

SOUTH BAY OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT

SOUTH BAY WATER RECLAMATION PLANT

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

APRIL 2024

Environmental Monitoring and Technical Services
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May 31, 2024

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

Attention: POTW Compliance Unit

Dear Mr. Gibson:

Enclosed is the April 2024 Monthly Receiving Waters Monitoring Report for the 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 chromomorphous 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 April, six of the eight shore stations located north of the border were 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, S10, and S11.
 - 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, S10, S11, and S12.
 - The STV standard for total coliforms was exceeded at stations S4, S5, S6, S10, S11, and S12
- A sewage-like odor was observed at station S5 on one or more days in April.
- 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 April 2, 9, 16 and 23.
- During April, each of the seven kelp bed stations was 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 stations I19, I24, I25, and I40.
 - The SSM standard for fecal coliforms was exceeded at stations I19, I24, I25, I26, and I40.
 - The 6-week running geometric mean standard for *Enterococcus* was exceeded at stations I19, I24, I25, and I40.
 - The STV standard for *Enterococcus* was exceeded at stations I19, I24, I25, I26, and I40.
 - The 30-day running median standard for total coliforms was exceeded at stations I19, I24, I25, I26, I32, I39, and I40.
 - The STV standard for total coliforms was exceeded at stations I19, I24, I25, I26, I32, I39, and I40.
- Water column temperatures ranged from 11.63 to 16.55°C. The difference between surface and bottom waters ranged from 0.32 to 4.05°C.
- Concentrations of chlorophyll *a* ranged from 0.26 to 8.64 µg/L at the kelp bed stations.
- A sewage-like odor was observed at stations I25, and I40 on one or more days in April.

