	Comments	Water turbid; Trash-0; Kelp;Algae; Previously wet ; construction workers at stone-built embankment-41
S4	02 Jul 2024	Arrive Time	832
S4	02 Jul 2024	Wind Speed (kts)	3.2
S4	02 Jul 2024	Wind Dir	SW
S4	02 Jul 2024	Animal Life	Bird-2;
S4	02 Jul 2024	Floatables	None
S4	02 Jul 2024	Current Direction	S
S4	02 Jul 2024	Water Temp (C)	18.8
S4	02 Jul 2024	High Tide Time	802
S4	02 Jul 2024	Low Tide Time	152
S4	02 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae;Debris
S4	09 Jul 2024	Arrive Time	817
S4	09 Jul 2024	Wind Speed (kts)	3.4
S4	09 Jul 2024	Wind Dir	NW
S4	09 Jul 2024	Animal Life	Bird-1;
S4	09 Jul 2024	Floatables	None
S4	09 Jul 2024	Current Direction	S
S4	09 Jul 2024	Water Temp (C)	16.9
S4	09 Jul 2024	High Tide Time	1258
S4	09 Jul 2024	Low Tide Time	629
S4	09 Jul 2024	Comments	Water clear; Trash-3; Kelp;Debris
S4	16 Jul 2024	Arrive Time	839
S4	16 Jul 2024	Wind Speed (kts)	0.7
S4	16 Jul 2024	Wind Dir	SW
S4	16 Jul 2024	Animal Life	
S4	16 Jul 2024	Floatables	None
S4	16 Jul 2024	Current Direction	S
S4	16 Jul 2024	Water Temp (C)	15.2
S4	16 Jul 2024	High Tide Time	723
S4	16 Jul 2024	Low Tide Time	106
S4	16 Jul 2024	Comments	Water clear; Trash-2; Kelp;Debris;Seagrass
S4	23 Jul 2024	Arrive Time	818
S4	23 Jul 2024	Wind Speed (kts)	2.7
S4	23 Jul 2024	Wind Dir	S
S4	23 Jul 2024	Animal Life	Bird-20;
S4	23 Jul 2024	Floatables	None
S4	23 Jul 2024	Current Direction	S
S4	23 Jul 2024	Water Temp (C)	15.4
S4	23 Jul 2024	High Tide Time	1152
S4	23 Jul 2024	Low Tide Time	537
S4	23 Jul 2024	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris
S4	30 Jul 2024	Arrive Time	831
S4	30 Jul 2024	Wind Speed (kts)	0.9
S4	30 Jul 2024	Wind Dir	SW
S4	30 Jul 2024	Animal Life	
S4	30 Jul 2024	Floatables	None
S4	30 Jul 2024	Current Direction	S
S4	30 Jul 2024	Water Temp (C)	14.8
S4	30 Jul 2024	High Tide Time	727
S4	30 Jul 2024	Low Tide Time	55
S4	30 Jul 2024	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris
S10	02 Jul 2024	Arrive Time	809
S10	02 Jul 2024	Wind Speed (kts)	2.2
S10	02 Jul 2024	Wind Dir	SW

Station	Date	Parameter	Value
S10	02 Jul 2024	Animal Life	
S10	02 Jul 2024	Floatables	None
S10	02 Jul 2024	Current Direction	S
S10	02 Jul 2024	Water Temp (C)	19.2
S10	02 Jul 2024	High Tide Time	802
S10	02 Jul 2024	Low Tide Time	152
S10	02 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
S10	09 Jul 2024	Arrive Time	759
S10	09 Jul 2024	Wind Speed (kts)	4.4
S10	09 Jul 2024	Wind Dir	NW
S10	09 Jul 2024	Animal Life	
S10	09 Jul 2024	Floatables	None
S10	09 Jul 2024	Current Direction	S
S10	09 Jul 2024	Water Temp (C)	16.4
S10	09 Jul 2024	High Tide Time	1258
S10	09 Jul 2024	Low Tide Time	629
S10	09 Jul 2024	Comments	Water clear; Trash-3; Debris;Seagrass;Kelp
S10	16 Jul 2024	Arrive Time	816
S10	16 Jul 2024	Wind Speed (kts)	1.3
S10	16 Jul 2024	Wind Dir	SW
S10	16 Jul 2024	Animal Life	
S10	16 Jul 2024	Floatables	None
S10	16 Jul 2024	Current Direction	S
S10	16 Jul 2024	Water Temp (C)	15.8
S10	16 Jul 2024	High Tide Time	723
S10	16 Jul 2024	Low Tide Time	106
S10	16 Jul 2024	Comments	Water clear; Trash-1; Kelp;Debris;Seagrass
S10	23 Jul 2024	Arrive Time	758
S10	23 Jul 2024	Wind Speed (kts)	0.9
S10	23 Jul 2024	Wind Dir	W
S10	23 Jul 2024	Animal Life	Bird-2;
S10	23 Jul 2024	Floatables	None
S10	23 Jul 2024	Current Direction	S
S10	23 Jul 2024	Water Temp (C)	15.2
S10	23 Jul 2024	High Tide Time	1152
S10	23 Jul 2024	Low Tide Time	537
S10	23 Jul 2024	Comments	Water clear; Trash-2; Kelp;Seagrass
S10	30 Jul 2024	Arrive Time	818
S10	30 Jul 2024	Wind Speed (kts)	0.6
S10	30 Jul 2024	Wind Dir	SW
S10	30 Jul 2024	Animal Life	
S10	30 Jul 2024	Floatables	None
S10	30 Jul 2024	Current Direction	S
S10	30 Jul 2024	Water Temp (C)	14.9
S10	30 Jul 2024	High Tide Time	727
S10	30 Jul 2024	Low Tide Time	55
S10	30 Jul 2024	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris
S5	02 Jul 2024	Arrive Time	949
S5	02 Jul 2024	Wind Speed (kts)	3.2
S5	02 Jul 2024	Wind Dir	SW
S5	02 Jul 2024	Animal Life	
S5	02 Jul 2024	Floatables	None
S5	02 Jul 2024	Current Direction	S
S5	02 Jul 2024	Water Temp (C)	20.6
S5	02 Jul 2024	High Tide Time	802
S5	02 Jul 2024	Low Tide Time	152

Station	Date	Parameter	Value
S5	02 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass; Sewage-like odor
S5	09 Jul 2024	Arrive Time	911
S5	09 Jul 2024	Wind Speed (kts)	5.2
S5	09 Jul 2024	Wind Dir	NW
S5	09 Jul 2024	Animal Life	
S5	09 Jul 2024	Floatables	None
S5	09 Jul 2024	Current Direction	S
S5	09 Jul 2024	Water Temp (C)	17.5
S5	09 Jul 2024	High Tide Time	1258
S5	09 Jul 2024	Low Tide Time	629
S5	09 Jul 2024	Comments	Water clear; Trash-2; Kelp;Debris
S5	16 Jul 2024	Arrive Time	935
S5	16 Jul 2024	Wind Speed (kts)	0.7
S5	16 Jul 2024	Wind Dir	SW
S5	16 Jul 2024	Animal Life	
S5	16 Jul 2024	Floatables	Foam
S5	16 Jul 2024	Current Direction	S
S5	16 Jul 2024	Water Temp (C)	19.2
S5	16 Jul 2024	High Tide Time	723
S5	16 Jul 2024	Low Tide Time	106
S5	16 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Sewage-like odor
S5	23 Jul 2024	Arrive Time	910
S5	23 Jul 2024	Wind Speed (kts)	5.2
S5	23 Jul 2024	Wind Dir	SW
S5	23 Jul 2024	Animal Life	
S5	23 Jul 2024	Floatables	None
S5	23 Jul 2024	Current Direction	S
S5	23 Jul 2024	Water Temp (C)	18.8
S5	23 Jul 2024	High Tide Time	1152
S5	23 Jul 2024	Low Tide Time	537
S5	23 Jul 2024	Comments	Water clear; Trash-1; Kelp;Debris
S5	30 Jul 2024	Arrive Time	931
S5	30 Jul 2024	Wind Speed (kts)	2.1
S5	30 Jul 2024	Wind Dir	W
S5	30 Jul 2024	Animal Life	
S5	30 Jul 2024	Floatables	Foam
S5	30 Jul 2024	Current Direction	S
S5	30 Jul 2024	Water Temp (C)	14.8
S5	30 Jul 2024	High Tide Time	727
S5	30 Jul 2024	Low Tide Time	55
S5	30 Jul 2024	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris; Person/Walker/Jogger-1; Sewage-like odor
S11	02 Jul 2024	Arrive Time	1006
S11	02 Jul 2024	Wind Speed (kts)	4.7
S11	02 Jul 2024	Wind Dir	SW
S11	02 Jul 2024	Animal Life	
S11	02 Jul 2024	Floatables	Foam
S11	02 Jul 2024	Current Direction	S
S11	02 Jul 2024	Water Temp (C)	19.6
S11	02 Jul 2024	High Tide Time	802
S11	02 Jul 2024	Low Tide Time	152
S11	02 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Sewage-like odor
S11	09 Jul 2024	Arrive Time	930

Station	Date	Parameter	Value
S11	09 Jul 2024	Wind Speed (kts)	5.7
S11	09 Jul 2024	Wind Dir	NW
S11	09 Jul 2024	Animal Life	
S11	09 Jul 2024	Floatables	None
S11	09 Jul 2024	Current Direction	S
S11	09 Jul 2024	Water Temp (C)	18.5
S11	09 Jul 2024	High Tide Time	1258
S11	09 Jul 2024	Low Tide Time	629
S11	09 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S11	16 Jul 2024	Arrive Time	952
S11	16 Jul 2024	Wind Speed (kts)	7
S11	16 Jul 2024	Wind Dir	W
S11	16 Jul 2024	Animal Life	
S11	16 Jul 2024	Floatables	Foam
S11	16 Jul 2024	Current Direction	S
S11	16 Jul 2024	Water Temp (C)	17.4
S11	16 Jul 2024	High Tide Time	723
S11	16 Jul 2024	Low Tide Time	106
S11	16 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Sewage-like odor
S11	23 Jul 2024	Arrive Time	928
S11	23 Jul 2024	Wind Speed (kts)	5.4
S11	23 Jul 2024	Wind Dir	SW
S11	23 Jul 2024	Animal Life	
S11	23 Jul 2024	Floatables	None
S11	23 Jul 2024	Current Direction	S
S11	23 Jul 2024	Water Temp (C)	20.3
S11	23 Jul 2024	High Tide Time	1152
S11	23 Jul 2024	Low Tide Time	537
S11	23 Jul 2024	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris; Person/Walker/Jogger-2
S11	30 Jul 2024	Arrive Time	945
S11	30 Jul 2024	Wind Speed (kts)	2.1
S11	30 Jul 2024	Wind Dir	W
S11	30 Jul 2024	Animal Life	Dog-1;
S11	30 Jul 2024	Floatables	None
S11	30 Jul 2024	Current Direction	S
S11	30 Jul 2024	Water Temp (C)	12.9
S11	30 Jul 2024	High Tide Time	727
S11	30 Jul 2024	Low Tide Time	55
S11	30 Jul 2024	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris; Person/Walker/Jogger-1
S6	02 Jul 2024	Arrive Time	1016
S6	02 Jul 2024	Wind Speed (kts)	4.4
S6	02 Jul 2024	Wind Dir	SW
S6	02 Jul 2024	Animal Life	
S6	02 Jul 2024	Floatables	None
S6	02 Jul 2024	Current Direction	S
S6	02 Jul 2024	Water Temp (C)	20.1
S6	02 Jul 2024	High Tide Time	802
S6	02 Jul 2024	Low Tide Time	152
S6	02 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
S6	09 Jul 2024	Arrive Time	941
S6	09 Jul 2024	Wind Speed (kts)	4.8
S6	09 Jul 2024	Wind Dir	NW
S6	09 Jul 2024	Animal Life	

Station	Date	Parameter	Value
S6	09 Jul 2024	Floatables	None
S6	09 Jul 2024	Current Direction	S
S6	09 Jul 2024	Water Temp (C)	17
S6	09 Jul 2024	High Tide Time	1258
S6	09 Jul 2024	Low Tide Time	629
S6	09 Jul 2024	Comments	Water clear; Trash-1; Kelp;Debris;Algae;Seagrass
S6	16 Jul 2024	Arrive Time	1003
S6	16 Jul 2024	Wind Speed (kts)	2.1
S6	16 Jul 2024	Wind Dir	W
S6	16 Jul 2024	Animal Life	
S6	16 Jul 2024	Floatables	Foam
S6	16 Jul 2024	Current Direction	S
S6	16 Jul 2024	Water Temp (C)	18.2
S6	16 Jul 2024	High Tide Time	723
S6	16 Jul 2024	Low Tide Time	106
S6	16 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Sewage-like odor
S6	23 Jul 2024	Arrive Time	939
S6	23 Jul 2024	Wind Speed (kts)	4.2
S6	23 Jul 2024	Wind Dir	SW
S6	23 Jul 2024	Animal Life	Dog-2;
S6	23 Jul 2024	Floatables	Foam
S6	23 Jul 2024	Current Direction	S
S6	23 Jul 2024	Water Temp (C)	17.2
S6	23 Jul 2024	High Tide Time	1152
S6	23 Jul 2024	Low Tide Time	537
S6	23 Jul 2024	Comments	Water clear; Surfer/Paddle boarder-1; Trash-1; Kelp;Sea-grass;Algae;Debris; Person/Walker/Jogger-1
S6	30 Jul 2024	Arrive Time	955
S6	30 Jul 2024	Wind Speed (kts)	2.3
S6	30 Jul 2024	Wind Dir	W
S6	30 Jul 2024	Animal Life	
S6	30 Jul 2024	Floatables	None
S6	30 Jul 2024	Current Direction	S
S6	30 Jul 2024	Water Temp (C)	13.8
S6	30 Jul 2024	High Tide Time	727
S6	30 Jul 2024	Low Tide Time	55
S6	30 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae;Debris; Per-son/Walker/Jogger-1
S12	02 Jul 2024	Arrive Time	1030
S12	02 Jul 2024	Wind Speed (kts)	6.2
S12	02 Jul 2024	Wind Dir	SW
S12	02 Jul 2024	Animal Life	Dog-1;
S12	02 Jul 2024	Floatables	None
S12	02 Jul 2024	Current Direction	S
S12	02 Jul 2024	Water Temp (C)	18.3
S12	02 Jul 2024	High Tide Time	802
S12	02 Jul 2024	Low Tide Time	152
S12	02 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Per-son/Walker/Jogger-2
S12	09 Jul 2024	Arrive Time	954
S12	09 Jul 2024	Wind Speed (kts)	4.2
S12	09 Jul 2024	Wind Dir	W
S12	09 Jul 2024	Animal Life	
S12	09 Jul 2024	Floatables	None
S12	09 Jul 2024	Current Direction	S

Station	Date	Parameter	Value
S12	09 Jul 2024	Water Temp (C)	18.2
S12	09 Jul 2024	High Tide Time	1258
S12	09 Jul 2024	Low Tide Time	629
S12	09 Jul 2024	Comments	Water clear; Trash-1; Seagrass;Kelp; Person/Walker/Jogger-2
S12	16 Jul 2024	Arrive Time	1015
S12	16 Jul 2024	Wind Speed (kts)	2.5
S12	16 Jul 2024	Wind Dir	W
S12	16 Jul 2024	Animal Life	
S12	16 Jul 2024	Floatables	None
S12	16 Jul 2024	Current Direction	S
S12	16 Jul 2024	Water Temp (C)	20.5
S12	16 Jul 2024	High Tide Time	723
S12	16 Jul 2024	Low Tide Time	106
S12	16 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S12	23 Jul 2024	Arrive Time	954
S12	23 Jul 2024	Wind Speed (kts)	4.2
S12	23 Jul 2024	Wind Dir	SW
S12	23 Jul 2024	Animal Life	
S12	23 Jul 2024	Floatables	None
S12	23 Jul 2024	Current Direction	S
S12	23 Jul 2024	Water Temp (C)	16.8
S12	23 Jul 2024	High Tide Time	1152
S12	23 Jul 2024	Low Tide Time	537
S12	23 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S12	30 Jul 2024	Arrive Time	1007
S12	30 Jul 2024	Wind Speed (kts)	4.8
S12	30 Jul 2024	Wind Dir	W
S12	30 Jul 2024	Animal Life	
S12	30 Jul 2024	Floatables	Empty chip bag
S12	30 Jul 2024	Current Direction	S
S12	30 Jul 2024	Water Temp (C)	12.6
S12	30 Jul 2024	High Tide Time	727
S12	30 Jul 2024	Low Tide Time	55
S12	30 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Person/Walker/Jogger-2
S8	02 Jul 2024	Arrive Time	1047
S8	02 Jul 2024	Wind Speed (kts)	6.7
S8	02 Jul 2024	Wind Dir	W
S8	02 Jul 2024	Animal Life	
S8	02 Jul 2024	Floatables	Foam
S8	02 Jul 2024	Current Direction	S
S8	02 Jul 2024	Water Temp (C)	20.7
S8	02 Jul 2024	High Tide Time	802
S8	02 Jul 2024	Low Tide Time	152
S8	02 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S8	09 Jul 2024	Arrive Time	1012
S8	09 Jul 2024	Wind Speed (kts)	6.2
S8	09 Jul 2024	Wind Dir	W
S8	09 Jul 2024	Animal Life	
S8	09 Jul 2024	Floatables	None
S8	09 Jul 2024	Current Direction	S
S8	09 Jul 2024	Water Temp (C)	18.9
S8	09 Jul 2024	High Tide Time	1258
S8	09 Jul 2024	Low Tide Time	629
S8	09 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris

Station	Date	Parameter	Value
S8	16 Jul 2024	Arrive Time	1039
S8	16 Jul 2024	Wind Speed (kts)	4.8
S8	16 Jul 2024	Wind Dir	W
S8	16 Jul 2024	Animal Life	
S8	16 Jul 2024	Floatables	None
S8	16 Jul 2024	Current Direction	S
S8	16 Jul 2024	Water Temp (C)	18.7
S8	16 Jul 2024	High Tide Time	723
S8	16 Jul 2024	Low Tide Time	106
S8	16 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S8	23 Jul 2024	Arrive Time	1012
S8	23 Jul 2024	Wind Speed (kts)	4.4
S8	23 Jul 2024	Wind Dir	SW
S8	23 Jul 2024	Animal Life	
S8	23 Jul 2024	Floatables	None
S8	23 Jul 2024	Current Direction	S
S8	23 Jul 2024	Water Temp (C)	17.9
S8	23 Jul 2024	High Tide Time	1152
S8	23 Jul 2024	Low Tide Time	537
S8	23 Jul 2024	Comments	Water clear; Trash-2; Kelp;Debris;Seagrass
S8	30 Jul 2024	Arrive Time	1028
S8	30 Jul 2024	Wind Speed (kts)	5
S8	30 Jul 2024	Wind Dir	W
S8	30 Jul 2024	Animal Life	
S8	30 Jul 2024	Floatables	None
S8	30 Jul 2024	Current Direction	S
S8	30 Jul 2024	Water Temp (C)	16.1
S8	30 Jul 2024	High Tide Time	727
S8	30 Jul 2024	Low Tide Time	55
S8	30 Jul 2024	Comments	Water clear; Fisherperson-3; Trash-1; Kelp;Seagrass
S9	02 Jul 2024	Arrive Time	1107
S9	02 Jul 2024	Wind Speed (kts)	4.9
S9	02 Jul 2024	Wind Dir	W
S9	02 Jul 2024	Animal Life	
S9	02 Jul 2024	Floatables	None
S9	02 Jul 2024	Current Direction	S
S9	02 Jul 2024	Water Temp (C)	24.4
S9	02 Jul 2024	High Tide Time	802
S9	02 Jul 2024	Low Tide Time	152
S9	02 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Person/Walker/Jogger-12
S9	09 Jul 2024	Arrive Time	1031
S9	09 Jul 2024	Wind Speed (kts)	7.1
S9	09 Jul 2024	Wind Dir	NW
S9	09 Jul 2024	Animal Life	Bird-4;
S9	09 Jul 2024	Floatables	None
S9	09 Jul 2024	Current Direction	S
S9	09 Jul 2024	Water Temp (C)	21.2
S9	09 Jul 2024	High Tide Time	1258
S9	09 Jul 2024	Low Tide Time	629
S9	09 Jul 2024	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris; Person/Walker/Jogger-2
S9	16 Jul 2024	Arrive Time	1057
S9	16 Jul 2024	Wind Speed (kts)	2.7
S9	16 Jul 2024	Wind Dir	W