➤ **Offshore Water Quality Sampling**

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



TABLES AND FIGURES

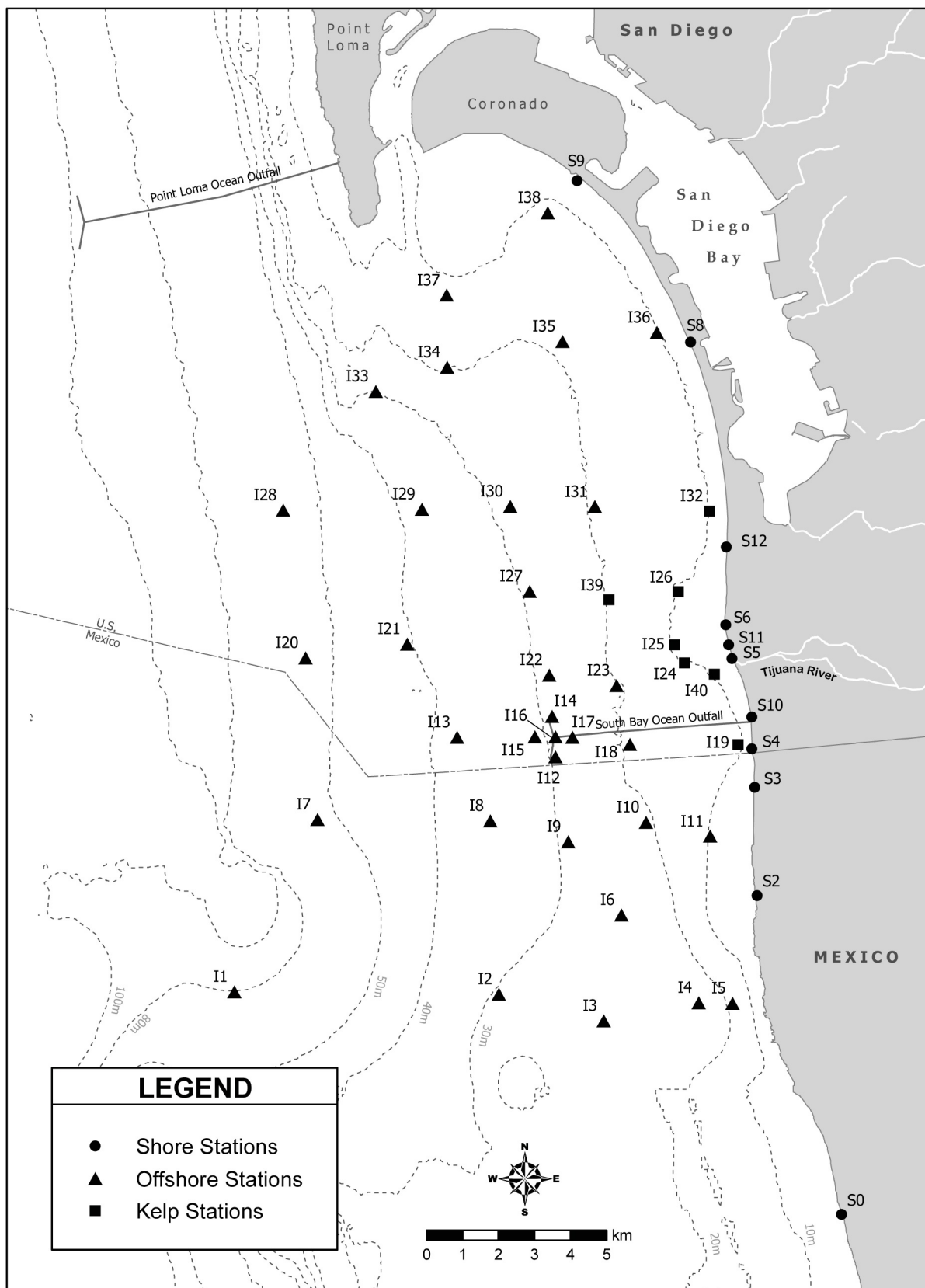


Figure 1.1 Station Map

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Shore Stations

Table 2.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for fecal coliform bacteria at the 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 Apr 2024	*2337	*4604	*15	*2	*3	*5263	*2753	*5
02 Apr 2024	1224	5576	21	4	3	2471	3696	10
03 Apr 2024	1224	5576	21	4	3	2471	3696	10
04 Apr 2024	*1463	*4604	*38	*4	*4	*1891	*2753	*14
05 Apr 2024	*1463	*4604	*38	*4	*4	*1891	*2753	*14
06 Apr 2024	*1463	*4604	*38	*4	*4	*1891	*2753	*14
07 Apr 2024	*1463	*4604	*38	*4	*4	*1891	*2753	*14
08 Apr 2024	*1463	*4604	*38	*4	*4	*1891	*2753	*14
09 Apr 2024	1344	2796	37	4	3	2736	983	15
10 Apr 2024	1344	2796	37	4	3	2736	983	15
11 Apr 2024	*878	*5062	*52	*4	*3	*1891	*1282	*26
12 Apr 2024	*878	*5062	*52	*4	*3	*1891	*1282	*26
13 Apr 2024	*878	*5062	*52	*4	*3	*1891	*1282	*26
14 Apr 2024	*878	*5062	*52	*4	*3	*1891	*1282	*26
15 Apr 2024	*878	*5062	*52	*4	*3	*1891	*1282	*26
16 Apr 2024	552	6016	34	4	3	2736	352	18
17 Apr 2024	552	6016	34	4	3	2736	352	18
18 Apr 2024	*549	*5062	*52	*4	*3	*3795	*157	*31
19 Apr 2024	*549	*5062	*52	*4	*3	*3795	*157	*31
20 Apr 2024	*549	*5062	*52	*4	*3	*3795	*157	*31
21 Apr 2024	*549	*5062	*52	*4	*3	*3795	*157	*31
22 Apr 2024	*549	*5062	*52	*4	*3	*3795	*157	*31
23 Apr 2024	223	6016	154	4	2	1157	375	101
24 Apr 2024	223	6016	154	4	2	1157	375	101
25 Apr 2024	*82	*5062	*117	*4	*3	*645	*261	*99
26 Apr 2024	*82	*5062	*117	*4	*3	*645	*261	*99
27 Apr 2024	*82	*5062	*117	*4	*3	*645	*261	*99
28 Apr 2024	*82	*5062	*117	*4	*3	*645	*261	*99
29 Apr 2024	*82	*5062	*117	*4	*3	*645	*261	*99
30 Apr 2024	*82	*5062	*117	*4	*3	*645	*261	*99

* 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 Apr 2024	IC	E	IC	IC	IC	IC	E	IC
09 Apr 2024	E	IC	IC	IC	IC	E	IC	IC
16 Apr 2024	IC	E	IC	IC	IC	E	IC	IC
23 Apr 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 Apr 2024	324	3126	44	5	3	872	795	19
02 Apr 2024	305	3126	42	2	2	769	1592	14
03 Apr 2024	305	3126	42	2	2	769	1592	14
04 Apr 2024	305	3126	42	2	2	769	1592	14
05 Apr 2024	305	3126	42	2	2	769	1592	14
06 Apr 2024	305	3126	42	2	2	769	1592	14
07 Apr 2024	305	3126	42	2	2	769	1592	14
08 Apr 2024	305	3126	42	2	2	769	1592	14
09 Apr 2024	313	2391	14	2	2	1027	507	8
10 Apr 2024	462	2391	14	2	2	1778	507	8
11 Apr 2024	462	2391	14	2	2	1778	507	8
12 Apr 2024	462	2391	14	2	2	1778	507	8
13 Apr 2024	462	2391	14	2	2	1778	507	8
14 Apr 2024	462	2391	14	2	2	1778	507	8
15 Apr 2024	462	2391	14	2	2	1778	507	8
16 Apr 2024	357	2391	10	2	2	2041	187	8
17 Apr 2024	357	2391	10	2	2	2041	187	8
18 Apr 2024	357	2391	10	2	2	2041	187	8
19 Apr 2024	357	2391	10	2	2	2041	187	8
20 Apr 2024	357	2391	10	2	2	2041	187	8
21 Apr 2024	357	2391	10	2	2	2041	187	8
22 Apr 2024	357	2391	10	2	2	2041	187	8
23 Apr 2024	166	4421	31	2	2	603	463	23
24 Apr 2024	166	4421	31	2	2	603	463	23
25 Apr 2024	166	4421	31	2	2	603	463	23
26 Apr 2024	166	4421	31	2	2	603	463	23
27 Apr 2024	166	4421	31	2	2	603	463	23
28 Apr 2024	166	4421	31	2	2	603	463	23
29 Apr 2024	166	4421	31	2	2	603	463	23
30 Apr 2024	138	3621	53	2	2	714	274	37