Station	Date	Parameter	Value
S9	16 Jul 2024	Animal Life	
S9	16 Jul 2024	Floatables	None
S9	16 Jul 2024	Current Direction	S
S9	16 Jul 2024	Water Temp (C)	19.6
S9	16 Jul 2024	High Tide Time	723
S9	16 Jul 2024	Low Tide Time	106
S9	16 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae;Debris; Person/Walker/Jogger-2
S9	23 Jul 2024	Arrive Time	1029
S9	23 Jul 2024	Wind Speed (kts)	1.7
S9	23 Jul 2024	Wind Dir	W
S9	23 Jul 2024	Animal Life	
S9	23 Jul 2024	Floatables	None
S9	23 Jul 2024	Current Direction	S
S9	23 Jul 2024	Water Temp (C)	16
S9	23 Jul 2024	High Tide Time	1152
S9	23 Jul 2024	Low Tide Time	537
S9	23 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Person/Walker/Jogger-7
S9	30 Jul 2024	Arrive Time	1049
S9	30 Jul 2024	Wind Speed (kts)	2.9
S9	30 Jul 2024	Wind Dir	W
S9	30 Jul 2024	Animal Life	
S9	30 Jul 2024	Floatables	None
S9	30 Jul 2024	Current Direction	S
S9	30 Jul 2024	Water Temp (C)	16.9
S9	30 Jul 2024	High Tide Time	727
S9	30 Jul 2024	Low Tide Time	55
S9	30 Jul 2024	Comments	Water clear; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-2

Kelp Stations

Table 3.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for fecal coliform bacteria at the SBOO 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	I19	I24	I25	I26	I32	I39	I40
01 Jul 2024	181	8	7	10	142	6	238
02 Jul 2024	181	8	7	10	142	6	238
03 Jul 2024	181	8	7	10	142	6	238
04 Jul 2024	*139	*9	*5	*5	*52	*4	*257
05 Jul 2024	*139	*9	*5	*5	*52	*4	*257
06 Jul 2024	*139	*9	*5	*5	*52	*4	*257
07 Jul 2024	*139	*9	*5	*5	*52	*4	*257
08 Jul 2024	80	9	5	6	53	5	124
09 Jul 2024	80	9	5	6	53	5	124
10 Jul 2024	80	9	5	6	53	5	124
11 Jul 2024	*39	*8	*6	*8	*78	*6	*58
12 Jul 2024	*39	*8	*6	*8	*78	*6	*58
13 Jul 2024	*39	*8	*6	*8	*78	*6	*58
14 Jul 2024	*39	*8	*6	*8	*78	*6	*58
15 Jul 2024	*39	*8	*6	*8	*78	*6	*58
16 Jul 2024	54	6	5	7	38	5	55
17 Jul 2024	*123	*8	*6	*9	*38	*5	*97
18 Jul 2024	*123	*8	*6	*9	*38	*5	*97
19 Jul 2024	*123	*8	*6	*9	*38	*5	*97
20 Jul 2024	*123	*8	*6	*9	*38	*5	*97
21 Jul 2024	*123	*8	*6	*9	*38	*5	*97
22 Jul 2024	*123	*8	*6	*9	*38	*5	*97
23 Jul 2024	109	7	5	8	66	4	75
24 Jul 2024	109	7	5	8	66	4	75
25 Jul 2024	*42	*4	*3	*5	*31	*3	*56
26 Jul 2024	*42	*4	*3	*5	*31	*3	*56
27 Jul 2024	*42	*4	*3	*5	*31	*3	*56
28 Jul 2024	*42	*4	*3	*5	*31	*3	*56
29 Jul 2024	*42	*4	*3	*5	*31	*3	*56
30 Jul 2024	*42	*4	*3	*5	*31	*3	*56
31 Jul 2024	*28	*4	*3	*5	*52	*4	*13

* Geometric mean calculated using n<5

Table 3.2

Summary of compliance at the SBOO 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	I19	I24	I25	I26	I32	I39	I40
01 Jul 2024	IC	IC	IC	IC	IC	IC	E
08 Jul 2024	IC	IC	IC	IC	IC	IC	IC
16 Jul 2024	E	IC	IC	IC	IC	IC	IC
23 Jul 2024	IC	IC	IC	IC	E	IC	IC
31 Jul 2024	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.3

Summary of compliance with the Ocean Plan's 6-week Geometric Mean standard for *Enterococcus* at the SBOO 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 >30 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 Jul 2024	138	22	13	13	130	4	289
02 Jul 2024	138	22	13	13	130	4	289
03 Jul 2024	138	22	13	13	130	4	289
04 Jul 2024	138	22	13	13	130	4	289
05 Jul 2024	138	22	13	13	130	4	289
06 Jul 2024	138	22	13	13	130	4	289
07 Jul 2024	138	22	13	13	130	4	289
08 Jul 2024	93	21	13	13	121	4	190
09 Jul 2024	72	26	16	19	197	5	168
10 Jul 2024	72	26	16	19	197	5	168
11 Jul 2024	72	26	16	19	197	5	168
12 Jul 2024	72	26	16	19	197	5	168
13 Jul 2024	72	26	16	19	197	5	168
14 Jul 2024	72	26	16	19	197	5	168
15 Jul 2024	72	26	16	19	197	5	168
16 Jul 2024	77	20	16	10	53	4	158
17 Jul 2024	77	20	16	10	53	4	158
18 Jul 2024	77	20	16	10	53	4	158
19 Jul 2024	77	20	16	10	53	4	158
20 Jul 2024	77	20	16	10	53	4	158
21 Jul 2024	77	20	16	10	53	4	158
22 Jul 2024	77	20	16	10	53	4	158
23 Jul 2024	40	13	11	10	82	4	66
24 Jul 2024	40	13	11	10	82	4	66
25 Jul 2024	40	13	11	10	82	4	66
26 Jul 2024	40	13	11	10	82	4	66
27 Jul 2024	40	13	11	10	82	4	66
28 Jul 2024	40	13	11	10	82	4	66
29 Jul 2024	63	16	13	14	90	3	60
30 Jul 2024	63	16	13	14	90	3	60
31 Jul 2024	36	13	11	10	91	3	41

* Geometric mean calculated using n<5

Table 3.4

Summary of compliance at the SBOO kelp 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	I19	I24	I25	I26	I32	I39	I40
July	IC	IC	IC	IC	E	IC	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.5

Summary of compliance with the Ocean Plan's 30-day Median standard for total coliform bacteria at the SBOO 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	I19		I24		I25		I26		I32		I39		I40		
	2m	6m	2m	6m	2m	6m	2m	6m	2m	6m	2m	6m	2m	6m	9m
01 Jul 2024	2600	3600	56	120	60	80	160	2	1000	200	320	2	3800	2000	460
02 Jul 2024	2600	3600	56	120	60	80	160	2	1000	200	320	2	3800	2000	460
03 Jul 2024	2600	3600	56	120	60	80	160	2	1000	200	320	2	3800	2000	460
04 Jul 2024	*1340	*5660	*34	*83	*150	*49	*81	*2	*530	*130	*180	*2	*5300	*3280	*780
05 Jul 2024	*1340	*5660	*34	*83	*150	*49	*81	*2	*530	*130	*180	*2	*5300	*3280	*780
06 Jul 2024	*1340	*5660	*34	*83	*150	*49	*81	*2	*530	*130	*180	*2	*5300	*3280	*780
07 Jul 2024	*1340	*5660	*34	*83	*150	*49	*81	*2	*530	*130	*180	*2	*5300	*3280	*780
08 Jul 2024	80	320	56	20	200	20	60	2	1000	200	320	2	3800	360	460
09 Jul 2024	80	320	56	20	200	20	60	2	1000	200	320	2	3800	360	460
10 Jul 2024	80	320	56	20	200	20	60	2	1000	200	320	2	3800	360	460
11 Jul 2024	*50	*170	*128	*13	*110	*19	*80	*31	*1200	*130	*460	*7	*1920	*210	*270
12 Jul 2024	*50	*170	*128	*13	*110	*19	*80	*31	*1200	*130	*460	*7	*1920	*210	*270
13 Jul 2024	*50	*170	*128	*13	*110	*19	*80	*31	*1200	*130	*460	*7	*1920	*210	*270
14 Jul 2024	*50	*170	*128	*13	*110	*19	*80	*31	*1200	*130	*460	*7	*1920	*210	*270
15 Jul 2024	*50	*170	*128	*13	*110	*19	*80	*31	*1200	*130	*460	*7	*1920	*210	*270
16 Jul 2024	20	40	56	14	20	20	60	16	1000	60	320	2	120	200	400
17 Jul 2024	*50	*180	*128	*17	*110	*20	*60	*38	*1200	*130	*310	*7	*1960	*280	*430
18 Jul 2024	*50	*180	*128	*17	*110	*20	*60	*38	*1200	*130	*310	*7	*1960	*280	*430
19 Jul 2024	*50	*180	*128	*17	*110	*20	*60	*38	*1200	*130	*310	*7	*1960	*280	*430
20 Jul 2024	*50	*180	*128	*17	*110	*20	*60	*38	*1200	*130	*310	*7	*1960	*280	*430
21 Jul 2024	*50	*180	*128	*17	*110	*20	*60	*38	*1200	*130	*310	*7	*1960	*280	*430
22 Jul 2024	*50	*180	*128	*17	*110	*20	*60	*38	*1200	*130	*310	*7	*1960	*280	*430
23 Jul 2024	20	320	56	20	20	20	60	20	1400	60	600	2	120	200	400
24 Jul 2024	20	320	56	20	20	20	60	20	1400	60	600	2	120	200	400
25 Jul 2024	*20	*180	*29	*17	*20	*19	*20	*40	*1200	*40	*310	*2	*80	*200	*270
26 Jul 2024	*20	*180	*29	*17	*20	*19	*20	*40	*1200	*40	*310	*2	*80	*200	*270
27 Jul 2024	*20	*180	*29	*17	*20	*19	*20	*40	*1200	*40	*310	*2	*80	*200	*270
28 Jul 2024	*20	*180	*29	*17	*20	*19	*20	*40	*1200	*40	*310	*2	*80	*200	*270
29 Jul 2024	*20	*180	*29	*17	*20	*19	*20	*40	*1200	*40	*310	*2	*80	*200	*270
30 Jul 2024	*20	*180	*29	*17	*20	*19	*20	*40	*1200	*40	*310	*2	*80	*200	*270
31 Jul 2024	*20	*50	*11	*20	*20	*13	*20	*40	*780	*110	*440	*2	*40	*130	*100

* Median calculated using n<5

Table 3.6

Summary of compliance at the SBOO 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% of samples per month.

	I19			I24			I25			I26			I32			I39			I40		
Date	2m	6m	11m	2m	6m	11m	2m	6m	9m	2m	6m	9m	2m	6m	9m	2m	12m	18m	2m	6m	9m
July	IC	E	E	IC	IC	IC	IC	IC	IC	IC	IC	IC	E	E	E	IC	IC	IC	E	E	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.7

Summary of water quality parameters at the SBOO kelp stations for each sample date. Densities of total coliform (Total), fecal coliform (Fecal), and *Enterococcus* (Entero) 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	Entero
I19	01 Jul 2024	1035	2	80e	2e	100e
I19	01 Jul 2024	1035	6	320e	58	22e
I19	01 Jul 2024	1035	11	260e	20e	32e
I19	08 Jul 2024	1142	2	20e	4e	6e
I19	08 Jul 2024	1142	6	<20	4e	<2
I19	08 Jul 2024	1142	11	60e	18e	18e
I19	16 Jul 2024	1036	2	20e	580	320e
I19	16 Jul 2024	1036	6	40e	8e	8e
I19	16 Jul 2024	1036	11	5200	2e	10e
I19	23 Jul 2024	1124	2	<2	<2	<2
I19	23 Jul 2024	1124	6	460	110	10e
I19	23 Jul 2024	1124	11	360e	90	24e
I19	31 Jul 2024	1142	2	60e	12e	<2
I19	31 Jul 2024	1142	6	60e	<2	2e
I19	31 Jul 2024	1142	11	40e	2e	2e
I24	01 Jul 2024	1053	2	56	6e	220e
I24	01 Jul 2024	1053	6	6e	<2	6e
I24	01 Jul 2024	1053	11	<2	<2	<2
I24	08 Jul 2024	1202	2	<200	<2	18e
I24	08 Jul 2024	1202	6	<20	2e	<2
I24	08 Jul 2024	1202	11	200e	22e	36e
I24	16 Jul 2024	1058	2	<2	<2	<2
I24	16 Jul 2024	1058	6	14e	4e	2e
I24	16 Jul 2024	1058	11	<20	<2	<2
I24	23 Jul 2024	1143	2	<2	<2	<2
I24	23 Jul 2024	1143	6	<20	2e	<2
I24	23 Jul 2024	1143	11	20e	4e	14e
I24	31 Jul 2024	1202	2	<20	<2	10e
I24	31 Jul 2024	1202	6	<20	<2	<2
I24	31 Jul 2024	1202	11	2e	4e	<2
I25	01 Jul 2024	1058	2	160e	4e	420
I25	01 Jul 2024	1058	6	18e	<2	62
I25	01 Jul 2024	1058	9	2e	<2	6e
I25	08 Jul 2024	1209	2	<200	<2	20e
I25	08 Jul 2024	1209	6	<20	6e	2e
I25	08 Jul 2024	1209	9	100e	6e	4e
I25	16 Jul 2024	1106	2	2e	<2	<2
I25	16 Jul 2024	1106	6	<20	4e	4e
I25	16 Jul 2024	1106	9	20e	4e	4e

Station	Date	Time	Depth	Total	Fecal	Entero
I25	23 Jul 2024	1155	2	<2	<2	<2
I25	23 Jul 2024	1155	6	2e	<2	<2
I25	23 Jul 2024	1155	9	<20	4e	2e
I25	31 Jul 2024	1211	2	40e	<2	8e
I25	31 Jul 2024	1211	6	6e	2e	2e
I25	31 Jul 2024	1211	9	<20	2e	<2
I26	01 Jul 2024	1107	2	160e	2e	160e
I26	01 Jul 2024	1107	6	2e	<2	8e
I26	01 Jul 2024	1107	9	<2	<2	<2
I26	08 Jul 2024	1217	2	60e	6e	14e
I26	08 Jul 2024	1217	6	60e	16e	10e
I26	08 Jul 2024	1217	9	220e	26e	30e
I26	16 Jul 2024	1116	2	20e	2e	<2
I26	16 Jul 2024	1116	6	16e	8e	2e
I26	16 Jul 2024	1116	9	20e	<2	2e
I26	23 Jul 2024	1208	2	<2	<2	<2
I26	23 Jul 2024	1208	6	<20	<2	<2
I26	23 Jul 2024	1208	9	20e	6e	<2
I26	31 Jul 2024	1236	2	60e	<2	2e
I26	31 Jul 2024	1236	6	40e	4e	2e
I26	31 Jul 2024	1236	9	24e	2e	<2
I32	01 Jul 2024	1120	2	1000	34e	460
I32	01 Jul 2024	1120	6	60e	2e	10e
I32	01 Jul 2024	1120	9	20e	<2	2e
I32	08 Jul 2024	1228	2	1400e	74	140e
I32	08 Jul 2024	1228	6	200e	60e	56
I32	08 Jul 2024	1228	9	600e	40e	46
I32	16 Jul 2024	1131	2	20e	<2	<2
I32	16 Jul 2024	1131	6	<20	2e	<2
I32	16 Jul 2024	1131	9	<20	2e	<2
I32	23 Jul 2024	1220	2	8200	1200	940
I32	23 Jul 2024	1220	6	20e	<2	8e
I32	23 Jul 2024	1220	9	2000e	600	180e
I32	31 Jul 2024	1248	2	160e	10e	58
I32	31 Jul 2024	1248	6	3800e	280e	200e
I32	31 Jul 2024	1248	9	280e	24e	18e
I39	01 Jul 2024	1011	2	<2	<2	<2
I39	01 Jul 2024	1011	12	<2	<2	<2
I39	01 Jul 2024	1011	18	<2	<2	<2
I39	08 Jul 2024	1118	2	12e	4e	<2
I39	08 Jul 2024	1118	12	<200	16e	10e
I39	08 Jul 2024	1118	18	8e	<2	<2
I39	16 Jul 2024	1012	2	2e	<2	<2
I39	16 Jul 2024	1012	12	2e	<2	2e
I39	16 Jul 2024	1012	18	4e	<2	<2

Station	Date	Time	Depth	Total	Fecal	Entero
I39	23 Jul 2024	1101	2	<2	<2	<2
I39	23 Jul 2024	1101	12	<2	<2	<2
I39	23 Jul 2024	1101	18	2e	<2	<2
I39	31 Jul 2024	1223	2	<2	<2	<2
I39	31 Jul 2024	1223	12	<20	12e	<2
I39	31 Jul 2024	1223	18	2e	4e	<2
I40	01 Jul 2024	1044	2	6800	1000e	1800e
I40	01 Jul 2024	1044	6	6200	2800e	440
I40	01 Jul 2024	1044	9	1100	200e	120
I40	08 Jul 2024	1153	2	40e	4e	6e
I40	08 Jul 2024	1153	6	60e	6e	8e
I40	08 Jul 2024	1153	9	60e	10e	32e
I40	16 Jul 2024	1050	2	120e	26e	8e
I40	16 Jul 2024	1050	6	<200	48	14e
I40	16 Jul 2024	1050	9	400e	58	54
I40	23 Jul 2024	1135	2	40e	6e	2e
I40	23 Jul 2024	1135	6	200e	48	28e
I40	23 Jul 2024	1135	9	140e	24e	32e
I40	31 Jul 2024	1153	2	<20	6e	10e
I40	31 Jul 2024	1153	6	4e	<2	<2
I40	31 Jul 2024	1153	9	<20	<2	6e

ns = not sampled
ND = no data

Table 3.8

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

Station	Date	Parameter	Value
I19	01 Jul 2024	Arrive Time	1035
I19	01 Jul 2024	Depart Time	1039
I19	01 Jul 2024	Air Temp (C)	17.6
I19	01 Jul 2024	Visibility (mi)	5
I19	01 Jul 2024	Wind Speed (kts)	8.8
I19	01 Jul 2024	Wind Dir	SW
I19	01 Jul 2024	Sea State	Calm
I19	01 Jul 2024	High Tide Time	1818
I19	01 Jul 2024	Low Tide Time	54
I19	01 Jul 2024	Comments	Interesting low density signature at depth shows up in both T and S.
I19	08 Jul 2024	Arrive Time	1142
I19	08 Jul 2024	Depart Time	1146
I19	08 Jul 2024	Air Temp (C)	19
I19	08 Jul 2024	Visibility (mi)	5
I19	08 Jul 2024	Wind Speed (kts)	5.9
I19	08 Jul 2024	Wind Dir	SW
I19	08 Jul 2024	Sea State	Calm
I19	08 Jul 2024	High Tide Time	2306
I19	08 Jul 2024	Low Tide Time	554
I19	08 Jul 2024	Comments	
I19	16 Jul 2024	Arrive Time	1036
I19	16 Jul 2024	Depart Time	1040
I19	16 Jul 2024	Air Temp (C)	19.2
I19	16 Jul 2024	Visibility (mi)	8
I19	16 Jul 2024	Wind Speed (kts)	5.6
I19	16 Jul 2024	Wind Dir	NW
I19	16 Jul 2024	Sea State	Calm
I19	16 Jul 2024	High Tide Time	1754
I19	16 Jul 2024	Low Tide Time	100
I19	16 Jul 2024	Comments	
I19	23 Jul 2024	Arrive Time	1124
I19	23 Jul 2024	Depart Time	1127
I19	23 Jul 2024	Air Temp (C)	20.2
I19	23 Jul 2024	Visibility (mi)	4
I19	23 Jul 2024	Wind Speed (kts)	7.9
I19	23 Jul 2024	Wind Dir	S
I19	23 Jul 2024	Sea State	Calm
I19	23 Jul 2024	High Tide Time	2306
I19	23 Jul 2024	Low Tide Time	530
I19	23 Jul 2024	Comments	
I19	31 Jul 2024	Arrive Time	1142
I19	31 Jul 2024	Depart Time	1145
I19	31 Jul 2024	Air Temp (C)	18
I19	31 Jul 2024	Visibility (mi)	10
I19	31 Jul 2024	Wind Speed (kts)	2.4
I19	31 Jul 2024	Wind Dir	W
I19	31 Jul 2024	Sea State	Regular Swell
I19	31 Jul 2024	High Tide Time	1854
I19	31 Jul 2024	Low Tide Time	148
I19	31 Jul 2024	Comments	

Station	Date	Parameter	Value
I40	01 Jul 2024	Arrive Time	1044
I40	01 Jul 2024	Depart Time	1048
I40	01 Jul 2024	Air Temp (C)	17.6
I40	01 Jul 2024	Visibility (mi)	5
I40	01 Jul 2024	Wind Speed (kts)	11.2
I40	01 Jul 2024	Wind Dir	S
I40	01 Jul 2024	Sea State	Calm
I40	01 Jul 2024	High Tide Time	1818
I40	01 Jul 2024	Low Tide Time	54
I40	01 Jul 2024	Comments	Sewage-like Odor
I40	08 Jul 2024	Arrive Time	1153
I40	08 Jul 2024	Depart Time	1156
I40	08 Jul 2024	Air Temp (C)	19.3
I40	08 Jul 2024	Visibility (mi)	5
I40	08 Jul 2024	Wind Speed (kts)	8.4
I40	08 Jul 2024	Wind Dir	W
I40	08 Jul 2024	Sea State	Calm
I40	08 Jul 2024	High Tide Time	2306
I40	08 Jul 2024	Low Tide Time	554
I40	08 Jul 2024	Comments	
I40	16 Jul 2024	Arrive Time	1050
I40	16 Jul 2024	Depart Time	1053
I40	16 Jul 2024	Air Temp (C)	19.3
I40	16 Jul 2024	Visibility (mi)	8
I40	16 Jul 2024	Wind Speed (kts)	5.2
I40	16 Jul 2024	Wind Dir	W
I40	16 Jul 2024	Sea State	Calm
I40	16 Jul 2024	High Tide Time	1754
I40	16 Jul 2024	Low Tide Time	100
I40	16 Jul 2024	Comments	
I40	23 Jul 2024	Arrive Time	1135
I40	23 Jul 2024	Depart Time	1139
I40	23 Jul 2024	Air Temp (C)	20.4
I40	23 Jul 2024	Visibility (mi)	4
I40	23 Jul 2024	Wind Speed (kts)	4.7
I40	23 Jul 2024	Wind Dir	S
I40	23 Jul 2024	Sea State	Calm
I40	23 Jul 2024	High Tide Time	2306
I40	23 Jul 2024	Low Tide Time	530
I40	23 Jul 2024	Comments	
I40	31 Jul 2024	Arrive Time	1153
I40	31 Jul 2024	Depart Time	1158
I40	31 Jul 2024	Air Temp (C)	18.1
I40	31 Jul 2024	Visibility (mi)	10
I40	31 Jul 2024	Wind Speed (kts)	5.5
I40	31 Jul 2024	Wind Dir	W
I40	31 Jul 2024	Sea State	Regular Swell
I40	31 Jul 2024	High Tide Time	1854
I40	31 Jul 2024	Low Tide Time	148
I40	31 Jul 2024	Comments	
I24	01 Jul 2024	Arrive Time	1053
I24	01 Jul 2024	Depart Time	1057
I24	01 Jul 2024	Air Temp (C)	17.7
I24	01 Jul 2024	Visibility (mi)	5
I24	01 Jul 2024	Wind Speed (kts)	9.3
I24	01 Jul 2024	Wind Dir	S

Station	Date	Parameter	Value
I24	01 Jul 2024	Sea State	Calm
I24	01 Jul 2024	High Tide Time	1818
I24	01 Jul 2024	Low Tide Time	54
I24	01 Jul 2024	Comments	
I24	08 Jul 2024	Arrive Time	1202
I24	08 Jul 2024	Depart Time	1206
I24	08 Jul 2024	Air Temp (C)	19.3
I24	08 Jul 2024	Visibility (mi)	5
I24	08 Jul 2024	Wind Speed (kts)	7.3
I24	08 Jul 2024	Wind Dir	W
I24	08 Jul 2024	Sea State	Calm
I24	08 Jul 2024	High Tide Time	2306
I24	08 Jul 2024	Low Tide Time	554
I24	08 Jul 2024	Comments	
I24	16 Jul 2024	Arrive Time	1058
I24	16 Jul 2024	Depart Time	1102
I24	16 Jul 2024	Air Temp (C)	19.2
I24	16 Jul 2024	Visibility (mi)	8
I24	16 Jul 2024	Wind Speed (kts)	5
I24	16 Jul 2024	Wind Dir	W
I24	16 Jul 2024	Sea State	Calm
I24	16 Jul 2024	High Tide Time	1754
I24	16 Jul 2024	Low Tide Time	100
I24	16 Jul 2024	Comments	
I24	23 Jul 2024	Arrive Time	1143
I24	23 Jul 2024	Depart Time	1146
I24	23 Jul 2024	Air Temp (C)	20.7
I24	23 Jul 2024	Visibility (mi)	4
I24	23 Jul 2024	Wind Speed (kts)	1.2
I24	23 Jul 2024	Wind Dir	NW
I24	23 Jul 2024	Sea State	Calm
I24	23 Jul 2024	High Tide Time	2306
I24	23 Jul 2024	Low Tide Time	530
I24	23 Jul 2024	Comments	
I24	31 Jul 2024	Arrive Time	1202
I24	31 Jul 2024	Depart Time	1210
I24	31 Jul 2024	Air Temp (C)	18.2
I24	31 Jul 2024	Visibility (mi)	10
I24	31 Jul 2024	Wind Speed (kts)	8.1
I24	31 Jul 2024	Wind Dir	W
I24	31 Jul 2024	Sea State	Regular Swell
I24	31 Jul 2024	High Tide Time	1854
I24	31 Jul 2024	Low Tide Time	148
I24	31 Jul 2024	Comments	Bubble in CDOM in 1st cast; use 2nd cast
I25	01 Jul 2024	Arrive Time	1058
I25	01 Jul 2024	Depart Time	1101
I25	01 Jul 2024	Air Temp (C)	17.9
I25	01 Jul 2024	Visibility (mi)	5
I25	01 Jul 2024	Wind Speed (kts)	9.8
I25	01 Jul 2024	Wind Dir	SW
I25	01 Jul 2024	Sea State	Calm
I25	01 Jul 2024	High Tide Time	1818
I25	01 Jul 2024	Low Tide Time	54
I25	01 Jul 2024	Comments	
I25	08 Jul 2024	Arrive Time	1209

Station	Date	Parameter	Value
I25	08 Jul 2024	Depart Time	1212
I25	08 Jul 2024	Air Temp (C)	19.4
I25	08 Jul 2024	Visibility (mi)	5
I25	08 Jul 2024	Wind Speed (kts)	4.5
I25	08 Jul 2024	Wind Dir	NW
I25	08 Jul 2024	Sea State	Calm
I25	08 Jul 2024	High Tide Time	2306
I25	08 Jul 2024	Low Tide Time	554
I25	08 Jul 2024	Comments	
I25	16 Jul 2024	Arrive Time	1106
I25	16 Jul 2024	Depart Time	1110
I25	16 Jul 2024	Air Temp (C)	19.4
I25	16 Jul 2024	Visibility (mi)	8
I25	16 Jul 2024	Wind Speed (kts)	3.2
I25	16 Jul 2024	Wind Dir	W
I25	16 Jul 2024	Sea State	Calm
I25	16 Jul 2024	High Tide Time	1754
I25	16 Jul 2024	Low Tide Time	100
I25	16 Jul 2024	Comments	
I25	23 Jul 2024	Arrive Time	1155
I25	23 Jul 2024	Depart Time	1203
I25	23 Jul 2024	Air Temp (C)	21.3
I25	23 Jul 2024	Visibility (mi)	4
I25	23 Jul 2024	Wind Speed (kts)	12.4
I25	23 Jul 2024	Wind Dir	NW
I25	23 Jul 2024	Sea State	Calm
I25	23 Jul 2024	High Tide Time	2306
I25	23 Jul 2024	Low Tide Time	530
I25	23 Jul 2024	Comments	
I25	31 Jul 2024	Arrive Time	1211
I25	31 Jul 2024	Depart Time	1214
I25	31 Jul 2024	Air Temp (C)	18.3
I25	31 Jul 2024	Visibility (mi)	10
I25	31 Jul 2024	Wind Speed (kts)	6.3
I25	31 Jul 2024	Wind Dir	W
I25	31 Jul 2024	Sea State	Regular Swell
I25	31 Jul 2024	High Tide Time	1854
I25	31 Jul 2024	Low Tide Time	148
I25	31 Jul 2024	Comments	
I39	01 Jul 2024	Arrive Time	1011
I39	01 Jul 2024	Depart Time	1016
I39	01 Jul 2024	Air Temp (C)	17.7
I39	01 Jul 2024	Visibility (mi)	5
I39	01 Jul 2024	Wind Speed (kts)	8.4
I39	01 Jul 2024	Wind Dir	S
I39	01 Jul 2024	Sea State	Calm
I39	01 Jul 2024	High Tide Time	1818
I39	01 Jul 2024	Low Tide Time	54
I39	01 Jul 2024	Comments	Another thermocline-related salinity spike. Some outlier removal may be necessary.
I39	08 Jul 2024	Arrive Time	1118
I39	08 Jul 2024	Depart Time	1122
I39	08 Jul 2024	Air Temp (C)	19.2
I39	08 Jul 2024	Visibility (mi)	5
I39	08 Jul 2024	Wind Speed (kts)	3.9
I39	08 Jul 2024	Wind Dir	S

Station	Date	Parameter	Value
I39	08 Jul 2024	Sea State	Calm
I39	08 Jul 2024	High Tide Time	2306
I39	08 Jul 2024	Low Tide Time	554
I39	08 Jul 2024	Comments	
I39	16 Jul 2024	Arrive Time	1012
I39	16 Jul 2024	Depart Time	1019
I39	16 Jul 2024	Air Temp (C)	19.2
I39	16 Jul 2024	Visibility (mi)	6
I39	16 Jul 2024	Wind Speed (kts)	3.5
I39	16 Jul 2024	Wind Dir	NW
I39	16 Jul 2024	Sea State	Calm
I39	16 Jul 2024	High Tide Time	1754
I39	16 Jul 2024	Low Tide Time	100
I39	16 Jul 2024	Comments	Data from 2nd cast. Thermocline-related salinity spikes worse in first cast- saved in hold folder.
I39	23 Jul 2024	Arrive Time	1101
I39	23 Jul 2024	Depart Time	1109
I39	23 Jul 2024	Air Temp (C)	20.5
I39	23 Jul 2024	Visibility (mi)	4
I39	23 Jul 2024	Wind Speed (kts)	0.5
I39	23 Jul 2024	Wind Dir	E
I39	23 Jul 2024	Sea State	Calm
I39	23 Jul 2024	High Tide Time	2306
I39	23 Jul 2024	Low Tide Time	530
I39	23 Jul 2024	Comments	
I39	31 Jul 2024	Arrive Time	1223
I39	31 Jul 2024	Depart Time	1226
I39	31 Jul 2024	Air Temp (C)	18.4
I39	31 Jul 2024	Visibility (mi)	10
I39	31 Jul 2024	Wind Speed (kts)	7.3
I39	31 Jul 2024	Wind Dir	NW
I39	31 Jul 2024	Sea State	Regular Swell
I39	31 Jul 2024	High Tide Time	1854
I39	31 Jul 2024	Low Tide Time	148
I39	31 Jul 2024	Comments	
I26	01 Jul 2024	Arrive Time	1107
I26	01 Jul 2024	Depart Time	1111
I26	01 Jul 2024	Air Temp (C)	17.9
I26	01 Jul 2024	Visibility (mi)	5
I26	01 Jul 2024	Wind Speed (kts)	7.5
I26	01 Jul 2024	Wind Dir	SW
I26	01 Jul 2024	Sea State	Calm
I26	01 Jul 2024	High Tide Time	1818
I26	01 Jul 2024	Low Tide Time	54
I26	01 Jul 2024	Comments	
I26	08 Jul 2024	Arrive Time	1217
I26	08 Jul 2024	Depart Time	1220
I26	08 Jul 2024	Air Temp (C)	19.3
I26	08 Jul 2024	Visibility (mi)	5
I26	08 Jul 2024	Wind Speed (kts)	6.5
I26	08 Jul 2024	Wind Dir	W
I26	08 Jul 2024	Sea State	Calm
I26	08 Jul 2024	High Tide Time	2306
I26	08 Jul 2024	Low Tide Time	554
I26	08 Jul 2024	Comments	

Station	Date	Parameter	Value
I26	16 Jul 2024	Arrive Time	1116
I26	16 Jul 2024	Depart Time	1121
I26	16 Jul 2024	Air Temp (C)	19.3
I26	16 Jul 2024	Visibility (mi)	8
I26	16 Jul 2024	Wind Speed (kts)	6.8
I26	16 Jul 2024	Wind Dir	NW
I26	16 Jul 2024	Sea State	Calm
I26	16 Jul 2024	High Tide Time	1754
I26	16 Jul 2024	Low Tide Time	100
I26	16 Jul 2024	Comments	surface sample taken on upcast- Niskin 4.
I26	23 Jul 2024	Arrive Time	1208
I26	23 Jul 2024	Depart Time	1220
I26	23 Jul 2024	Air Temp (C)	21.4
I26	23 Jul 2024	Visibility (mi)	4
I26	23 Jul 2024	Wind Speed (kts)	0
I26	23 Jul 2024	Wind Dir	SE
I26	23 Jul 2024	Sea State	Calm
I26	23 Jul 2024	High Tide Time	2306
I26	23 Jul 2024	Low Tide Time	530
I26	23 Jul 2024	Comments	
I26	31 Jul 2024	Arrive Time	1236
I26	31 Jul 2024	Depart Time	1239
I26	31 Jul 2024	Air Temp (C)	18.3
I26	31 Jul 2024	Visibility (mi)	10
I26	31 Jul 2024	Wind Speed (kts)	7.7
I26	31 Jul 2024	Wind Dir	NW
I26	31 Jul 2024	Sea State	Regular Swell
I26	31 Jul 2024	High Tide Time	1854
I26	31 Jul 2024	Low Tide Time	148
I26	31 Jul 2024	Comments	
I32	01 Jul 2024	Arrive Time	1120
I32	01 Jul 2024	Depart Time	1124
I32	01 Jul 2024	Air Temp (C)	18.2
I32	01 Jul 2024	Visibility (mi)	5
I32	01 Jul 2024	Wind Speed (kts)	8.1
I32	01 Jul 2024	Wind Dir	SW
I32	01 Jul 2024	Sea State	Calm
I32	01 Jul 2024	High Tide Time	1818
I32	01 Jul 2024	Low Tide Time	54
I32	01 Jul 2024	Comments	
I32	08 Jul 2024	Arrive Time	1228
I32	08 Jul 2024	Depart Time	1232
I32	08 Jul 2024	Air Temp (C)	19.3
I32	08 Jul 2024	Visibility (mi)	5
I32	08 Jul 2024	Wind Speed (kts)	6.8
I32	08 Jul 2024	Wind Dir	W
I32	08 Jul 2024	Sea State	Calm
I32	08 Jul 2024	High Tide Time	2306
I32	08 Jul 2024	Low Tide Time	554
I32	08 Jul 2024	Comments	
I32	16 Jul 2024	Arrive Time	1131
I32	16 Jul 2024	Depart Time	1136
I32	16 Jul 2024	Air Temp (C)	19.3
I32	16 Jul 2024	Visibility (mi)	8
I32	16 Jul 2024	Wind Speed (kts)	9.2
I32	16 Jul 2024	Wind Dir	W

Station	Date	Parameter	Value
I32	16 Jul 2024	Sea State	Calm
I32	16 Jul 2024	High Tide Time	1754
I32	16 Jul 2024	Low Tide Time	100
I32	16 Jul 2024	Comments	Surface samle collected on upcast
I32	23 Jul 2024	Arrive Time	1220
I32	23 Jul 2024	Depart Time	1226
I32	23 Jul 2024	Air Temp (C)	21
I32	23 Jul 2024	Visibility (mi)	4
I32	23 Jul 2024	Wind Speed (kts)	4
I32	23 Jul 2024	Wind Dir	W
I32	23 Jul 2024	Sea State	Calm
I32	23 Jul 2024	High Tide Time	2306
I32	23 Jul 2024	Low Tide Time	530
I32	23 Jul 2024	Comments	
I32	31 Jul 2024	Arrive Time	1248
I32	31 Jul 2024	Depart Time	1254
I32	31 Jul 2024	Air Temp (C)	18.3
I32	31 Jul 2024	Visibility (mi)	10
I32	31 Jul 2024	Wind Speed (kts)	8.7
I32	31 Jul 2024	Wind Dir	NW
I32	31 Jul 2024	Sea State	Regular Swell
I32	31 Jul 2024	High Tide Time	1854
I32	31 Jul 2024	Low Tide Time	148
I32	31 Jul 2024	Comments	

Comments

date	station	depth	parmcode	comments
08-Jul-2024	I26	2		Rinse/Funnel Sterility QC for the Enterococcus had growth, but the bacteria did not grow on mEI in the follow-up test. This doesn't affect the results
08-Jul-2024	I26	6		Rinse/Funnel Sterility QC for the Enterococcus had growth, but the bacteria did not grow on mEI in the follow-up test. This doesn't affect the results
08-Jul-2024	I26	9		Rinse/Funnel Sterility QC for the Enterococcus had growth, but the bacteria did not grow on mEI in the follow-up test. This doesn't affect the results
08-Jul-2024	I32	2		Rinse/Funnel Sterility QC for the Enterococcus had growth, but the bacteria did not grow on mEI in the follow-up test. This doesn't affect the results
08-Jul-2024	I32	6		Rinse/Funnel Sterility QC for the Enterococcus had growth, but the bacteria did not grow on mEI in the follow-up test. This doesn't affect the results
08-Jul-2024	I32	9		Rinse/Funnel Sterility QC for the Enterococcus had growth, but the bacteria did not grow on mEI in the follow-up test. This doesn't affect the results
16-Jul-2024	I19	2		Rinse/Funnel Sterility QC for the Enterococcus had growth, but the bacteria did not grow on mEI in the follow-up test. This doesn't affect the results
16-Jul-2024	I19	11		Rinse/Funnel Sterility QC for the Enterococcus had growth, but the bacteria did not grow on mEI in the follow-up test. This doesn't affect the results
16-Jul-2024	I40	2		Rinse/Funnel Sterility QC for the Enterococcus had growth, but the bacteria did not grow on mEI in the follow-up test. This doesn't affect the results
16-Jul-2024	I40	9		Rinse/Funnel Sterility QC for the Enterococcus had growth, but the bacteria did not grow on mEI in the follow-up test. This doesn't affect the results

Table 3.9

Summary of CTD profile data from the SBOO 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)
I19	01 Jul 2024	1	20.49	67.44	10.6	33.59	8.4	23.6	3.53
I19	01 Jul 2024	2	20.45	67.64	10.5	33.59	8.4	23.6	3.82
I19	01 Jul 2024	3	20.13	68.51	10.0	33.62	8.4	23.7	4.50
I19	01 Jul 2024	4	19.42	70.64	9.2	33.64	8.4	23.9	5.72
I19	01 Jul 2024	5	18.53	70.52	8.2	33.63	8.3	24.1	8.40
I19	01 Jul 2024	6	17.86	68.86	7.0	33.65	8.2	24.3	10.40
I19	01 Jul 2024	7	15.13	70.33	5.5	33.73	8.1	25.0	8.61
I19	01 Jul 2024	8	13.41	79.13	4.4	33.68	7.8	25.3	5.01
I19	01 Jul 2024	9	13.51	80.18	3.9	33.55	7.7	25.2	2.74
I19	01 Jul 2024	10	12.46	74.78	3.7	33.73	7.7	25.5	2.28
I19	08 Jul 2024	1	19.12	73.19	9.2	33.58	8.3	23.9	2.47
I19	08 Jul 2024	2	19.15	73.01	9.1	33.59	8.3	23.9	2.54
I19	08 Jul 2024	3	18.80	72.60	9.2	33.62	8.3	24.0	2.84
I19	08 Jul 2024	4	17.95	72.47	9.7	33.65	8.3	24.2	3.27
I19	08 Jul 2024	5	17.42	74.65	10.0	33.64	8.3	24.4	3.67
I19	08 Jul 2024	6	17.28	76.17	10.1	33.62	8.3	24.4	4.07
I19	08 Jul 2024	7	16.53	76.81	9.8	33.68	8.3	24.6	4.10
I19	08 Jul 2024	8	15.94	78.43	9.2	33.65	8.2	24.7	3.72
I19	08 Jul 2024	9	15.59	77.12	8.5	33.66	8.2	24.8	3.74
I19	08 Jul 2024	10	15.35	74.14	8.0	33.65	8.2	24.9	3.81
I19	16 Jul 2024	1	18.51	34.09	7.8	33.49	8.3	24.0	11.30
I19	16 Jul 2024	2	17.10	35.83	7.1	33.69	8.2	24.5	11.70
I19	16 Jul 2024	3	16.67	46.23	6.8	33.65	8.1	24.6	10.51
I19	16 Jul 2024	4	15.45	64.05	7.2	33.71	8.1	24.9	7.64
I19	16 Jul 2024	5	15.29	79.71	7.0	33.66	8.1	24.9	5.15
I19	16 Jul 2024	6	14.98	83.72	6.3	33.67	8.0	25.0	4.26
I19	16 Jul 2024	7	14.91	70.52	5.7	33.66	8.0	25.0	3.98
I19	16 Jul 2024	8	14.92	59.23	5.6	33.66	8.0	25.0	3.61
I19	16 Jul 2024	9	14.59	55.78	5.6	33.67	7.9	25.0	2.92
I19	16 Jul 2024	10	14.58	64.52	5.5	33.66	7.9	25.0	1.92
I19	23 Jul 2024	1	19.93	70.65	9.0	33.53	8.3	23.7	1.85
I19	23 Jul 2024	2	19.80	70.56	9.0	33.53	8.3	23.7	2.00
I19	23 Jul 2024	3	19.45	70.56	9.1	33.53	8.3	23.8	2.55
I19	23 Jul 2024	4	19.02	68.61	9.0	33.53	8.3	23.9	3.69
I19	23 Jul 2024	5	18.51	63.77	8.5	33.53	8.3	24.0	5.58
I19	23 Jul 2024	6	17.24	57.85	8.0	33.56	8.2	24.4	8.94
I19	23 Jul 2024	7	15.69	49.67	7.4	33.55	8.1	24.7	14.37
I19	23 Jul 2024	8	14.35	43.32	6.9	33.57	8.0	25.0	16.56
I19	23 Jul 2024	9	13.66	46.39	6.2	33.55	8.0	25.1	14.27
I19	23 Jul 2024	10	13.27	52.62	5.4	33.57	7.9	25.2	10.52
I19	31 Jul 2024	1	16.40	63.72	8.9	33.47	8.1	24.5	1.99
I19	31 Jul 2024	2	15.17	63.46	9.0	33.51	8.1	24.8	2.36
I19	31 Jul 2024	3	14.55	65.15	9.0	33.50	8.1	24.9	6.05
I19	31 Jul 2024	4	14.13	63.41	8.5	33.49	8.1	25.0	13.42
I19	31 Jul 2024	5	13.66	57.56	7.6	33.50	8.0	25.1	17.07
I19	31 Jul 2024	6	13.28	54.73	6.8	33.50	7.9	25.2	12.91
I19	31 Jul 2024	7	13.20	58.01	6.3	33.49	7.9	25.2	9.52
I19	31 Jul 2024	8	13.18	60.26	6.2	33.48	7.9	25.2	8.18
I19	31 Jul 2024	9	13.16	60.26	6.2	33.49	7.9	25.2	7.50
I19	31 Jul 2024	10	13.16	59.88	6.2	33.49	7.9	25.2	7.26