* 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
April	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 Apr 2024	*9400	*16000	*70	*13	*12	*16000	*13000	*31
02 Apr 2024	2800	16000	120	20	12	16000	16000	60
03 Apr 2024	2800	16000	120	20	12	16000	16000	60
04 Apr 2024	*9400	*16000	*760	*20	*16	*9000	*13000	*440
05 Apr 2024	*9400	*16000	*760	*20	*16	*9000	*13000	*440
06 Apr 2024	*9400	*16000	*760	*20	*16	*9000	*13000	*440
07 Apr 2024	*9400	*16000	*760	*20	*16	*9000	*13000	*440
08 Apr 2024	*9400	*16000	*760	*20	*16	*9000	*13000	*440
09 Apr 2024	12000	16000	680	20	12	16000	10000	380
10 Apr 2024	12000	16000	680	20	12	16000	10000	380
11 Apr 2024	*7400	*16000	*1040	*20	*8	*9000	*13000	*600
12 Apr 2024	*7400	*16000	*1040	*20	*8	*9000	*13000	*600
13 Apr 2024	*7400	*16000	*1040	*20	*8	*9000	*13000	*600
14 Apr 2024	*7400	*16000	*1040	*20	*8	*9000	*13000	*600
15 Apr 2024	*7400	*16000	*1040	*20	*8	*9000	*13000	*600
16 Apr 2024	2800	16000	680	20	4	16000	10000	380
17 Apr 2024	2800	16000	680	20	4	16000	10000	380
18 Apr 2024	*6700	*16000	*1040	*20	*7	*16000	*5280	*600
19 Apr 2024	*6700	*16000	*1040	*20	*7	*16000	*5280	*600
20 Apr 2024	*6700	*16000	*1040	*20	*7	*16000	*5280	*600
21 Apr 2024	*6700	*16000	*1040	*20	*7	*16000	*5280	*600
22 Apr 2024	*6700	*16000	*1040	*20	*7	*16000	*5280	*600
23 Apr 2024	1400	16000	1400	20	12	16000	10000	820
24 Apr 2024	1400	16000	1400	20	12	16000	10000	820
25 Apr 2024	*1250	*16000	*1040	*20	*7	*8600	*8280	*990
26 Apr 2024	*1250	*16000	*1040	*20	*7	*8600	*8280	*990
27 Apr 2024	*1250	*16000	*1040	*20	*7	*8600	*8280	*990
28 Apr 2024	*1250	*16000	*1040	*20	*7	*8600	*8280	*990
29 Apr 2024	*1250	*16000	*1040	*20	*7	*8600	*8280	*990
30 Apr 2024	*1250	*16000	*1040	*20	*7	*8600	*8280	*990

* 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 station, per month.

Date	S4	S5	S6	S8	S9	S10	S11	S12
April	E	E	E	IC	IC	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
S10	02 Apr 2024	816	1200	120e	52
S10	09 Apr 2024	824	>16000	>12000	5800
S10	16 Apr 2024	812	>16000	>12000	6400
S10	23 Apr 2024	819	80e	10e	8e
S11	02 Apr 2024	945	>16000	>12000	2200e
S11	09 Apr 2024	956	560	16e	10e
S11	16 Apr 2024	940	60e	2e	10e
S11	23 Apr 2024	945	>16000	>12000	>12000
S12	02 Apr 2024	1020	1600	100e	44
S12	09 Apr 2024	1018	380e	<20	2e
S12	16 Apr 2024	1003	16e	4e	6e
S12	23 Apr 2024	1007	>16000	>12000	4800
S4	02 Apr 2024	829	1400	92	42
S4	09 Apr 2024	838	12000	960	360e
S4	16 Apr 2024	825	1100	86	34e
S4	23 Apr 2024	833	100e	6e	8e
S5	02 Apr 2024	930	>16000	>12000	>12000
S5	09 Apr 2024	938	3600e	380e	120e
S5	16 Apr 2024	923	>16000	>12000	>12000
S5	23 Apr 2024	928	>16000	>12000	4000
S6	02 Apr 2024	957	1400	72	48
S6	09 Apr 2024	1007	680	36e	4e
S6	16 Apr 2024	950	18e	6e	2e
S6	23 Apr 2024	956	>16000	>12000	11000
S8	02 Apr 2024	1038	100e	24e	2e
S8	09 Apr 2024	1032	<20	<2	<2
S8	16 Apr 2024	1020	<2	<2	<2
S8	23 Apr 2024	1023	20e	2e	<2
S9	02 Apr 2024	1058	12e	6e	<2
S9	09 Apr 2024	1047	2e	<2	2e
S9	16 Apr 2024	1039	<2	<2	2e
S9	23 Apr 2024	1038	<20	<2	2e

ns = not sampled

ND = no data

Table 2.8

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

Station	Date	Parameter	Value
S10	02 Apr 2024	Arrive Time	816
S10	02 Apr 2024	Weather	Sunny
S10	02 Apr 2024	Wind Speed (kts)	4.7
S10	02 Apr 2024	Wind Dir	E
S10	02 Apr 2024	Animal Life	
S10	02 Apr 2024	Floatables	None
S10	02 Apr 2024	Water Color	Green
S10	02 Apr 2024	Current Direction	S
S10	02 Apr 2024	Water Temp (C)	10.4
S10	02 Apr 2024	Wave Height (ft)	3.5
S10	02 Apr 2024	High Tide (ft)	4.25
S10	02 Apr 2024	High Tide Time	310
S10	02 Apr 2024	Low Tide (ft)	0.03
S10	02 Apr 2024	Low Tide Time	1149
S10	02 Apr 2024	Comments	Water clear; Trash-3; Kelp;Seagrass;Debris
S10	09 Apr 2024	Arrive Time	824
S10	09 Apr 2024	Weather	Sunny
S10	09 Apr 2024	Wind Speed (kts)	1.8
S10	09 Apr 2024	Wind Dir	NW
S10	09 Apr 2024	Animal Life	
S10	09 Apr 2024	Floatables	None
S10	09 Apr 2024	Water Color	Green
S10	09 Apr 2024	Current Direction	S
S10	09 Apr 2024	Water Temp (C)	8.1
S10	09 Apr 2024	Wave Height (ft)	3
S10	09 Apr 2024	High Tide (ft)	4.63
S10	09 Apr 2024	High Tide Time	1019
S10	09 Apr 2024	Low Tide (ft)	-0.9
S10	09 Apr 2024	Low Tide Time	419
S10	09 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass
S10	16 Apr 2024	Arrive Time	812
S10	16 Apr 2024	Weather	Sunny
S10	16 Apr 2024	Wind Speed (kts)	2.1
S10	16 Apr 2024	Wind Dir	E
S10	16 Apr 2024	Animal Life	
S10	16 Apr 2024	Floatables	None
S10	16 Apr 2024	Water Color	Green
S10	16 Apr 2024	Current Direction	S
S10	16 Apr 2024	Water Temp (C)	9.6
S10	16 Apr 2024	Wave Height (ft)	5.5
S10	16 Apr 2024	High Tide (ft)	3.95
S10	16 Apr 2024	High Tide Time	419
S10	16 Apr 2024	Low Tide (ft)	0.19
S10	16 Apr 2024	Low Tide Time	1208
S10	16 Apr 2024	Comments	Water clear; Trash-3; Kelp;Debris;Seagrass
S10	23 Apr 2024	Arrive Time	819
S10	23 Apr 2024	Weather	Cloudy
S10	23 Apr 2024	Wind Speed (kts)	1.9
S10	23 Apr 2024	Wind Dir	W
S10	23 Apr 2024	Animal Life	Bird-1;
S10	23 Apr 2024	Floatables	None
S10	23 Apr 2024	Water Color	Green
S10	23 Apr 2024	Current Direction	S