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I40	01 Jul 2024	1	20.73	36.92	8.7	33.34	8.4	23.3	14.78
I40	01 Jul 2024	2	20.46	38.94	8.2	33.49	8.4	23.5	15.26
I40	01 Jul 2024	3	19.98	49.67	7.3	33.52	8.3	23.6	12.42
I40	01 Jul 2024	4	19.31	57.31	6.7	33.54	8.3	23.8	10.31
I40	01 Jul 2024	5	17.04	62.40	5.5	33.65	8.1	24.5	7.74
I40	01 Jul 2024	6	15.61	74.13	5.0	33.61	8.0	24.8	5.86
I40	01 Jul 2024	7	14.11	81.18	4.3	33.66	7.9	25.1	4.14
I40	01 Jul 2024	8	13.28	87.08	4.0	33.63	7.8	25.3	2.11
I40	01 Jul 2024	9	12.50	88.73	3.7	33.66	7.7	25.5	1.13
I40	01 Jul 2024	10	12.08	87.57	3.5	33.66	7.7	25.5	0.73
I40	08 Jul 2024	1	19.20	73.37	10.1	33.57	8.4	23.9	3.07
I40	08 Jul 2024	2	19.07	73.58	10.2	33.59	8.4	23.9	3.32
I40	08 Jul 2024	3	18.76	73.12	10.4	33.60	8.4	24.0	5.76
I40	08 Jul 2024	4	18.46	70.06	10.5	33.61	8.4	24.1	9.35
I40	08 Jul 2024	5	18.16	70.84	10.4	33.61	8.4	24.2	8.30
I40	08 Jul 2024	6	17.72	76.32	10.6	33.62	8.4	24.3	6.99
I40	08 Jul 2024	7	17.41	78.57	10.3	33.63	8.3	24.4	6.51
I40	08 Jul 2024	8	17.13	78.58	9.9	33.62	8.3	24.4	5.14
I40	08 Jul 2024	9	17.11	79.11	9.5	33.62	8.3	24.4	3.87
I40	08 Jul 2024	10	17.01	78.46	9.1	33.62	8.3	24.5	3.21
I40	16 Jul 2024	1	19.02	54.49	9.6	33.63	8.4	24.0	6.08
I40	16 Jul 2024	2	18.75	53.44	9.3	33.66	8.4	24.1	6.96
I40	16 Jul 2024	3	18.53	51.82	8.6	33.62	8.3	24.1	8.09
I40	16 Jul 2024	4	17.46	51.09	7.3	33.67	8.2	24.4	9.13
I40	16 Jul 2024	5	16.78	51.13	6.6	33.66	8.1	24.5	10.03
I40	16 Jul 2024	6	15.85	54.31	6.8	33.70	8.1	24.8	7.25
I40	16 Jul 2024	7	15.58	67.55	6.6	33.67	8.1	24.8	4.21
I40	16 Jul 2024	8	15.14	75.96	6.0	33.67	8.0	24.9	2.75
I40	16 Jul 2024	9	14.74	69.85	5.7	33.66	8.0	25.0	2.07
I40	16 Jul 2024	10	14.52	62.79	5.7	33.66	7.9	25.0	1.83
I40	23 Jul 2024	1	19.81	65.44	8.7	33.52	8.3	23.7	2.50
I40	23 Jul 2024	2	19.77	64.22	8.5	33.51	8.3	23.7	3.26
I40	23 Jul 2024	3	19.24	61.81	8.0	33.49	8.2	23.8	4.51
I40	23 Jul 2024	4	18.51	57.81	7.8	33.53	8.2	24.0	6.47
I40	23 Jul 2024	5	17.86	59.20	8.2	33.54	8.2	24.2	7.59
I40	23 Jul 2024	6	15.97	57.48	8.9	33.57	8.2	24.7	12.14
I40	23 Jul 2024	7	14.94	48.35	8.4	33.53	8.2	24.9	16.74
I40	23 Jul 2024	8	14.08	47.90	7.2	33.56	8.1	25.1	17.04
I40	23 Jul 2024	9	13.87	51.24	6.0	33.55	8.0	25.1	14.51
I40	23 Jul 2024	10	13.49	47.28	4.9	33.60	7.9	25.2	11.72
I40	31 Jul 2024	1	16.62	58.75	9.5	33.36	8.2	24.3	3.88
I40	31 Jul 2024	2	15.06	56.85	9.5	33.53	8.2	24.8	5.37
I40	31 Jul 2024	3	14.49	58.83	9.4	33.49	8.1	24.9	6.15
I40	31 Jul 2024	4	14.21	66.86	9.3	33.48	8.1	25.0	6.83
I40	31 Jul 2024	5	13.86	70.77	9.2	33.49	8.1	25.1	8.28
I40	31 Jul 2024	6	13.80	71.73	9.0	33.48	8.1	25.1	8.83
I40	31 Jul 2024	7	13.72	73.50	8.9	33.48	8.1	25.1	7.82
I40	31 Jul 2024	8	13.54	75.53	8.4	33.49	8.1	25.1	6.62
I40	31 Jul 2024	9	13.35	76.82	7.8	33.49	8.0	25.2	5.80
I40	31 Jul 2024	10	13.26	75.15	7.3	33.49	8.0	25.2	5.57
I24	01 Jul 2024	1	20.42	70.11	9.5	33.47	8.3	23.5	1.89
I24	01 Jul 2024	2	20.42	75.99	9.5	33.51	8.3	23.5	1.97
I24	01 Jul 2024	3	19.57	77.35	9.9	33.58	8.4	23.8	2.47
I24	01 Jul 2024	4	18.23	78.92	10.3	33.53	8.3	24.1	2.43
I24	01 Jul 2024	5	17.38	83.85	10.0	33.51	8.3	24.3	2.06
I24	01 Jul 2024	6	16.10	87.50	10.1	33.50	8.3	24.6	1.74

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I24	01 Jul 2024	7	15.09	90.82	10.1	33.47	8.2	24.8	1.71
I24	01 Jul 2024	8	14.24	90.95	8.8	33.54	8.2	25.0	3.13
I24	01 Jul 2024	9	13.46	83.85	6.7	33.60	8.0	25.2	4.28
I24	01 Jul 2024	10	13.25	87.71	5.8	33.62	7.9	25.3	3.32
I24	08 Jul 2024	1	19.75	64.36	9.3	33.52	8.3	23.7	3.44
I24	08 Jul 2024	2	19.35	63.66	9.5	33.57	8.3	23.8	4.47
I24	08 Jul 2024	3	18.99	65.19	10.2	33.59	8.4	23.9	5.63
I24	08 Jul 2024	4	18.95	70.17	10.3	33.59	8.4	24.0	8.92
I24	08 Jul 2024	5	18.46	69.71	9.9	33.61	8.3	24.1	9.87
I24	08 Jul 2024	6	18.03	74.60	10.4	33.61	8.4	24.2	9.51
I24	08 Jul 2024	7	17.28	76.55	10.5	33.65	8.4	24.4	9.40
I24	08 Jul 2024	8	16.68	76.47	10.0	33.63	8.3	24.5	9.81
I24	08 Jul 2024	9	16.15	77.48	8.9	33.64	8.2	24.7	6.09
I24	16 Jul 2024	1	19.89	63.85	11.1	33.62	8.5	23.7	3.02
I24	16 Jul 2024	2	19.78	62.93	10.9	33.62	8.5	23.8	3.98
I24	16 Jul 2024	3	19.27	59.92	10.2	33.67	8.4	23.9	7.24
I24	16 Jul 2024	4	18.27	55.87	9.6	33.67	8.4	24.2	16.51
I24	16 Jul 2024	5	17.99	51.31	9.4	33.64	8.3	24.2	20.07
I24	16 Jul 2024	6	17.82	51.34	9.2	33.64	8.3	24.3	18.68
I24	16 Jul 2024	7	16.82	58.38	8.4	33.68	8.3	24.5	15.35
I24	16 Jul 2024	8	16.11	65.03	7.2	33.67	8.2	24.7	10.41
I24	16 Jul 2024	9	14.92	75.40	6.4	33.68	8.1	25.0	5.60
I24	23 Jul 2024	1	19.61	72.78	9.0	33.53	8.3	23.7	1.11
I24	23 Jul 2024	2	19.48	73.07	8.9	33.53	8.3	23.8	1.23
I24	23 Jul 2024	3	18.40	73.47	9.0	33.58	8.3	24.1	1.45
I24	23 Jul 2024	4	17.51	71.05	9.1	33.55	8.3	24.3	2.35
I24	23 Jul 2024	5	17.05	63.51	8.9	33.54	8.2	24.4	4.28
I24	23 Jul 2024	6	16.09	55.49	9.2	33.55	8.2	24.6	9.52
I24	23 Jul 2024	7	14.44	43.75	8.2	33.57	8.2	25.0	16.39
I24	23 Jul 2024	8	13.63	50.96	6.0	33.59	8.0	25.2	13.28
I24	23 Jul 2024	9	13.11	61.72	4.5	33.61	7.8	25.3	7.59
I24	23 Jul 2024	10	13.04	58.20	4.0	33.60	7.8	25.3	5.04
I24	31 Jul 2024	1	17.29	56.86	9.6	33.45	8.2	24.3	3.34
I24	31 Jul 2024	2	15.28	56.58	9.9	33.62	8.2	24.8	3.86
I24	31 Jul 2024	3	14.60	56.68	10.0	33.53	8.2	24.9	5.83
I24	31 Jul 2024	4	14.37	58.89	9.9	33.50	8.2	25.0	10.28
I24	31 Jul 2024	5	13.98	58.86	9.2	33.51	8.1	25.0	16.77
I24	31 Jul 2024	6	13.56	63.21	8.5	33.51	8.1	25.1	15.53
I24	31 Jul 2024	7	13.32	70.36	7.9	33.51	8.0	25.2	11.75
I24	31 Jul 2024	8	13.24	75.59	7.5	33.50	8.0	25.2	8.63
I24	31 Jul 2024	9	13.11	79.19	7.1	33.50	8.0	25.2	6.70
I24	31 Jul 2024	10	12.97	80.56	6.6	33.49	7.9	25.2	5.71
I25	01 Jul 2024	1	20.51	76.93	9.2	33.48	8.3	23.5	1.62
I25	01 Jul 2024	2	20.47	76.93	9.3	33.49	8.3	23.5	1.79
I25	01 Jul 2024	3	20.15	77.22	9.7	33.54	8.3	23.6	2.42
I25	01 Jul 2024	4	19.31	78.38	10.0	33.57	8.4	23.8	2.90
I25	01 Jul 2024	5	16.64	83.31	10.3	33.56	8.3	24.5	2.38
I25	01 Jul 2024	6	15.20	90.20	10.4	33.46	8.2	24.7	1.64
I25	01 Jul 2024	7	13.88	90.77	8.6	33.54	8.2	25.1	2.86
I25	01 Jul 2024	8	13.30	86.38	5.8	33.61	7.9	25.3	4.82
I25	08 Jul 2024	1	19.57	56.48	9.5	33.54	8.3	23.8	6.95
I25	08 Jul 2024	2	19.17	57.32	10.0	33.58	8.4	23.9	9.87
I25	08 Jul 2024	3	19.05	60.40	10.3	33.59	8.4	23.9	14.29
I25	08 Jul 2024	4	18.96	67.31	10.3	33.59	8.4	24.0	12.08
I25	08 Jul 2024	5	18.76	75.01	10.2	33.61	8.4	24.0	9.11

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I25	08 Jul 2024	6	18.22	77.61	9.7	33.62	8.3	24.2	6.28
I25	08 Jul 2024	7	17.37	80.16	10.0	33.66	8.3	24.4	3.94
I25	08 Jul 2024	8	16.47	81.71	9.4	33.66	8.3	24.6	3.27
I25	08 Jul 2024	9	16.08	81.94	8.5	33.64	8.2	24.7	2.23
I25	16 Jul 2024	1	19.92	67.99	11.3	33.62	8.5	23.7	2.25
I25	16 Jul 2024	2	19.83	67.09	11.0	33.62	8.5	23.8	2.89
I25	16 Jul 2024	3	19.14	64.15	10.6	33.65	8.4	24.0	8.48
I25	16 Jul 2024	4	18.75	53.30	10.2	33.63	8.4	24.0	18.72
I25	16 Jul 2024	5	18.63	46.72	9.9	33.62	8.4	24.1	24.64
I25	16 Jul 2024	6	18.26	43.72	9.6	33.64	8.4	24.2	25.50
I25	16 Jul 2024	7	18.09	47.88	9.0	33.63	8.3	24.2	22.49
I25	16 Jul 2024	8	16.33	60.52	7.8	33.72	8.2	24.7	16.18
I25	16 Jul 2024	9	15.52	72.68	7.2	33.66	8.1	24.8	9.05
I25	23 Jul 2024	1	19.86	72.34	8.9	33.54	8.3	23.7	1.09
I25	23 Jul 2024	2	19.45	72.47	8.9	33.55	8.3	23.8	1.23
I25	23 Jul 2024	3	18.82	72.24	8.9	33.55	8.3	24.0	1.55
I25	23 Jul 2024	4	18.22	70.87	8.8	33.56	8.3	24.1	2.02
I25	23 Jul 2024	5	16.98	67.57	8.6	33.56	8.2	24.4	3.61
I25	23 Jul 2024	6	16.55	61.65	8.3	33.54	8.2	24.5	5.76
I25	23 Jul 2024	7	15.80	59.96	8.3	33.56	8.2	24.7	9.39
I25	23 Jul 2024	8	14.05	49.76	7.2	33.60	8.1	25.1	13.46
I25	23 Jul 2024	9	13.70	50.16	5.8	33.58	8.0	25.2	10.45
I25	31 Jul 2024	1	17.11	62.08	9.7	33.40	8.2	24.3	2.57
I25	31 Jul 2024	2	15.56	60.97	10.1	33.54	8.2	24.7	3.61
I25	31 Jul 2024	3	14.56	57.62	10.2	33.50	8.2	24.9	8.66
I25	31 Jul 2024	4	13.97	56.45	9.7	33.51	8.2	25.0	16.06
I25	31 Jul 2024	5	13.52	53.00	8.8	33.49	8.1	25.1	16.36
I25	31 Jul 2024	6	13.36	67.86	8.1	33.48	8.0	25.1	11.74
I25	31 Jul 2024	7	13.47	77.49	7.8	33.47	8.0	25.1	9.06
I25	31 Jul 2024	8	13.26	82.24	7.4	33.48	8.0	25.2	7.08
I25	31 Jul 2024	9	13.27	83.29	7.3	33.48	8.0	25.2	5.21
I39	01 Jul 2024	1	20.46	91.82	8.5	33.55	8.2	23.5	0.63
I39	01 Jul 2024	2	20.45	92.01	8.5	33.56	8.2	23.5	0.62
I39	01 Jul 2024	3	20.29	91.64	8.6	33.57	8.3	23.6	0.75
I39	01 Jul 2024	4	19.87	90.21	8.3	33.59	8.3	23.7	0.99
I39	01 Jul 2024	5	15.97	87.86	8.8	33.70	8.2	24.8	1.57
I39	01 Jul 2024	6	15.40	83.17	8.6	33.56	8.2	24.8	2.82
I39	01 Jul 2024	7	14.08	81.09	8.3	33.53	8.1	25.0	4.75
I39	01 Jul 2024	8	13.39	84.18	8.0	33.47	8.0	25.1	6.26
I39	01 Jul 2024	9	12.29	80.74	7.6	33.49	8.0	25.4	9.74
I39	01 Jul 2024	10	12.04	82.43	7.0	33.53	7.9	25.4	10.25
I39	01 Jul 2024	11	11.98	84.03	6.6	33.54	7.9	25.5	9.23
I39	01 Jul 2024	12	11.99	85.64	6.4	33.55	7.9	25.5	8.19
I39	01 Jul 2024	13	11.86	84.72	6.0	33.58	7.9	25.5	8.59
I39	01 Jul 2024	14	11.65	85.08	5.3	33.63	7.8	25.6	7.57
I39	01 Jul 2024	15	11.32	89.16	4.2	33.71	7.7	25.7	4.55
I39	01 Jul 2024	16	11.19	93.47	3.6	33.72	7.7	25.7	1.69
I39	01 Jul 2024	17	11.07	94.65	3.6	33.73	7.7	25.8	0.87
I39	01 Jul 2024	18	11.07	94.86	3.6	33.73	7.7	25.8	0.55
I39	08 Jul 2024	1	19.84	68.67	9.8	33.55	8.3	23.7	4.33
I39	08 Jul 2024	2	19.45	71.51	10.0	33.59	8.4	23.8	3.94
I39	08 Jul 2024	3	19.32	76.66	10.2	33.59	8.4	23.9	3.08
I39	08 Jul 2024	4	18.87	81.61	10.8	33.62	8.4	24.0	4.67
I39	08 Jul 2024	5	17.76	72.67	10.6	33.64	8.4	24.3	12.71
I39	08 Jul 2024	6	17.58	71.85	9.8	33.61	8.3	24.3	11.91
I39	08 Jul 2024	7	17.19	74.95	9.3	33.62	8.3	24.4	8.36