Station	Date	Parameter	Value
S10	23 Apr 2024	Water Temp (C)	13.7
S10	23 Apr 2024	Wave Height (ft)	4
S10	23 Apr 2024	High Tide (ft)	3.93
S10	23 Apr 2024	High Tide Time	939
S10	23 Apr 2024	Low Tide (ft)	-0.11
S10	23 Apr 2024	Low Tide Time	344
S10	23 Apr 2024	Comments	Water clear; Trash-3; Seagrass;Kelp;Algae;Debris
S11	02 Apr 2024	Arrive Time	945
S11	02 Apr 2024	Weather	Sunny
S11	02 Apr 2024	Wind Speed (kts)	0
S11	02 Apr 2024	Wind Dir	XX
S11	02 Apr 2024	Animal Life	
S11	02 Apr 2024	Floatables	None
S11	02 Apr 2024	Water Color	Green
S11	02 Apr 2024	Current Direction	S
S11	02 Apr 2024	Water Temp (C)	12.7
S11	02 Apr 2024	Wave Height (ft)	4
S11	02 Apr 2024	High Tide (ft)	4.25
S11	02 Apr 2024	High Tide Time	310
S11	02 Apr 2024	Low Tide (ft)	0.03
S11	02 Apr 2024	Low Tide Time	1149
S11	02 Apr 2024	Comments	Water clear; Trash-5; Kelp;Seagrass;Debris; Person/Walker/Jogger-3
S11	09 Apr 2024	Arrive Time	956
S11	09 Apr 2024	Weather	Sunny
S11	09 Apr 2024	Wind Speed (kts)	5.7
S11	09 Apr 2024	Wind Dir	NW
S11	09 Apr 2024	Animal Life	
S11	09 Apr 2024	Floatables	None
S11	09 Apr 2024	Water Color	Green
S11	09 Apr 2024	Current Direction	S
S11	09 Apr 2024	Water Temp (C)	8.9
S11	09 Apr 2024	Wave Height (ft)	3
S11	09 Apr 2024	High Tide (ft)	4.63
S11	09 Apr 2024	High Tide Time	1019
S11	09 Apr 2024	Low Tide (ft)	-0.9
S11	09 Apr 2024	Low Tide Time	419
S11	09 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-1
S11	16 Apr 2024	Arrive Time	940
S11	16 Apr 2024	Weather	Sunny
S11	16 Apr 2024	Wind Speed (kts)	4.4
S11	16 Apr 2024	Wind Dir	W
S11	16 Apr 2024	Animal Life	
S11	16 Apr 2024	Floatables	None
S11	16 Apr 2024	Water Color	Green
S11	16 Apr 2024	Current Direction	S
S11	16 Apr 2024	Water Temp (C)	12.3
S11	16 Apr 2024	Wave Height (ft)	6.5
S11	16 Apr 2024	High Tide (ft)	3.95
S11	16 Apr 2024	High Tide Time	419
S11	16 Apr 2024	Low Tide (ft)	0.19
S11	16 Apr 2024	Low Tide Time	1208
S11	16 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S11	23 Apr 2024	Arrive Time	945
S11	23 Apr 2024	Weather	Cloudy
S11	23 Apr 2024	Wind Speed (kts)	6.2

Station	Date	Parameter	Value
S11	23 Apr 2024	Wind Dir	SW
S11	23 Apr 2024	Animal Life	Bird-2;
S11	23 Apr 2024	Floatables	None
S11	23 Apr 2024	Water Color	Green
S11	23 Apr 2024	Current Direction	S
S11	23 Apr 2024	Water Temp (C)	13.6
S11	23 Apr 2024	Wave Height (ft)	3
S11	23 Apr 2024	High Tide (ft)	3.93
S11	23 Apr 2024	High Tide Time	939
S11	23 Apr 2024	Low Tide (ft)	-0.11
S11	23 Apr 2024	Low Tide Time	344
S11	23 Apr 2024	Comments	Water clear; Trash-3; Kelp;Seagrass;Debris
S12	02 Apr 2024	Arrive Time	1020
S12	02 Apr 2024	Weather	Sunny
S12	02 Apr 2024	Wind Speed (kts)	3.7
S12	02 Apr 2024	Wind Dir	W
S12	02 Apr 2024	Animal Life	Dog-1;
S12	02 Apr 2024	Floatables	None
S12	02 Apr 2024	Water Color	Green
S12	02 Apr 2024	Current Direction	S
S12	02 Apr 2024	Water Temp (C)	13.9
S12	02 Apr 2024	Wave Height (ft)	3.5
S12	02 Apr 2024	High Tide (ft)	4.25
S12	02 Apr 2024	High Tide Time	310
S12	02 Apr 2024	Low Tide (ft)	0.03
S12	02 Apr 2024	Low Tide Time	1149
S12	02 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Person/Walker/Jogger-3
S12	09 Apr 2024	Arrive Time	1018
S12	09 Apr 2024	Weather	Sunny
S12	09 Apr 2024	Wind Speed (kts)	3.7
S12	09 Apr 2024	Wind Dir	NW
S12	09 Apr 2024	Animal Life	Dog-2;
S12	09 Apr 2024	Floatables	None
S12	09 Apr 2024	Water Color	Green
S12	09 Apr 2024	Current Direction	S
S12	09 Apr 2024	Water Temp (C)	11.1
S12	09 Apr 2024	Wave Height (ft)	2
S12	09 Apr 2024	High Tide (ft)	4.63
S12	09 Apr 2024	High Tide Time	1019
S12	09 Apr 2024	Low Tide (ft)	-0.9
S12	09 Apr 2024	Low Tide Time	419
S12	09 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-2
S12	16 Apr 2024	Arrive Time	1003
S12	16 Apr 2024	Weather	Sunny
S12	16 Apr 2024	Wind Speed (kts)	5.9
S12	16 Apr 2024	Wind Dir	W
S12	16 Apr 2024	Animal Life	Bird-7; Dog-1;
S12	16 Apr 2024	Floatables	None
S12	16 Apr 2024	Water Color	Green
S12	16 Apr 2024	Current Direction	S
S12	16 Apr 2024	Water Temp (C)	14.2
S12	16 Apr 2024	Wave Height (ft)	6
S12	16 Apr 2024	High Tide (ft)	3.95
S12	16 Apr 2024	High Tide Time	419
S12	16 Apr 2024	Low Tide (ft)	0.19
S12	16 Apr 2024	Low Tide Time	1208

Station	Date	Parameter	Value
S12	16 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-2
S12	23 Apr 2024	Arrive Time	1007
S12	23 Apr 2024	Weather	Cloudy
S12	23 Apr 2024	Wind Speed (kts)	5
S12	23 Apr 2024	Wind Dir	SW
S12	23 Apr 2024	Animal Life	Bird-4;
S12	23 Apr 2024	Floatables	Foam
S12	23 Apr 2024	Water Color	Green
S12	23 Apr 2024	Current Direction	S
S12	23 Apr 2024	Water Temp (C)	12.8
S12	23 Apr 2024	Wave Height (ft)	4
S12	23 Apr 2024	High Tide (ft)	3.93
S12	23 Apr 2024	High Tide Time	939
S12	23 Apr 2024	Low Tide (ft)	-0.11
S12	23 Apr 2024	Low Tide Time	344
S12	23 Apr 2024	Comments	Water clear; Trash-2; Seagrass;Kelp
S4	02 Apr 2024	Arrive Time	829
S4	02 Apr 2024	Weather	Sunny
S4	02 Apr 2024	Wind Speed (kts)	1
S4	02 Apr 2024	Wind Dir	E
S4	02 Apr 2024	Animal Life	Bird-1;
S4	02 Apr 2024	Floatables	None
S4	02 Apr 2024	Water Color	Green
S4	02 Apr 2024	Current Direction	S
S4	02 Apr 2024	Water Temp (C)	11.5
S4	02 Apr 2024	Wave Height (ft)	4
S4	02 Apr 2024	High Tide (ft)	4.25
S4	02 Apr 2024	High Tide Time	310
S4	02 Apr 2024	Low Tide (ft)	0.03
S4	02 Apr 2024	Low Tide Time	1149
S4	02 Apr 2024	Comments	Water clear; Trash-3; Kelp;Seagrass;Debris
S4	09 Apr 2024	Arrive Time	838
S4	09 Apr 2024	Weather	Sunny
S4	09 Apr 2024	Wind Speed (kts)	3.9
S4	09 Apr 2024	Wind Dir	NW
S4	09 Apr 2024	Animal Life	
S4	09 Apr 2024	Floatables	None
S4	09 Apr 2024	Water Color	Green
S4	09 Apr 2024	Current Direction	S
S4	09 Apr 2024	Water Temp (C)	8.1
S4	09 Apr 2024	Wave Height (ft)	3
S4	09 Apr 2024	High Tide (ft)	4.63
S4	09 Apr 2024	High Tide Time	1019
S4	09 Apr 2024	Low Tide (ft)	-0.9
S4	09 Apr 2024	Low Tide Time	419
S4	09 Apr 2024	Comments	Water clear; Trash-1; Seagrass;Kelp
S4	16 Apr 2024	Arrive Time	825
S4	16 Apr 2024	Weather	Sunny
S4	16 Apr 2024	Wind Speed (kts)	2.5
S4	16 Apr 2024	Wind Dir	E
S4	16 Apr 2024	Animal Life	
S4	16 Apr 2024	Floatables	None
S4	16 Apr 2024	Water Color	Green
S4	16 Apr 2024	Current Direction	S
S4	16 Apr 2024	Water Temp (C)	11
S4	16 Apr 2024	Wave Height (ft)	6