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I39	08 Jul 2024	8	16.68	76.57	8.8	33.63	8.2	24.5	6.90
I39	08 Jul 2024	9	16.42	76.99	8.3	33.62	8.2	24.6	6.06
I39	08 Jul 2024	10	14.95	76.31	7.5	33.75	8.2	25.0	6.77
I39	08 Jul 2024	11	13.12	76.03	6.4	33.72	8.0	25.4	8.79
I39	08 Jul 2024	12	13.02	78.88	5.8	33.67	7.9	25.4	9.32
I39	08 Jul 2024	13	12.94	77.72	5.6	33.67	7.9	25.4	9.93
I39	08 Jul 2024	14	12.72	79.96	5.4	33.68	7.9	25.4	7.00
I39	08 Jul 2024	15	12.52	84.11	5.2	33.66	7.8	25.5	5.12
I39	08 Jul 2024	16	12.47	85.49	5.2	33.65	7.8	25.5	4.44
I39	08 Jul 2024	17	12.45	86.65	5.1	33.66	7.8	25.5	3.67
I39	08 Jul 2024	18	12.40	86.86	5.0	33.66	7.8	25.5	3.03
I39	16 Jul 2024	1	20.06	77.50	11.4	33.57	8.5	23.7	2.24
I39	16 Jul 2024	2	19.99	76.61	11.4	33.57	8.5	23.7	2.42
I39	16 Jul 2024	3	19.86	75.23	11.3	33.57	8.5	23.7	2.77
I39	16 Jul 2024	4	19.62	75.72	11.0	33.57	8.4	23.8	3.40
I39	16 Jul 2024	5	18.60	77.52	10.7	33.63	8.4	24.1	4.21
I39	16 Jul 2024	6	17.59	79.44	11.1	33.58	8.4	24.3	5.62
I39	16 Jul 2024	7	16.53	76.93	11.1	33.70	8.4	24.6	8.58
I39	16 Jul 2024	8	15.56	77.14	10.0	33.70	8.3	24.8	9.27
I39	16 Jul 2024	9	15.07	83.09	8.7	33.70	8.2	25.0	7.69
I39	16 Jul 2024	10	14.19	86.50	7.3	33.69	8.1	25.1	6.17
I39	16 Jul 2024	11	13.57	89.43	6.2	33.70	8.0	25.3	4.62
I39	16 Jul 2024	12	13.33	91.89	5.6	33.67	7.9	25.3	2.81
I39	16 Jul 2024	13	13.15	93.35	5.5	33.66	7.9	25.3	1.91
I39	16 Jul 2024	14	13.05	93.60	5.2	33.69	7.9	25.4	1.63
I39	16 Jul 2024	15	13.03	92.12	5.0	33.69	7.8	25.4	1.16
I39	16 Jul 2024	16	13.00	91.26	4.9	33.70	7.8	25.4	0.87
I39	16 Jul 2024	17	13.00	91.08	4.8	33.70	7.8	25.4	0.60
I39	16 Jul 2024	18	12.99	90.97	4.8	33.69	7.8	25.4	0.49
I39	23 Jul 2024	1	18.14	73.71	8.4	33.56	8.2	24.1	1.43
I39	23 Jul 2024	2	17.72	75.47	8.3	33.58	8.2	24.3	1.51
I39	23 Jul 2024	3	16.84	76.37	8.3	33.57	8.2	24.5	2.00
I39	23 Jul 2024	4	16.51	76.70	8.1	33.55	8.2	24.5	2.58
I39	23 Jul 2024	5	16.24	76.29	7.9	33.56	8.2	24.6	3.32
I39	23 Jul 2024	6	15.37	76.02	8.0	33.55	8.2	24.8	4.45
I39	23 Jul 2024	7	14.60	78.40	8.2	33.50	8.2	24.9	4.86
I39	23 Jul 2024	8	14.36	80.03	7.7	33.51	8.1	25.0	5.01
I39	23 Jul 2024	9	13.56	78.85	6.6	33.58	8.0	25.2	5.34
I39	23 Jul 2024	10	12.87	79.47	5.9	33.56	7.9	25.3	4.27
I39	23 Jul 2024	11	12.62	83.26	5.9	33.52	7.9	25.3	3.62
I39	23 Jul 2024	12	12.42	86.82	6.1	33.50	8.0	25.3	3.21
I39	23 Jul 2024	13	12.50	90.30	6.1	33.50	8.0	25.3	3.06
I39	23 Jul 2024	14	12.36	91.33	5.9	33.51	8.0	25.4	2.72
I39	23 Jul 2024	15	12.43	91.28	5.4	33.57	7.9	25.4	2.46
I39	23 Jul 2024	16	12.25	89.35	4.9	33.59	7.9	25.4	1.74
I39	23 Jul 2024	17	12.18	88.05	4.8	33.61	7.9	25.5	1.38
I39	23 Jul 2024	18	12.11	87.18	4.5	33.62	7.8	25.5	1.07
I39	31 Jul 2024	1	18.34	73.30	8.9	33.53	8.2	24.1	1.34
I39	31 Jul 2024	2	18.33	73.32	8.9	33.53	8.2	24.1	1.37
I39	31 Jul 2024	3	18.31	73.48	8.9	33.53	8.2	24.1	1.51
I39	31 Jul 2024	4	18.24	73.54	8.9	33.53	8.2	24.1	1.70
I39	31 Jul 2024	5	18.04	73.38	9.0	33.53	8.2	24.1	2.04
I39	31 Jul 2024	6	17.74	72.26	9.2	33.53	8.2	24.2	2.59
I39	31 Jul 2024	7	17.21	70.92	9.4	33.52	8.2	24.3	3.59
I39	31 Jul 2024	8	16.36	69.46	9.9	33.52	8.2	24.5	4.99
I39	31 Jul 2024	9	15.87	67.60	10.1	33.50	8.2	24.6	7.38
I39	31 Jul 2024	10	15.94	66.22	9.6	33.48	8.2	24.6	9.22
I39	31 Jul 2024	11	14.26	64.52	8.9	33.53	8.2	25.0	13.12

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I39	31 Jul 2024	12	13.01	63.79	7.9	33.50	8.1	25.2	11.41
I39	31 Jul 2024	13	12.96	79.78	7.2	33.48	8.0	25.2	7.41
I39	31 Jul 2024	14	12.83	82.39	6.7	33.48	8.0	25.3	5.93
I39	31 Jul 2024	15	12.53	83.64	6.1	33.49	7.9	25.3	5.33
I39	31 Jul 2024	16	12.41	84.73	5.7	33.49	7.9	25.3	4.46
I39	31 Jul 2024	17	12.34	85.38	5.4	33.49	7.8	25.4	3.77
I39	31 Jul 2024	18	12.29	86.43	5.3	33.50	7.8	25.4	2.97
I26	01 Jul 2024	1	20.50	78.35	9.4	33.51	8.3	23.5	1.32
I26	01 Jul 2024	2	20.26	78.17	9.5	33.54	8.3	23.6	1.57
I26	01 Jul 2024	3	18.57	79.06	10.1	33.53	8.3	24.0	2.15
I26	01 Jul 2024	4	16.91	84.54	10.1	33.58	8.3	24.4	2.01
I26	01 Jul 2024	5	15.25	89.70	10.4	33.47	8.2	24.7	1.54
I26	01 Jul 2024	6	13.71	87.41	8.9	33.55	8.2	25.1	4.60
I26	01 Jul 2024	7	13.33	75.53	5.6	33.61	7.9	25.3	10.08
I26	01 Jul 2024	8	13.25	82.98	4.4	33.62	7.8	25.3	6.96
I26	01 Jul 2024	9	13.21	88.36	4.0	33.62	7.7	25.3	3.25
I26	08 Jul 2024	1	19.09	59.22	10.1	33.57	8.4	23.9	7.81
I26	08 Jul 2024	2	19.15	59.78	10.1	33.57	8.4	23.9	8.51
I26	08 Jul 2024	3	19.18	60.03	10.1	33.56	8.4	23.9	9.38
I26	08 Jul 2024	4	19.03	60.09	9.9	33.59	8.4	23.9	9.60
I26	08 Jul 2024	5	18.40	61.34	9.8	33.62	8.4	24.1	7.32
I26	08 Jul 2024	6	17.64	71.49	9.3	33.62	8.3	24.3	4.88
I26	08 Jul 2024	7	17.12	77.67	8.9	33.59	8.3	24.4	3.82
I26	08 Jul 2024	8	16.81	78.89	8.8	33.61	8.2	24.5	2.95
I26	08 Jul 2024	9	16.43	78.93	8.5	33.62	8.2	24.6	2.49
I26	16 Jul 2024	1	19.48	57.19	10.7	33.62	8.4	23.8	4.23
I26	16 Jul 2024	2	18.84	56.12	10.4	33.65	8.4	24.0	9.90
I26	16 Jul 2024	3	18.35	47.69	9.7	33.64	8.4	24.1	18.31
I26	16 Jul 2024	4	17.33	45.97	9.0	33.67	8.3	24.4	19.46
I26	16 Jul 2024	5	15.85	58.97	8.1	33.69	8.2	24.8	12.70
I26	16 Jul 2024	6	15.32	74.32	7.2	33.65	8.1	24.9	5.25
I26	16 Jul 2024	7	14.83	84.06	6.7	33.66	8.1	25.0	2.65
I26	16 Jul 2024	8	14.71	83.75	6.4	33.63	8.0	25.0	1.57
I26	16 Jul 2024	9	14.72	81.36	6.4	33.64	8.0	25.0	1.16
I26	23 Jul 2024	1	19.18	72.21	9.1	33.54	8.3	23.9	1.01
I26	23 Jul 2024	2	18.96	72.14	9.1	33.53	8.3	23.9	1.09
I26	23 Jul 2024	3	18.57	72.39	9.1	33.54	8.3	24.0	1.35
I26	23 Jul 2024	4	18.14	72.47	9.1	33.53	8.3	24.1	1.75
I26	23 Jul 2024	5	17.48	71.31	9.1	33.55	8.3	24.3	2.72
I26	23 Jul 2024	6	16.99	67.12	9.1	33.53	8.3	24.4	4.12
I26	23 Jul 2024	7	16.58	63.87	8.8	33.53	8.2	24.5	5.00
I26	23 Jul 2024	8	15.81	64.71	7.7	33.56	8.2	24.7	5.80
I26	23 Jul 2024	9	14.61	65.98	6.5	33.59	8.1	25.0	5.82
I26	31 Jul 2024	1	17.83	52.83	9.4	33.31	8.2	24.0	4.66
I26	31 Jul 2024	2	15.77	52.65	9.8	33.54	8.2	24.7	9.17
I26	31 Jul 2024	3	14.64	48.99	9.9	33.48	8.2	24.9	14.73
I26	31 Jul 2024	4	14.24	52.45	9.8	33.48	8.2	25.0	18.67
I26	31 Jul 2024	5	14.02	57.05	9.1	33.47	8.2	25.0	16.60
I26	31 Jul 2024	6	13.68	62.58	8.2	33.48	8.1	25.1	12.07
I26	31 Jul 2024	7	13.56	73.92	7.3	33.48	8.0	25.1	6.44
I26	31 Jul 2024	8	13.36	81.89	6.6	33.48	7.9	25.1	3.54
I26	31 Jul 2024	9	13.18	81.68	6.2	33.48	7.9	25.2	2.62
I32	01 Jul 2024	1	20.47	60.36	10.2	33.48	8.4	23.5	3.50
I32	01 Jul 2024	2	20.31	60.14	10.0	33.52	8.4	23.6	3.83
I32	01 Jul 2024	3	19.48	60.90	9.7	33.59	8.4	23.8	6.92

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I32	01 Jul 2024	4	17.47	56.38	8.0	33.58	8.3	24.3	13.40
I32	01 Jul 2024	5	16.09	60.86	5.5	33.60	8.1	24.7	11.71
I32	01 Jul 2024	6	14.99	69.76	4.0	33.61	7.8	24.9	6.61
I32	01 Jul 2024	7	14.12	76.72	3.4	33.60	7.7	25.1	3.80
I32	01 Jul 2024	8	13.42	80.94	3.3	33.60	7.7	25.2	2.26
I32	01 Jul 2024	9	13.05	80.81	3.3	33.62	7.7	25.3	1.39
I32	01 Jul 2024	10	13.03	75.89	3.3	33.60	7.7	25.3	1.08
I32	08 Jul 2024	1	19.81	56.66	9.1	33.47	8.3	23.6	4.09
I32	08 Jul 2024	2	19.52	56.61	8.9	33.48	8.3	23.7	4.43
I32	08 Jul 2024	3	18.68	57.58	9.1	33.55	8.3	24.0	4.82
I32	08 Jul 2024	4	18.39	61.47	9.7	33.58	8.3	24.1	6.00
I32	08 Jul 2024	5	18.21	68.48	9.8	33.59	8.3	24.1	8.83
I32	08 Jul 2024	6	18.12	69.67	9.8	33.59	8.3	24.2	8.76
I32	08 Jul 2024	7	17.91	72.03	9.5	33.59	8.3	24.2	6.41
I32	08 Jul 2024	8	17.68	74.88	8.9	33.56	8.3	24.2	4.62
I32	08 Jul 2024	9	17.24	75.06	8.2	33.59	8.2	24.4	3.78
I32	08 Jul 2024	10	16.48	72.01	7.6	33.61	8.2	24.6	3.44
I32	16 Jul 2024	1	19.08	53.90	10.1	33.64	8.4	24.0	5.65
I32	16 Jul 2024	2	18.79	51.88	9.4	33.64	8.4	24.0	8.10
I32	16 Jul 2024	3	17.87	49.59	8.5	33.67	8.3	24.3	10.64
I32	16 Jul 2024	4	16.52	49.28	7.8	33.68	8.2	24.6	9.66
I32	16 Jul 2024	5	15.61	63.36	7.0	33.66	8.1	24.8	5.71
I32	16 Jul 2024	6	15.12	79.34	6.7	33.65	8.1	24.9	2.81
I32	16 Jul 2024	7	14.94	74.13	6.4	33.64	8.1	24.9	1.86
I32	16 Jul 2024	8	14.82	70.55	6.0	33.65	8.0	25.0	1.45
I32	16 Jul 2024	9	14.72	72.95	5.6	33.65	8.0	25.0	1.26
I32	16 Jul 2024	10	14.56	72.56	5.3	33.66	8.0	25.0	1.20
I32	23 Jul 2024	1	19.52	38.40	8.6	33.16	8.2	23.5	5.80
I32	23 Jul 2024	2	19.70	37.92	8.9	33.40	8.3	23.6	5.92
I32	23 Jul 2024	3	19.69	53.93	9.1	33.52	8.3	23.7	6.34
I32	23 Jul 2024	4	19.45	59.72	9.0	33.50	8.3	23.8	7.96
I32	23 Jul 2024	5	19.27	59.14	8.6	33.50	8.3	23.8	9.51
I32	23 Jul 2024	6	18.71	58.01	8.1	33.50	8.2	23.9	10.20
I32	23 Jul 2024	7	18.17	58.59	7.7	33.53	8.2	24.1	10.30
I32	23 Jul 2024	8	17.73	59.41	7.3	33.53	8.2	24.2	9.55
I32	23 Jul 2024	9	17.02	60.22	7.1	33.52	8.1	24.4	8.23
I32	23 Jul 2024	10	16.87	61.17	7.0	33.50	8.1	24.4	7.15
I32	31 Jul 2024	1	17.64	52.93	8.4	33.19	8.1	24.0	2.77
I32	31 Jul 2024	2	17.59	51.28	8.3	33.19	8.1	24.0	3.26
I32	31 Jul 2024	3	17.40	52.24	8.1	33.20	8.1	24.0	4.40
I32	31 Jul 2024	4	15.99	51.17	8.2	33.35	8.1	24.5	7.65
I32	31 Jul 2024	5	14.56	52.17	7.9	33.45	8.1	24.9	12.91
I32	31 Jul 2024	6	14.09	56.97	7.2	33.47	8.0	25.0	15.17
I32	31 Jul 2024	7	13.63	63.88	6.5	33.48	7.9	25.1	10.91
I32	31 Jul 2024	8	13.57	69.36	6.1	33.48	7.9	25.1	7.49
I32	31 Jul 2024	9	13.40	70.84	5.8	33.49	7.9	25.1	5.90
I32	31 Jul 2024	10	13.15	68.74	5.6	33.49	7.9	25.2	4.81

NA = not available

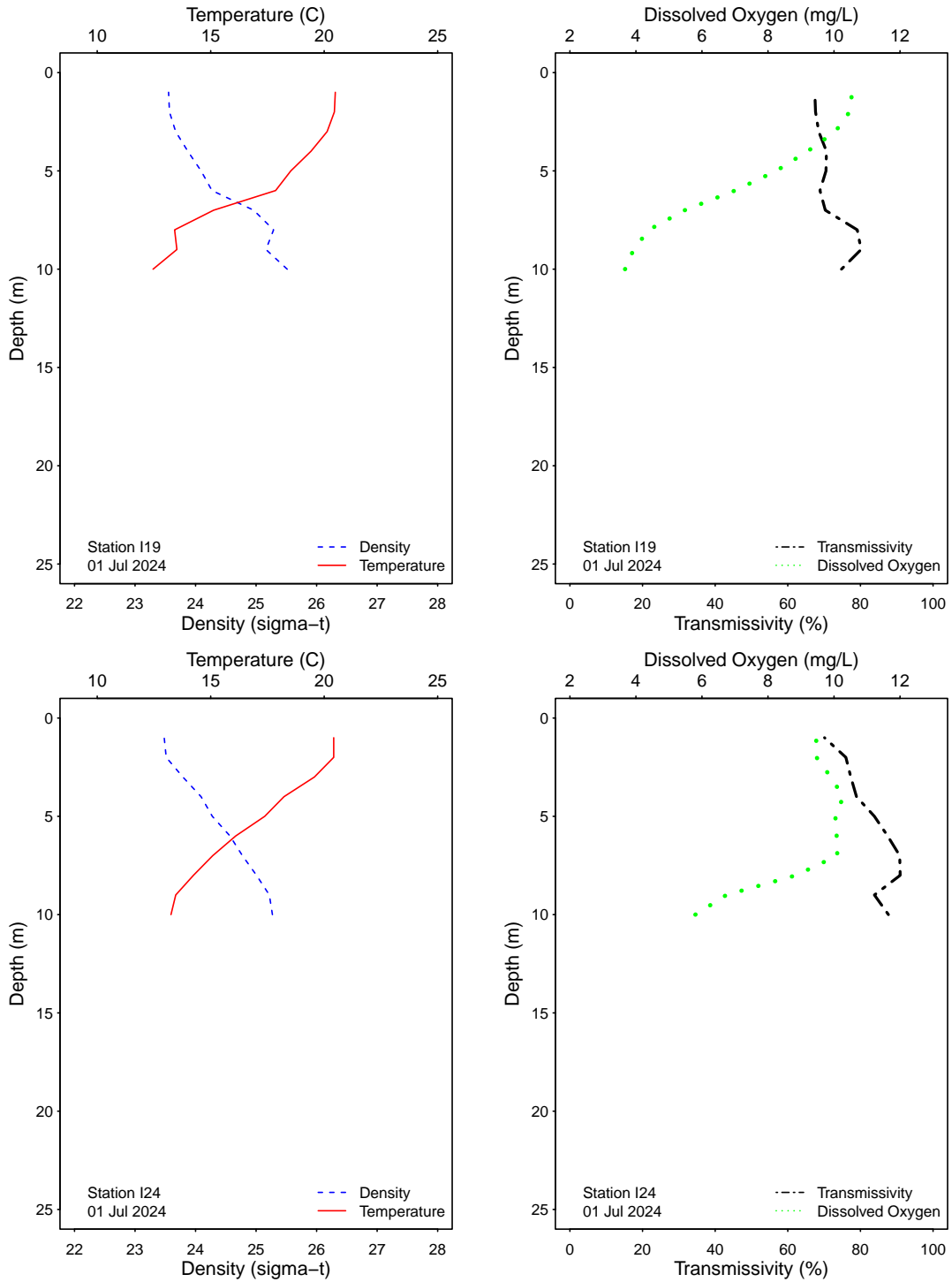


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

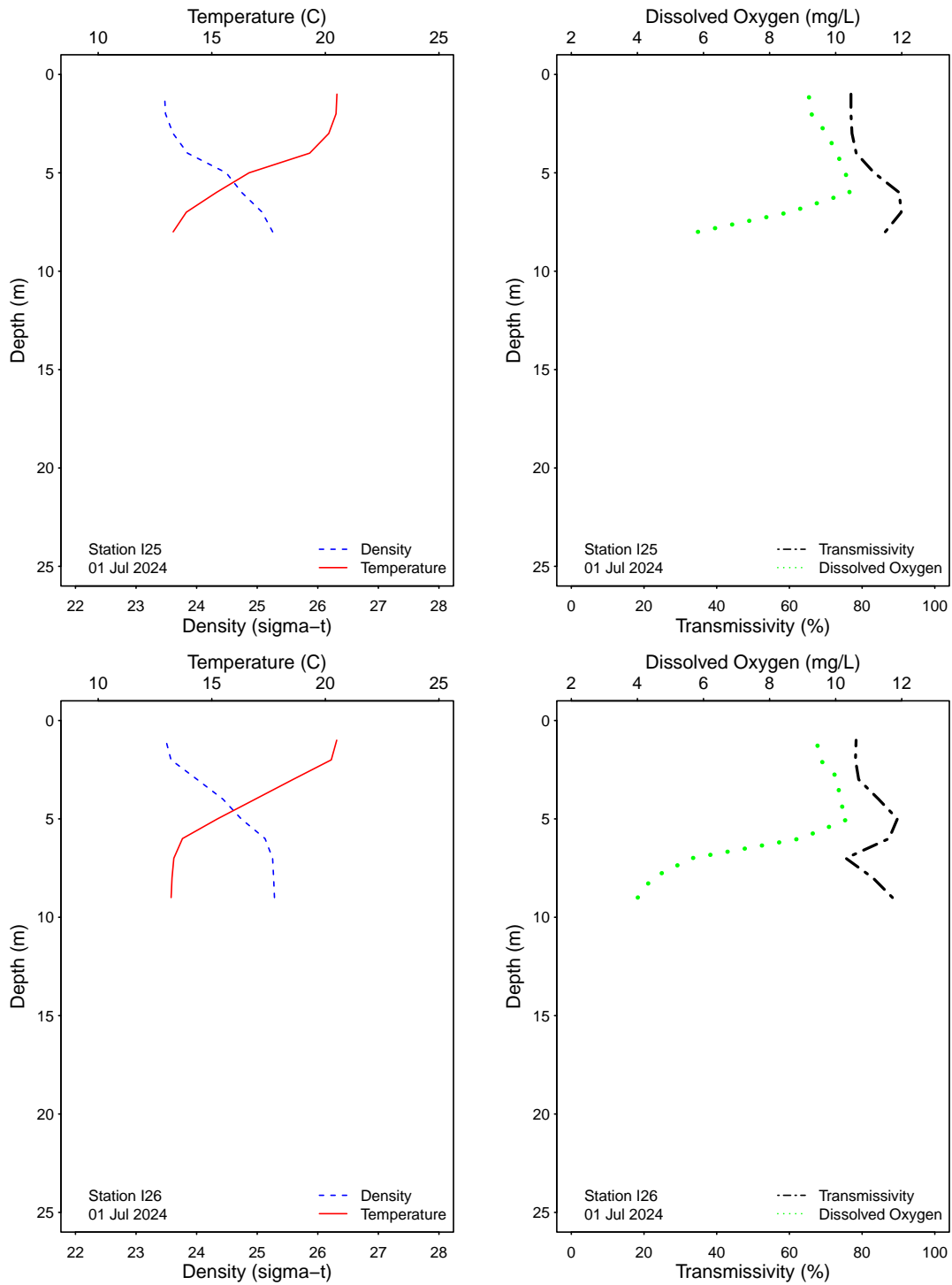


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

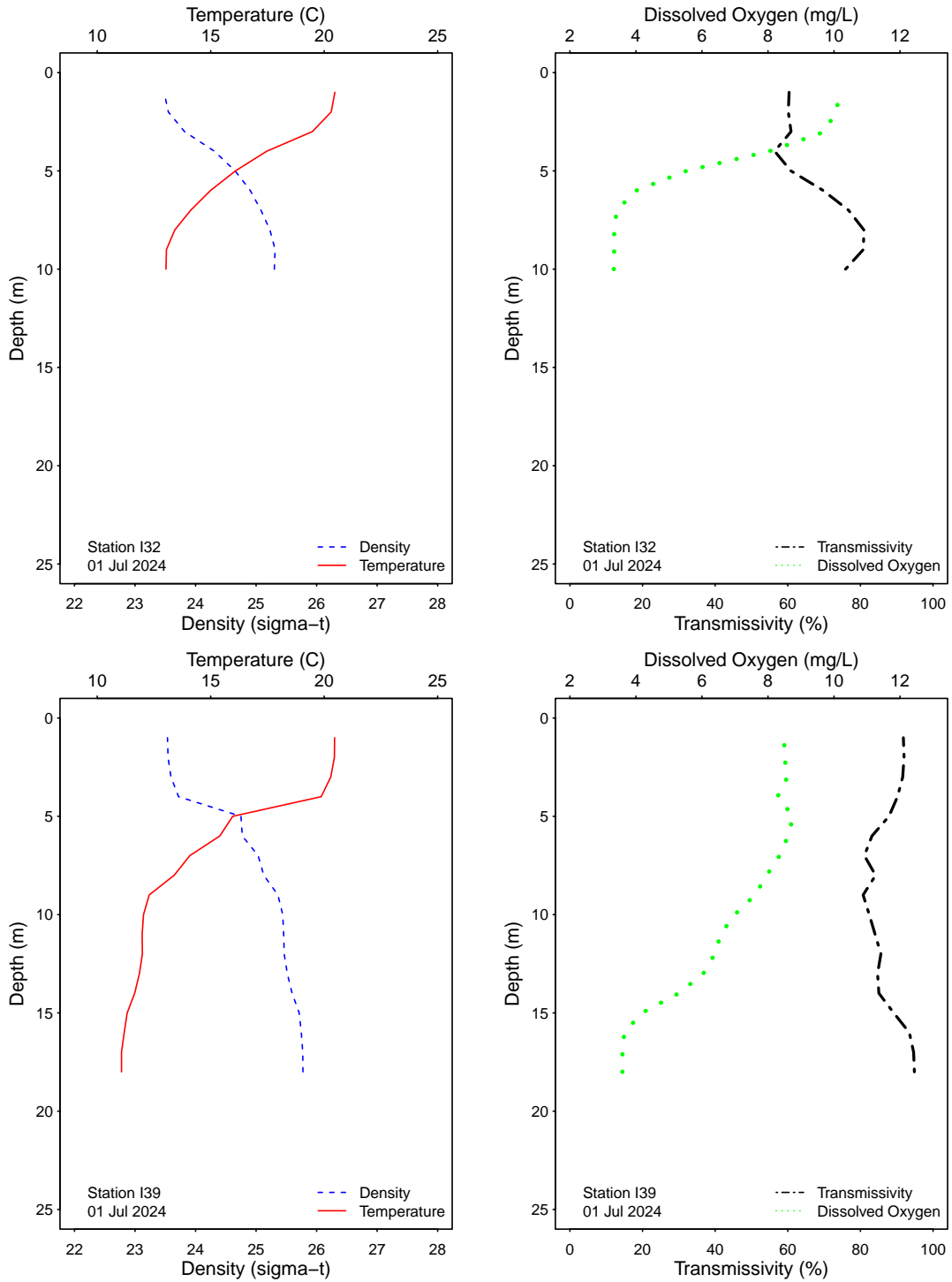


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

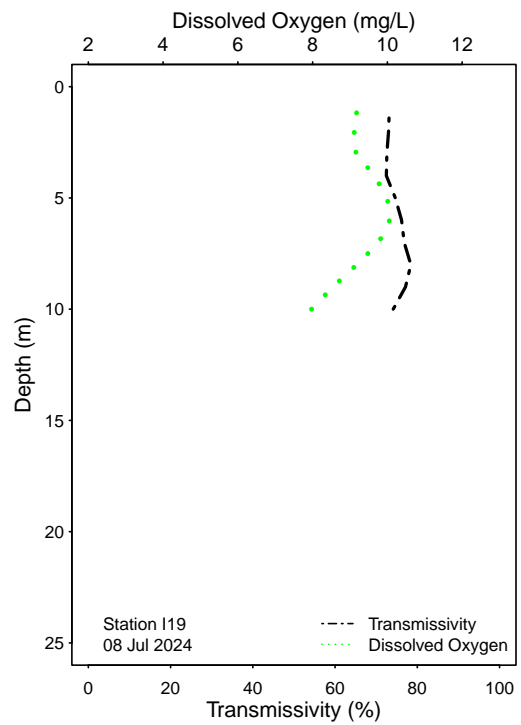
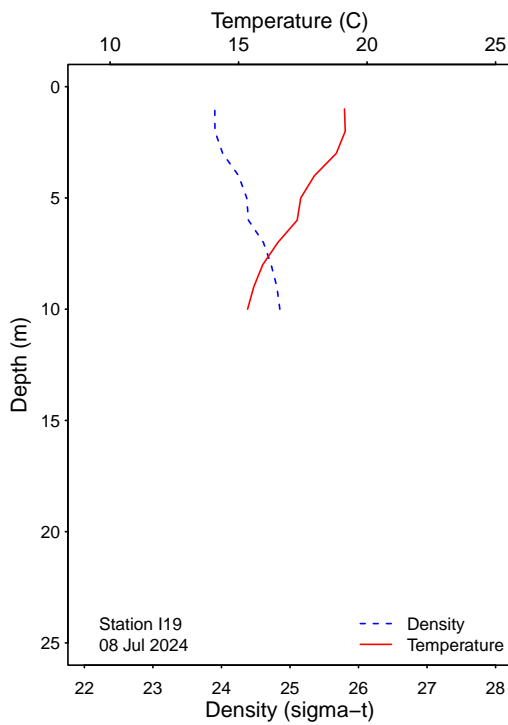
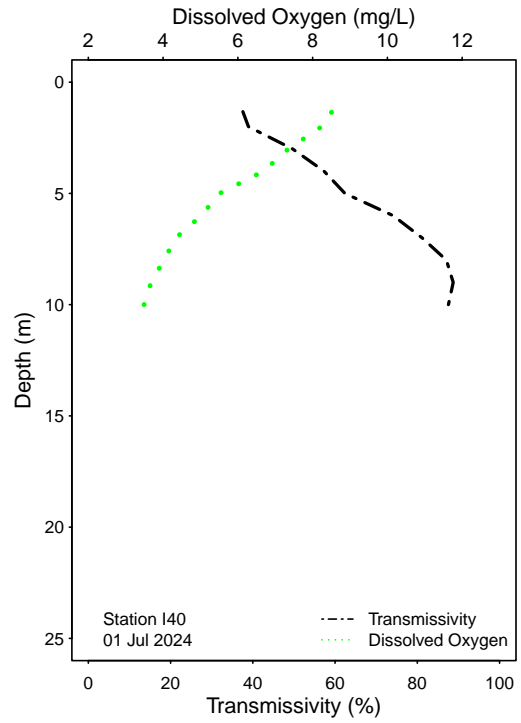
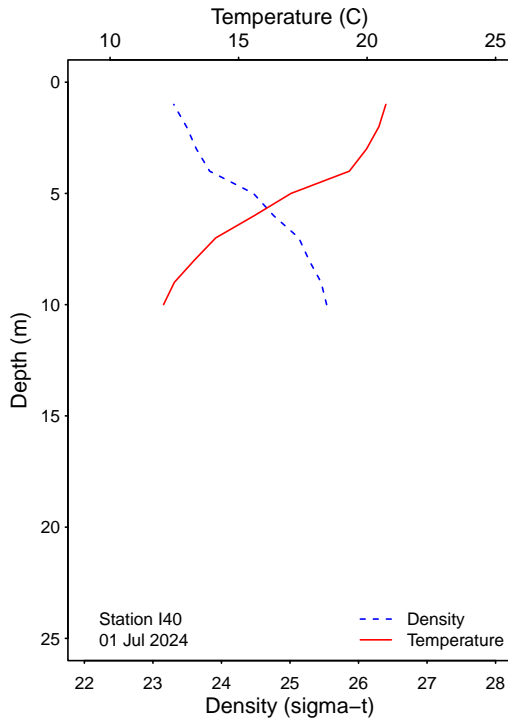