Station	Date	Parameter	Value
S4	16 Apr 2024	High Tide (ft)	3.95
S4	16 Apr 2024	High Tide Time	419
S4	16 Apr 2024	Low Tide (ft)	0.19
S4	16 Apr 2024	Low Tide Time	1208
S4	16 Apr 2024	Comments	Water clear; Trash-3; Kelp;Seagrass;Debris
S4	23 Apr 2024	Arrive Time	833
S4	23 Apr 2024	Weather	Cloudy
S4	23 Apr 2024	Wind Speed (kts)	1.8
S4	23 Apr 2024	Wind Dir	W
S4	23 Apr 2024	Animal Life	
S4	23 Apr 2024	Floatables	None
S4	23 Apr 2024	Water Color	Green
S4	23 Apr 2024	Current Direction	S
S4	23 Apr 2024	Water Temp (C)	13.1
S4	23 Apr 2024	Wave Height (ft)	4
S4	23 Apr 2024	High Tide (ft)	3.93
S4	23 Apr 2024	High Tide Time	939
S4	23 Apr 2024	Low Tide (ft)	-0.11
S4	23 Apr 2024	Low Tide Time	344
S4	23 Apr 2024	Comments	Water clear; Trash-3; Kelp;Seagrass;Debris
S5	02 Apr 2024	Arrive Time	930
S5	02 Apr 2024	Weather	Sunny
S5	02 Apr 2024	Wind Speed (kts)	1.1
S5	02 Apr 2024	Wind Dir	E
S5	02 Apr 2024	Animal Life	
S5	02 Apr 2024	Floatables	Foam
S5	02 Apr 2024	Water Color	Brown
S5	02 Apr 2024	Current Direction	S
S5	02 Apr 2024	Water Temp (C)	9.7
S5	02 Apr 2024	Wave Height (ft)	2
S5	02 Apr 2024	High Tide (ft)	4.25
S5	02 Apr 2024	High Tide Time	310
S5	02 Apr 2024	Low Tide (ft)	0.03
S5	02 Apr 2024	Low Tide Time	1149
S5	02 Apr 2024	Comments	Water clear; Trash-3; Debris;Kelp; Sewage-like odor
S5	09 Apr 2024	Arrive Time	938
S5	09 Apr 2024	Weather	Sunny
S5	09 Apr 2024	Wind Speed (kts)	4
S5	09 Apr 2024	Wind Dir	NW
S5	09 Apr 2024	Animal Life	Dog-1;
S5	09 Apr 2024	Floatables	None
S5	09 Apr 2024	Water Color	Green
S5	09 Apr 2024	Current Direction	S
S5	09 Apr 2024	Water Temp (C)	11.8
S5	09 Apr 2024	Wave Height (ft)	3
S5	09 Apr 2024	High Tide (ft)	4.63
S5	09 Apr 2024	High Tide Time	1019
S5	09 Apr 2024	Low Tide (ft)	-0.9
S5	09 Apr 2024	Low Tide Time	419
S5	09 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-1
S5	16 Apr 2024	Arrive Time	923
S5	16 Apr 2024	Weather	Sunny
S5	16 Apr 2024	Wind Speed (kts)	5.1
S5	16 Apr 2024	Wind Dir	W
S5	16 Apr 2024	Animal Life	
S5	16 Apr 2024	Floatables	None

Station	Date	Parameter	Value
S5	16 Apr 2024	Water Color	Green
S5	16 Apr 2024	Current Direction	S
S5	16 Apr 2024	Water Temp (C)	12.9
S5	16 Apr 2024	Wave Height (ft)	3.5
S5	16 Apr 2024	High Tide (ft)	3.95
S5	16 Apr 2024	High Tide Time	419
S5	16 Apr 2024	Low Tide (ft)	0.19
S5	16 Apr 2024	Low Tide Time	1208
S5	16 Apr 2024	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris; Sewage-like odor
S5	23 Apr 2024	Arrive Time	928
S5	23 Apr 2024	Weather	Cloudy
S5	23 Apr 2024	Wind Speed (kts)	4.9
S5	23 Apr 2024	Wind Dir	W
S5	23 Apr 2024	Animal Life	
S5	23 Apr 2024	Floatables	None
S5	23 Apr 2024	Water Color	Green
S5	23 Apr 2024	Current Direction	S
S5	23 Apr 2024	Water Temp (C)	13.1
S5	23 Apr 2024	Wave Height (ft)	3
S5	23 Apr 2024	High Tide (ft)	3.93
S5	23 Apr 2024	High Tide Time	939
S5	23 Apr 2024	Low Tide (ft)	-0.11
S5	23 Apr 2024	Low Tide Time	344
S5	23 Apr 2024	Comments	Water clear; Trash-3; Kelp;Seagrass;Debris
S6	02 Apr 2024	Arrive Time	957
S6	02 Apr 2024	Weather	Sunny
S6	02 Apr 2024	Wind Speed (kts)	2.3
S6	02 Apr 2024	Wind Dir	NW
S6	02 Apr 2024	Animal Life	
S6	02 Apr 2024	Floatables	None
S6	02 Apr 2024	Water Color	Green
S6	02 Apr 2024	Current Direction	S
S6	02 Apr 2024	Water Temp (C)	12.8
S6	02 Apr 2024	Wave Height (ft)	3.5
S6	02 Apr 2024	High Tide (ft)	4.25
S6	02 Apr 2024	High Tide Time	310
S6	02 Apr 2024	Low Tide (ft)	0.03
S6	02 Apr 2024	Low Tide Time	1149
S6	02 Apr 2024	Comments	Water clear; Trash-1; Kelp;Algae
S6	09 Apr 2024	Arrive Time	1007
S6	09 Apr 2024	Weather	Sunny
S6	09 Apr 2024	Wind Speed (kts)	1.6
S6	09 Apr 2024	Wind Dir	NW
S6	09 Apr 2024	Animal Life	Dog-1;
S6	09 Apr 2024	Floatables	None
S6	09 Apr 2024	Water Color	Green
S6	09 Apr 2024	Current Direction	S
S6	09 Apr 2024	Water Temp (C)	10.9
S6	09 Apr 2024	Wave Height (ft)	3
S6	09 Apr 2024	High Tide (ft)	4.63
S6	09 Apr 2024	High Tide Time	1019
S6	09 Apr 2024	Low Tide (ft)	-0.9
S6	09 Apr 2024	Low Tide Time	419
S6	09 Apr 2024	Comments	Water clear; Trash-1; Seagrass;Kelp;Algae; Person/Walker/Jogger-1
S6	16 Apr 2024	Arrive Time	950