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

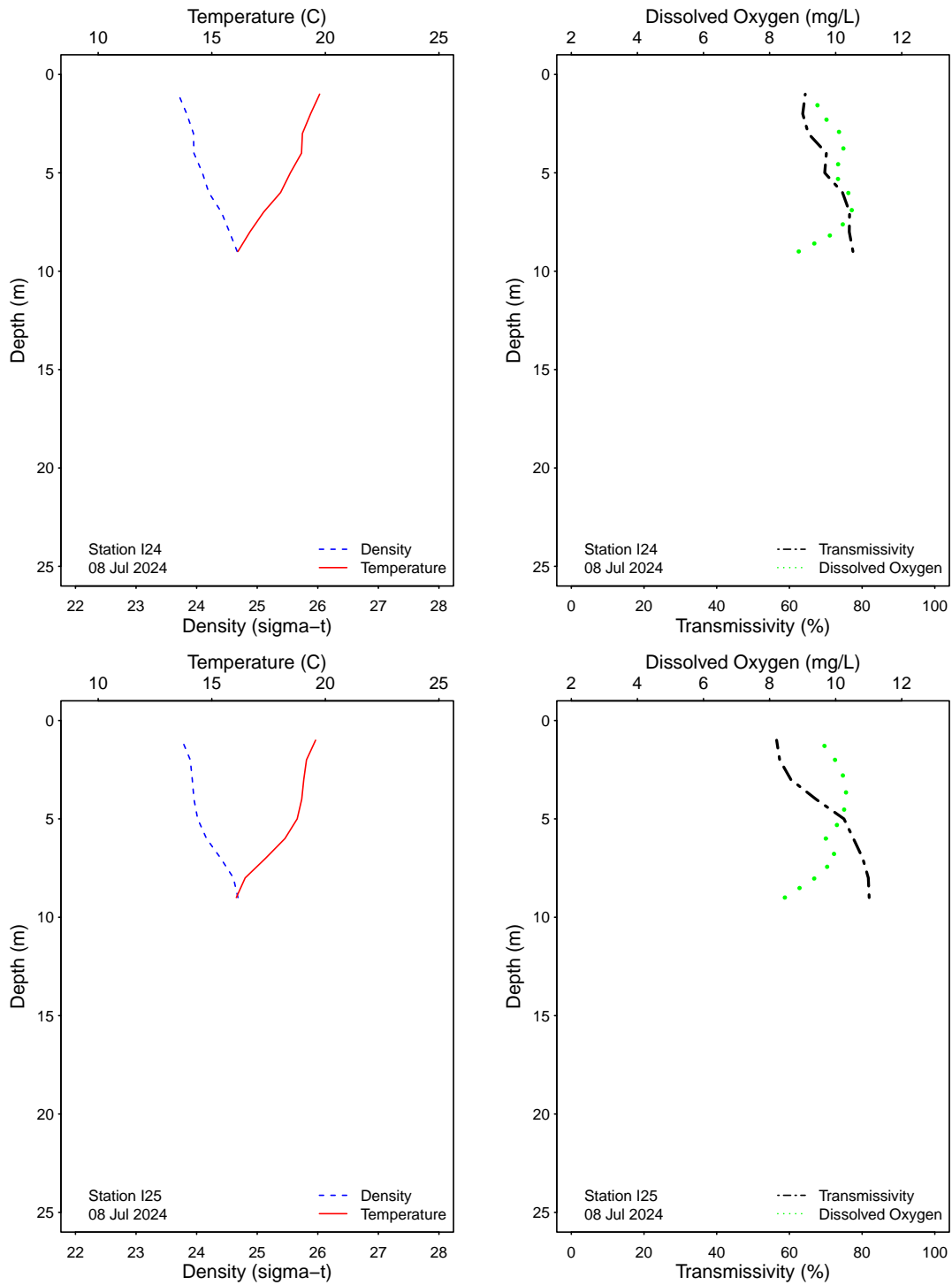


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

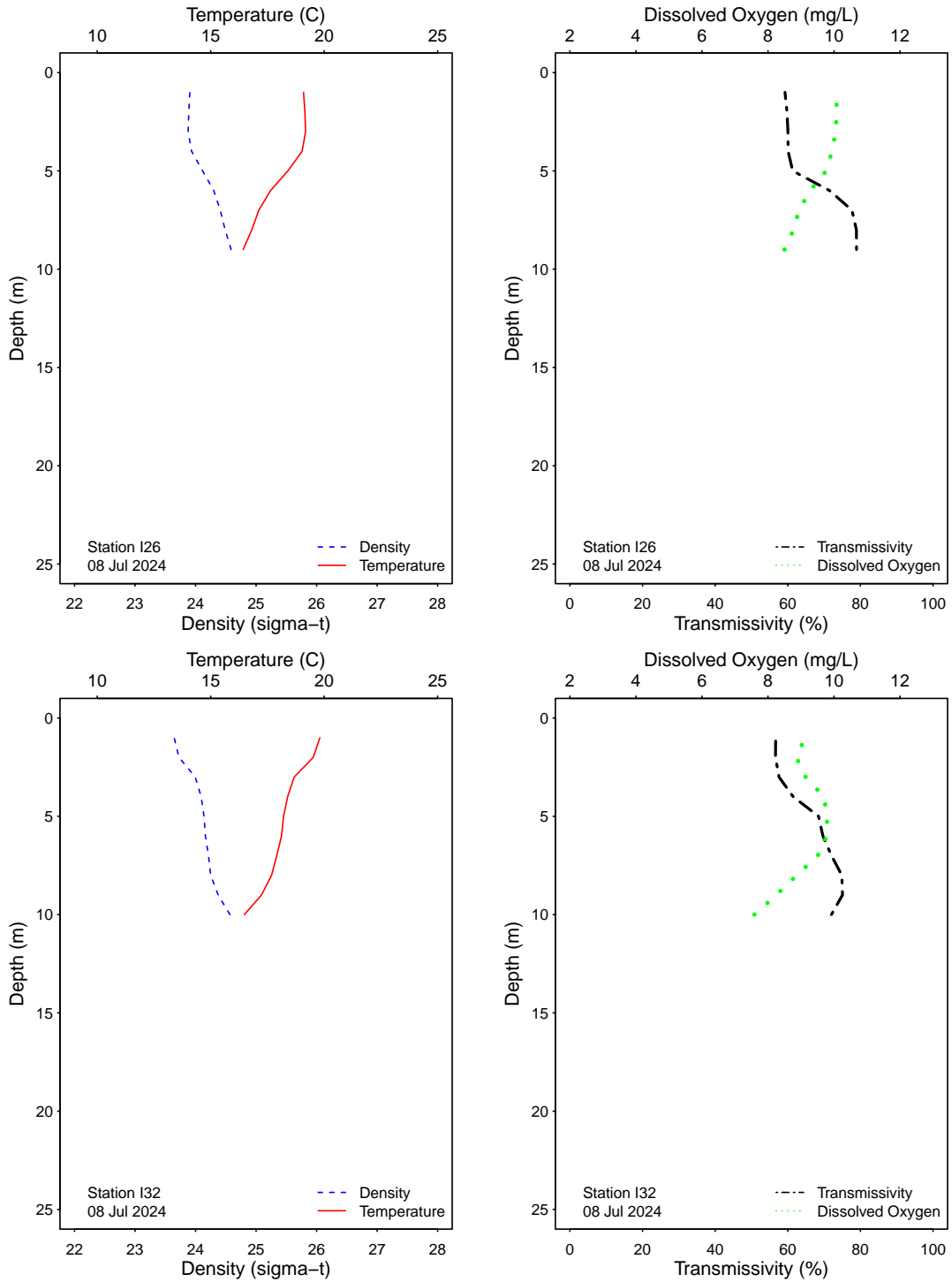


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

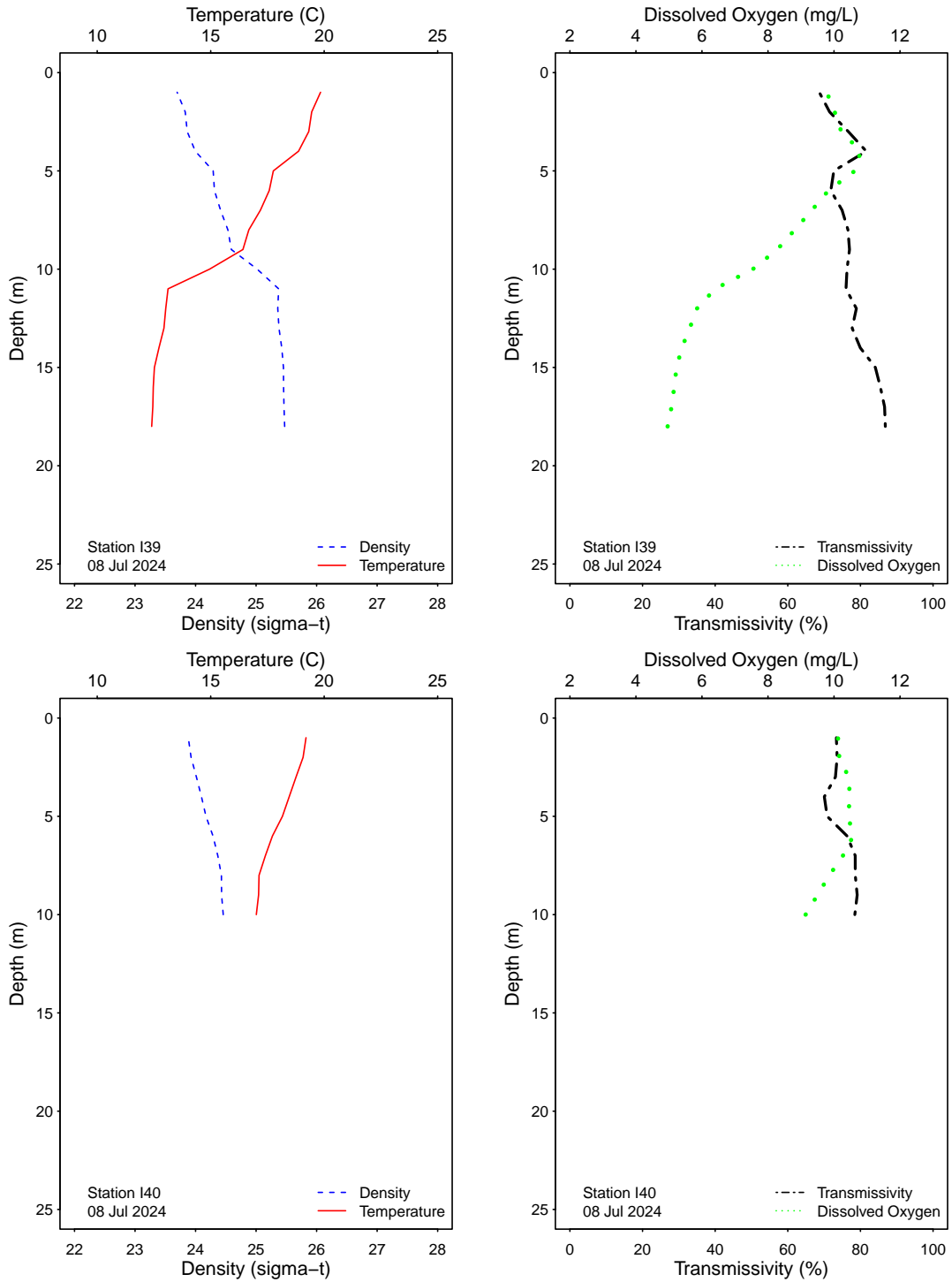


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

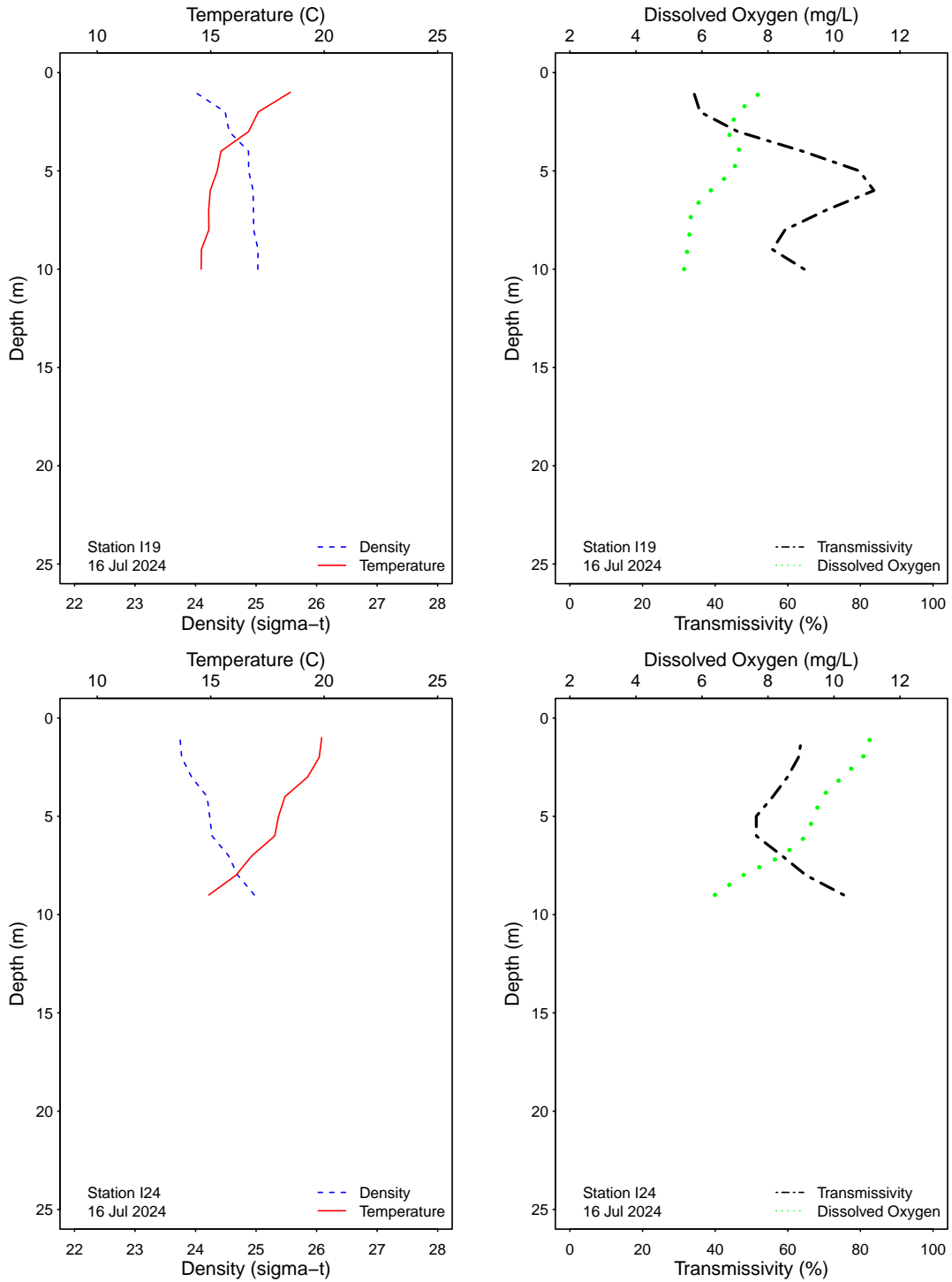


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

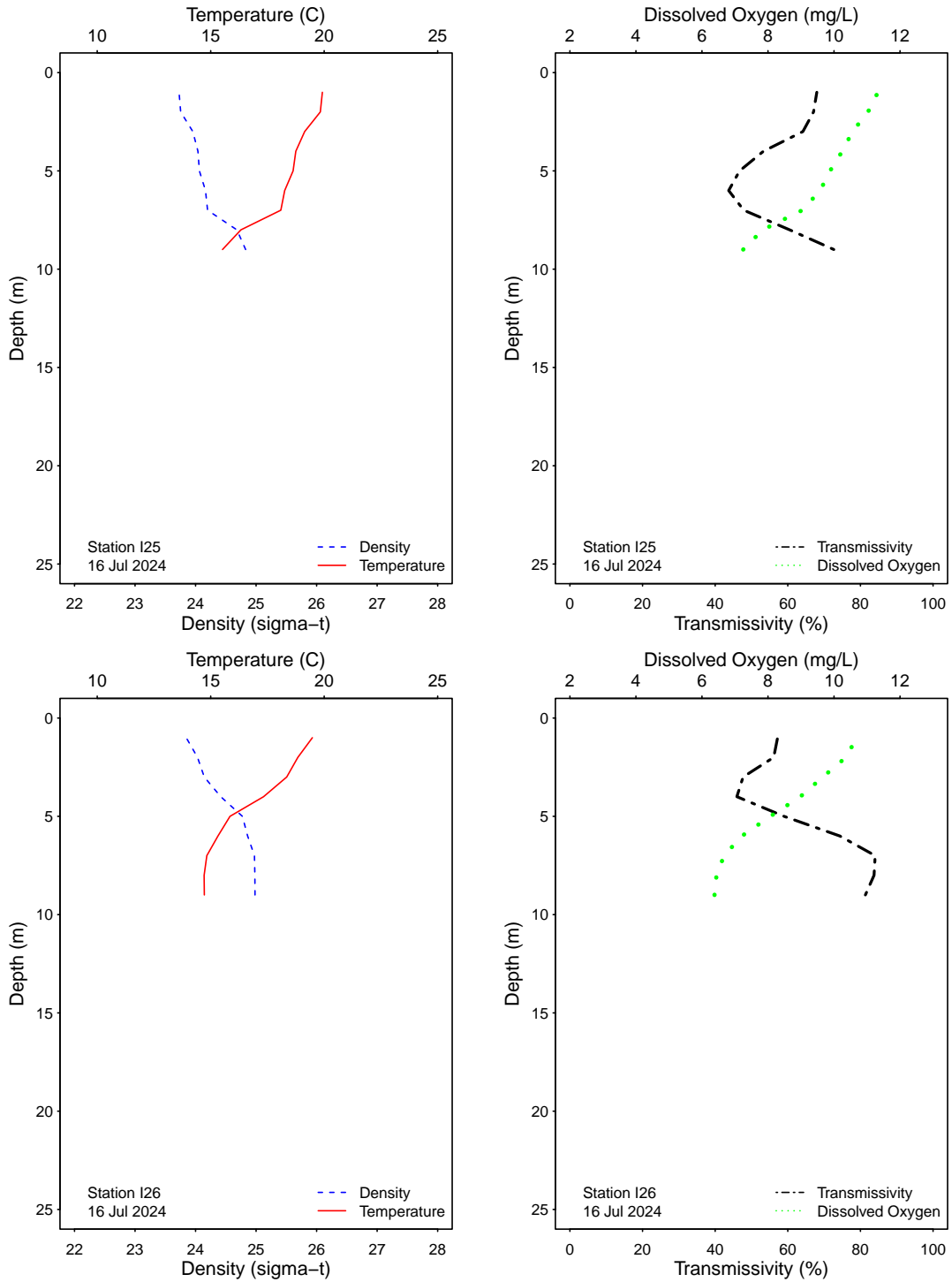


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

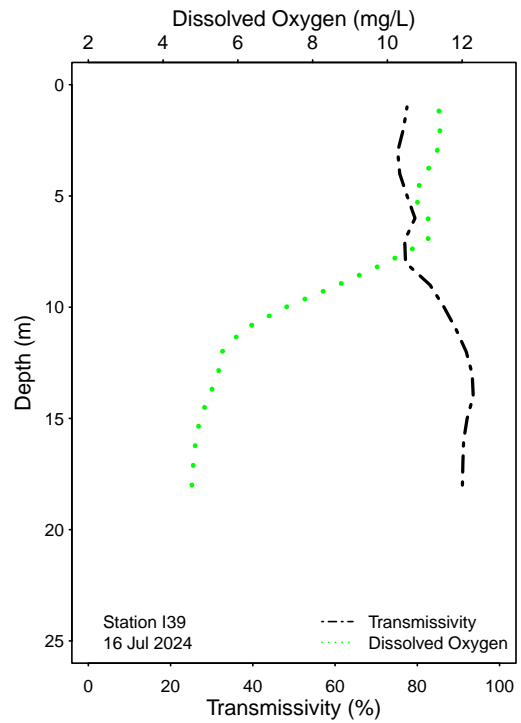
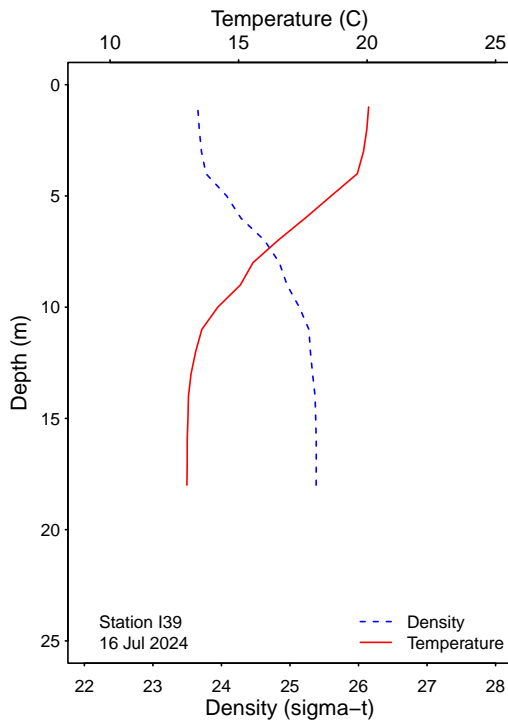
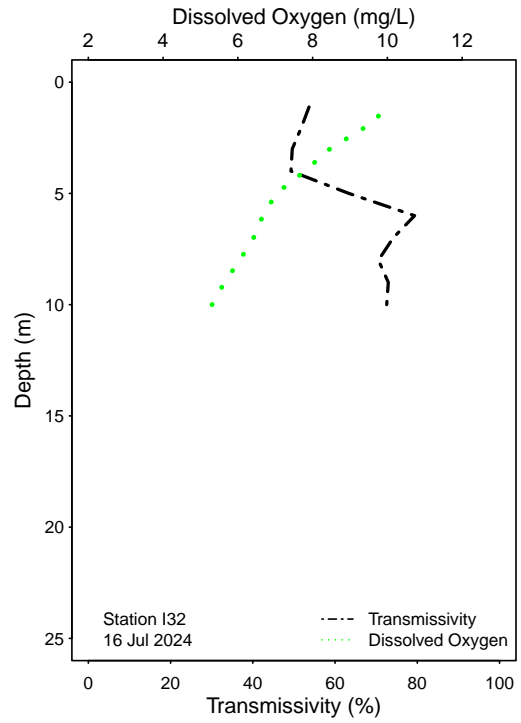
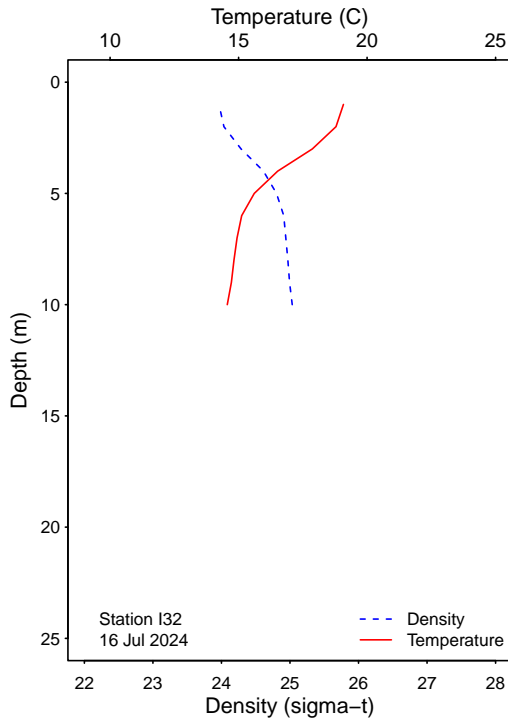