Station	Date	Parameter	Value
S6	16 Apr 2024	Weather	Sunny
S6	16 Apr 2024	Wind Speed (kts)	4.7
S6	16 Apr 2024	Wind Dir	W
S6	16 Apr 2024	Animal Life	
S6	16 Apr 2024	Floatables	None
S6	16 Apr 2024	Water Color	Green
S6	16 Apr 2024	Current Direction	S
S6	16 Apr 2024	Water Temp (C)	11.9
S6	16 Apr 2024	Wave Height (ft)	6
S6	16 Apr 2024	High Tide (ft)	3.95
S6	16 Apr 2024	High Tide Time	419
S6	16 Apr 2024	Low Tide (ft)	0.19
S6	16 Apr 2024	Low Tide Time	1208
S6	16 Apr 2024	Comments	Water clear; Trash-1; Kelp;Algae; Person/Walker/Jogger-2
S6	23 Apr 2024	Arrive Time	956
S6	23 Apr 2024	Weather	Cloudy
S6	23 Apr 2024	Wind Speed (kts)	7.1
S6	23 Apr 2024	Wind Dir	SW
S6	23 Apr 2024	Animal Life	
S6	23 Apr 2024	Floatables	None
S6	23 Apr 2024	Water Color	Green
S6	23 Apr 2024	Current Direction	S
S6	23 Apr 2024	Water Temp (C)	13.1
S6	23 Apr 2024	Wave Height (ft)	4
S6	23 Apr 2024	High Tide (ft)	3.93
S6	23 Apr 2024	High Tide Time	939
S6	23 Apr 2024	Low Tide (ft)	-0.11
S6	23 Apr 2024	Low Tide Time	344
S6	23 Apr 2024	Comments	Water clear; Trash-1; Algae;Debris
S8	02 Apr 2024	Arrive Time	1038
S8	02 Apr 2024	Weather	Sunny
S8	02 Apr 2024	Wind Speed (kts)	3
S8	02 Apr 2024	Wind Dir	W
S8	02 Apr 2024	Animal Life	
S8	02 Apr 2024	Floatables	None
S8	02 Apr 2024	Water Color	Green
S8	02 Apr 2024	Current Direction	S
S8	02 Apr 2024	Water Temp (C)	14.2
S8	02 Apr 2024	Wave Height (ft)	3
S8	02 Apr 2024	High Tide (ft)	4.25
S8	02 Apr 2024	High Tide Time	310
S8	02 Apr 2024	Low Tide (ft)	0.03
S8	02 Apr 2024	Low Tide Time	1149
S8	02 Apr 2024	Comments	Water clear; Trash-2; Kelp;Debris;Seagrass; Person/Walker/Jogger-2
S8	09 Apr 2024	Arrive Time	1032
S8	09 Apr 2024	Weather	Sunny
S8	09 Apr 2024	Wind Speed (kts)	2.3
S8	09 Apr 2024	Wind Dir	NW
S8	09 Apr 2024	Animal Life	
S8	09 Apr 2024	Floatables	None
S8	09 Apr 2024	Water Color	Green
S8	09 Apr 2024	Current Direction	S
S8	09 Apr 2024	Water Temp (C)	11.7
S8	09 Apr 2024	Wave Height (ft)	2
S8	09 Apr 2024	High Tide (ft)	4.63
S8	09 Apr 2024	High Tide Time	1019
S8	09 Apr 2024	Low Tide (ft)	-0.9

Station	Date	Parameter	Value
S8	09 Apr 2024	Low Tide Time	419
S8	09 Apr 2024	Comments	Water clear; Trash-1; Seagrass;Kelp
S8	16 Apr 2024	Arrive Time	1020
S8	16 Apr 2024	Weather	Sunny
S8	16 Apr 2024	Wind Speed (kts)	4.6
S8	16 Apr 2024	Wind Dir	W
S8	16 Apr 2024	Animal Life	Bird-2;
S8	16 Apr 2024	Floatables	None
S8	16 Apr 2024	Water Color	Green
S8	16 Apr 2024	Current Direction	S
S8	16 Apr 2024	Water Temp (C)	15.3
S8	16 Apr 2024	Wave Height (ft)	4.5
S8	16 Apr 2024	High Tide (ft)	3.95
S8	16 Apr 2024	High Tide Time	419
S8	16 Apr 2024	Low Tide (ft)	0.19
S8	16 Apr 2024	Low Tide Time	1208
S8	16 Apr 2024	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris
S8	23 Apr 2024	Arrive Time	1023
S8	23 Apr 2024	Weather	Cloudy
S8	23 Apr 2024	Wind Speed (kts)	7
S8	23 Apr 2024	Wind Dir	SW
S8	23 Apr 2024	Animal Life	
S8	23 Apr 2024	Floatables	None
S8	23 Apr 2024	Water Color	Green
S8	23 Apr 2024	Current Direction	S
S8	23 Apr 2024	Water Temp (C)	13.1
S8	23 Apr 2024	Wave Height (ft)	4
S8	23 Apr 2024	High Tide (ft)	3.93
S8	23 Apr 2024	High Tide Time	939
S8	23 Apr 2024	Low Tide (ft)	-0.11
S8	23 Apr 2024	Low Tide Time	344
S8	23 Apr 2024	Comments	Water clear; Trash-2; Seagrass;Kelp; Person/Walker/Jogger-2
S9	02 Apr 2024	Arrive Time	1058
S9	02 Apr 2024	Weather	Sunny
S9	02 Apr 2024	Wind Speed (kts)	2.5
S9	02 Apr 2024	Wind Dir	W
S9	02 Apr 2024	Animal Life	Bird-3;
S9	02 Apr 2024	Floatables	None
S9	02 Apr 2024	Water Color	Green
S9	02 Apr 2024	Current Direction	S
S9	02 Apr 2024	Water Temp (C)	13.2
S9	02 Apr 2024	Wave Height (ft)	3
S9	02 Apr 2024	High Tide (ft)	4.25
S9	02 Apr 2024	High Tide Time	310
S9	02 Apr 2024	Low Tide (ft)	0.03
S9	02 Apr 2024	Low Tide Time	1149
S9	02 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-3
S9	09 Apr 2024	Arrive Time	1047
S9	09 Apr 2024	Weather	Sunny
S9	09 Apr 2024	Wind Speed (kts)	1.8
S9	09 Apr 2024	Wind Dir	NW
S9	09 Apr 2024	Animal Life	
S9	09 Apr 2024	Floatables	None
S9	09 Apr 2024	Water Color	Green
S9	09 Apr 2024	Current Direction	S