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

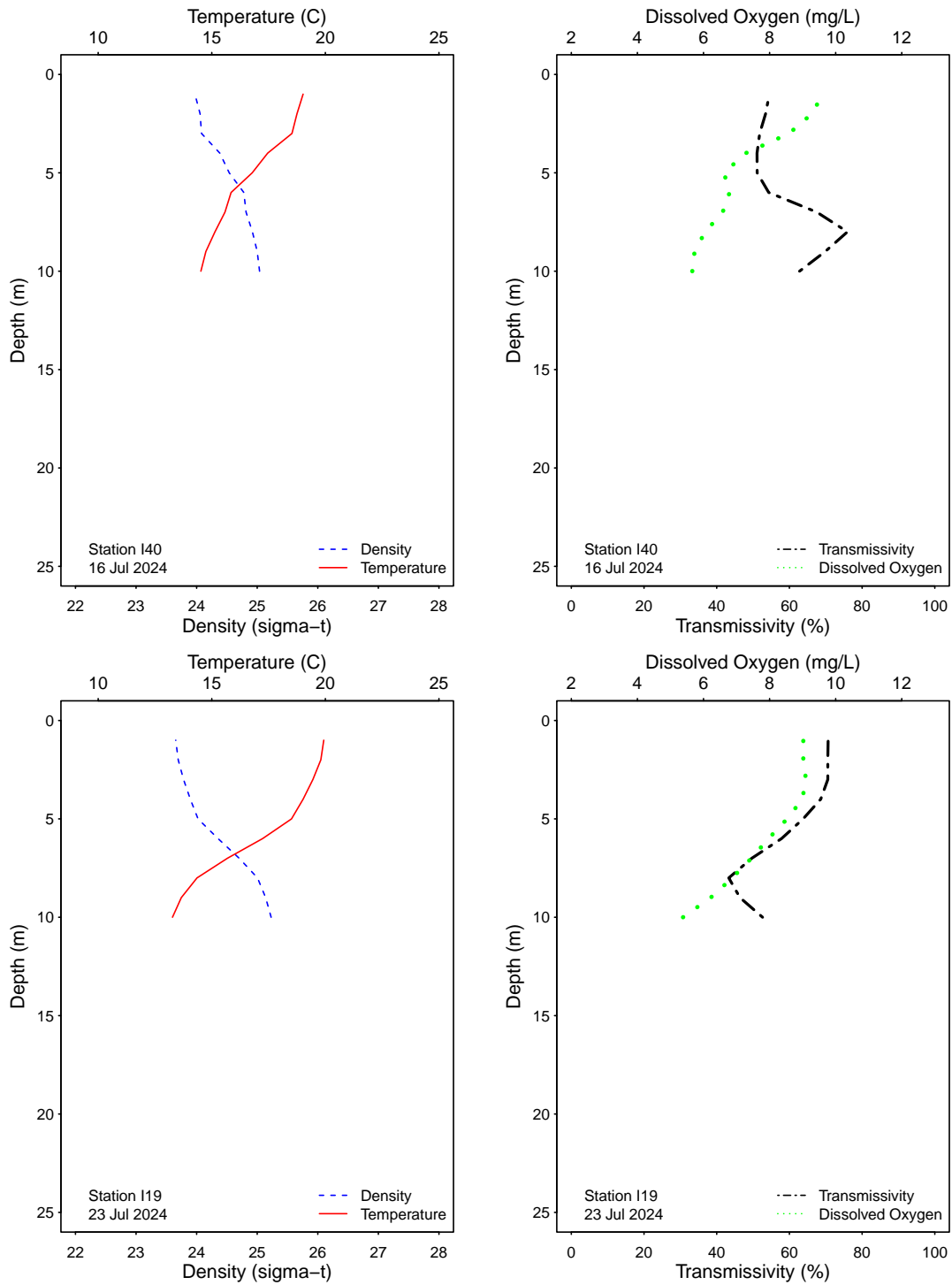


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

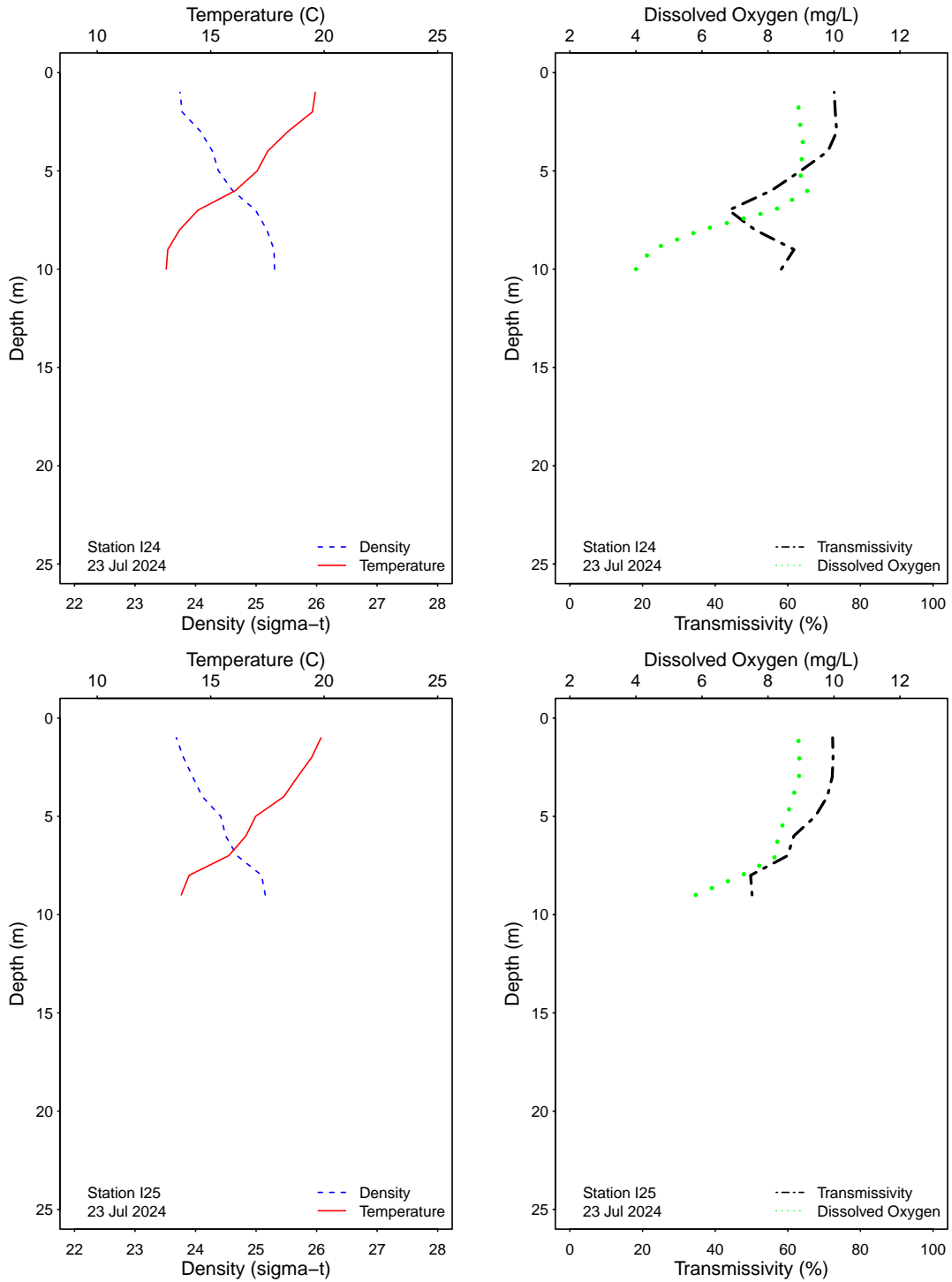


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

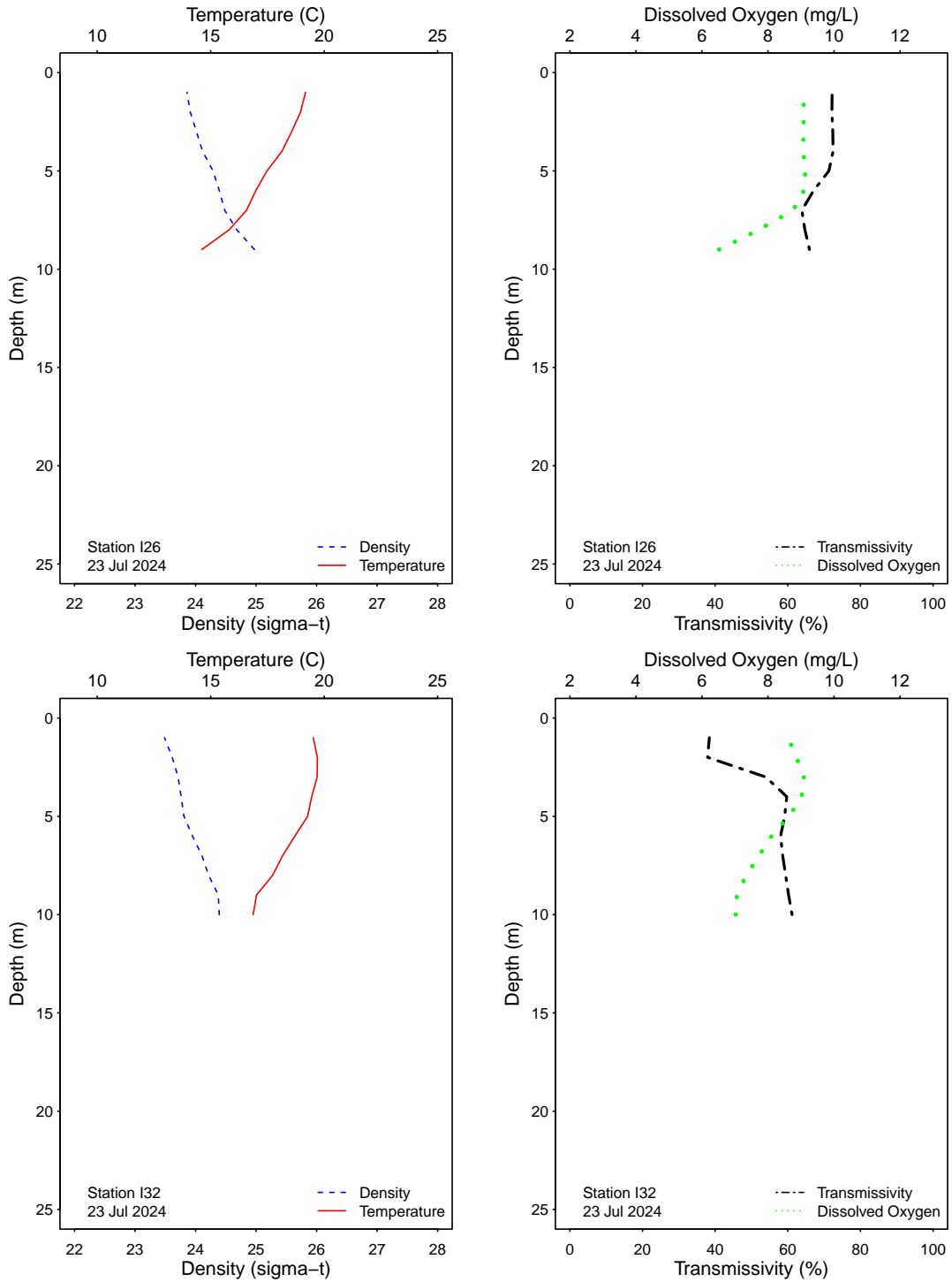


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

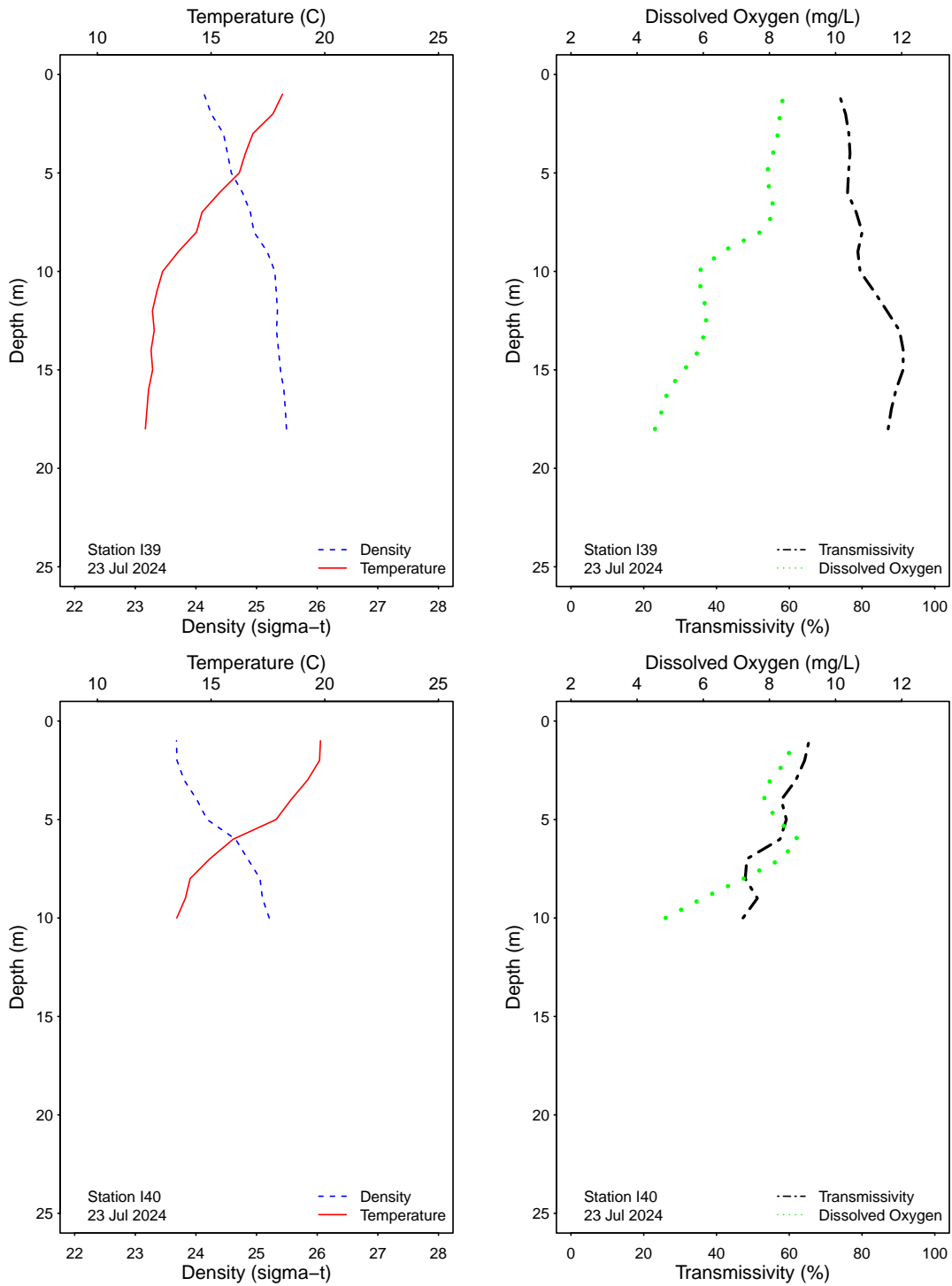


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

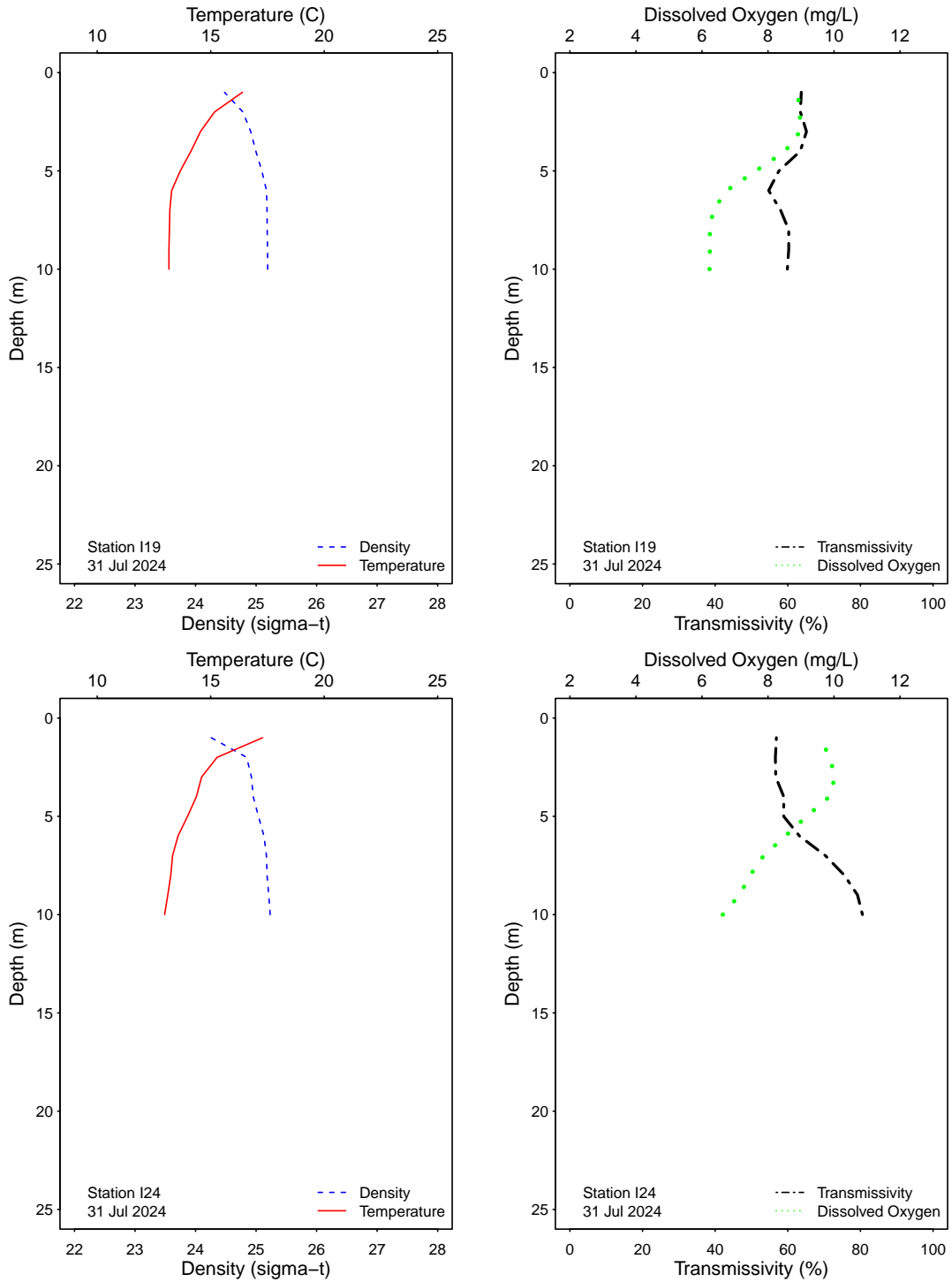


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

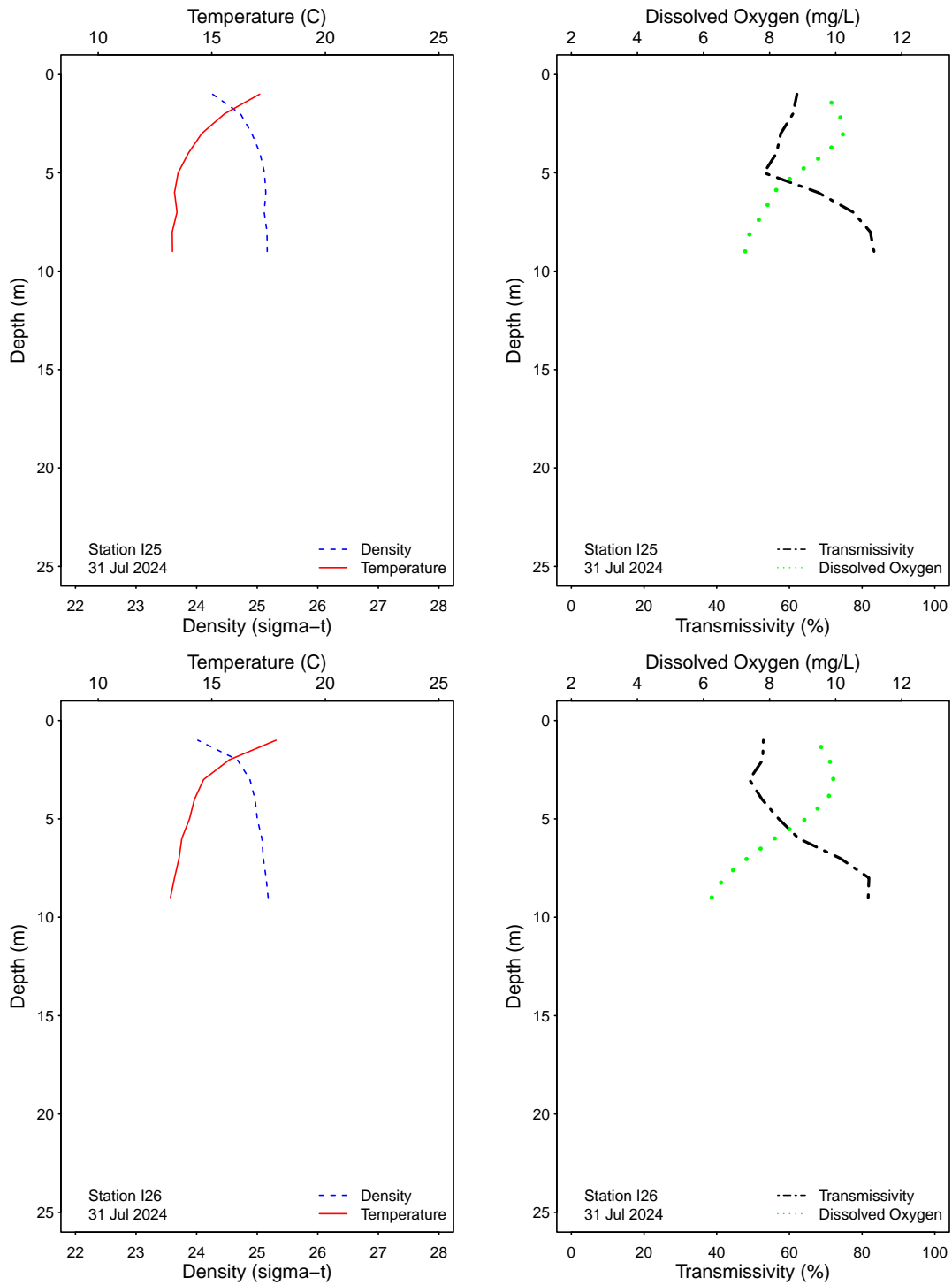


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

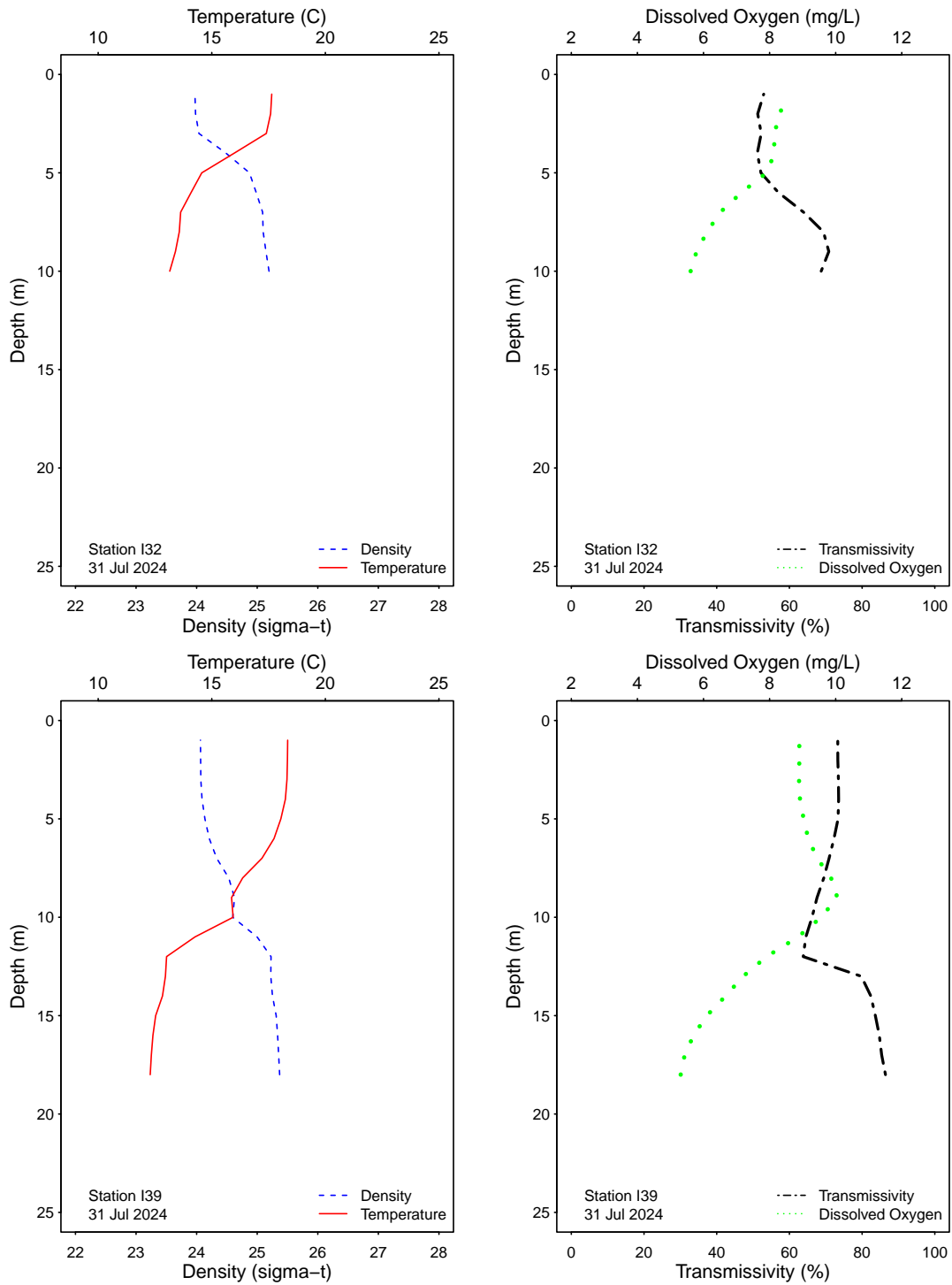


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

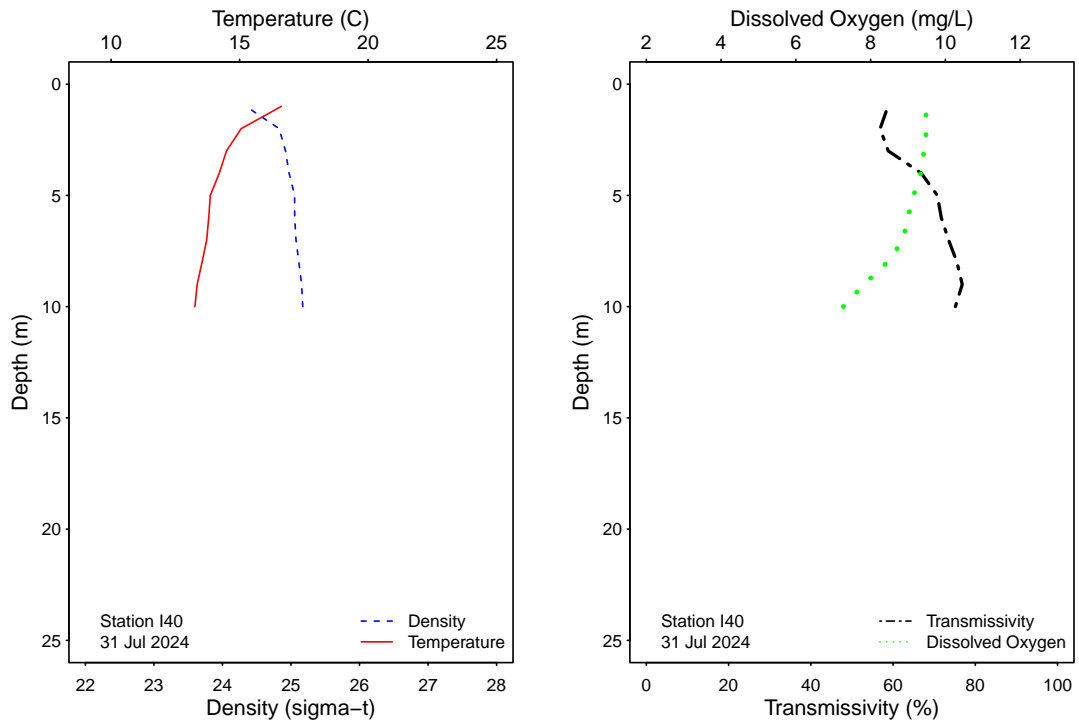


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

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APPENDIX A

Quality Assurance

Table A.1

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

Station	Date	Depth	Analyst	Procedure	Total	Fecal	Entero
I19	01 Jul 2024	6	BS	LAB DUPLICATE	240	48	24
I19	08 Jul 2024	6	KT	LAB DUPLICATE	20	2	2
I19	16 Jul 2024	6	KT	LAB DUPLICATE	40	2	12
I19	23 Jul 2024	6	KT	LAB DUPLICATE	280	82	24
I19	31 Jul 2024	6	KT	LAB DUPLICATE	40	4	2
I40	01 Jul 2024	6	BS	LAB DUPLICATE	6800	1400	420
I40	08 Jul 2024	6	KT	LAB DUPLICATE	200	8	4
I40	16 Jul 2024	6	KT	LAB DUPLICATE	400	58	30
I40	23 Jul 2024	6	KT	LAB DUPLICATE	220	46	38
I40	31 Jul 2024	6	KT	LAB DUPLICATE	4	2	2
S12	02 Jul 2024		KT	FIELD DUPLICATE	180	30	56
S12	02 Jul 2024		KT	LAB DUPLICATE	300	80	34
S12	09 Jul 2024		JF	LAB DUPLICATE	16000	11000	11000
S12	09 Jul 2024		JF	FIELD DUPLICATE	16000	8600	5600
S12	16 Jul 2024		KT	FIELD DUPLICATE	200	20	20
S12	16 Jul 2024		KT	LAB DUPLICATE	200	20	4
S12	23 Jul 2024		JF	FIELD DUPLICATE	16000	8600	4000
S12	23 Jul 2024		JF	LAB DUPLICATE	16000	5600	5600
S12	30 Jul 2024		KT	FIELD DUPLICATE	16000	7800	4800
S12	30 Jul 2024		KT	LAB DUPLICATE	16000	10000	4000

ns = not sampled

ND = no data

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