Station	Date	Parameter	Value
S9	09 Apr 2024	Water Temp (C)	11.8
S9	09 Apr 2024	Wave Height (ft)	2
S9	09 Apr 2024	High Tide (ft)	4.63
S9	09 Apr 2024	High Tide Time	1019
S9	09 Apr 2024	Low Tide (ft)	-0.9
S9	09 Apr 2024	Low Tide Time	419
S9	09 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
S9	16 Apr 2024	Arrive Time	1039
S9	16 Apr 2024	Weather	Sunny
S9	16 Apr 2024	Wind Speed (kts)	7.1
S9	16 Apr 2024	Wind Dir	W
S9	16 Apr 2024	Animal Life	
S9	16 Apr 2024	Floatables	None
S9	16 Apr 2024	Water Color	Green
S9	16 Apr 2024	Current Direction	S
S9	16 Apr 2024	Water Temp (C)	14.9
S9	16 Apr 2024	Wave Height (ft)	4
S9	16 Apr 2024	High Tide (ft)	3.95
S9	16 Apr 2024	High Tide Time	419
S9	16 Apr 2024	Low Tide (ft)	0.19
S9	16 Apr 2024	Low Tide Time	1208
S9	16 Apr 2024	Comments	Water clear; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-1
S9	23 Apr 2024	Arrive Time	1038
S9	23 Apr 2024	Weather	Cloudy
S9	23 Apr 2024	Wind Speed (kts)	6.1
S9	23 Apr 2024	Wind Dir	SW
S9	23 Apr 2024	Animal Life	
S9	23 Apr 2024	Floatables	None
S9	23 Apr 2024	Water Color	Green
S9	23 Apr 2024	Current Direction	S
S9	23 Apr 2024	Water Temp (C)	13
S9	23 Apr 2024	Wave Height (ft)	3
S9	23 Apr 2024	High Tide (ft)	3.93
S9	23 Apr 2024	High Tide Time	939
S9	23 Apr 2024	Low Tide (ft)	-0.11
S9	23 Apr 2024	Low Tide Time	344
S9	23 Apr 2024	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris

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 Apr 2024	*1110	*202	*39	*18	*7	*9	*3389
02 Apr 2024	816	222	50	30	13	11	2940
03 Apr 2024	816	222	50	30	13	11	2940
04 Apr 2024	816	222	50	30	13	11	2940
05 Apr 2024	*1367	*193	*98	*60	*20	*18	*2344
06 Apr 2024	*1367	*193	*98	*60	*20	*18	*2344
07 Apr 2024	*1367	*193	*98	*60	*20	*18	*2344
08 Apr 2024	*1367	*193	*98	*60	*20	*18	*2344
09 Apr 2024	1027	347	219	32	16	16	1667
10 Apr 2024	1027	347	219	32	16	16	1667
11 Apr 2024	*610	*367	*220	*28	*17	*6	*2402
12 Apr 2024	*610	*367	*220	*28	*17	*6	*2402
13 Apr 2024	*610	*367	*220	*28	*17	*6	*2402
14 Apr 2024	*610	*367	*220	*28	*17	*6	*2402
15 Apr 2024	*610	*367	*220	*28	*17	*6	*2402
16 Apr 2024	770	129	86	16	11	5	940
17 Apr 2024	770	129	86	16	11	5	940
18 Apr 2024	*1060	*279	*220	*28	*17	*6	*600
19 Apr 2024	*1060	*279	*220	*28	*17	*6	*600
20 Apr 2024	*1060	*279	*220	*28	*17	*6	*600
21 Apr 2024	*1060	*279	*220	*28	*17	*6	*600
22 Apr 2024	*1060	*279	*220	*28	*17	*6	*600
23 Apr 2024	376	330	405	67	29	6	522
24 Apr 2024	376	330	405	67	29	6	522
25 Apr 2024	*174	*197	*287	*42	*25	*9	*262
26 Apr 2024	*174	*197	*287	*42	*25	*9	*262
27 Apr 2024	*174	*197	*287	*42	*25	*9	*262
28 Apr 2024	*174	*197	*287	*42	*25	*9	*262
29 Apr 2024	*174	*197	*287	*42	*25	*9	*262
30 Apr 2024	*174	*197	*287	*42	*25	*9	*262

* 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
02 Apr 2024	IC	E	IC	IC	IC	IC	E
09 Apr 2024	E	E	E	IC	IC	IC	E
16 Apr 2024	E	IC	IC	IC	IC	IC	IC
23 Apr 2024	IC	E	E	E	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 Apr 2024	365	67	30	22	9	6	1792
02 Apr 2024	279	73	31	27	12	7	1467
03 Apr 2024	233	116	45	28	11	6	1205
04 Apr 2024	233	116	45	28	11	6	1205
05 Apr 2024	233	116	45	28	11	6	1205
06 Apr 2024	233	116	45	28	11	6	1205
07 Apr 2024	233	116	45	28	11	6	1205
08 Apr 2024	233	116	45	28	11	6	1205
09 Apr 2024	224	113	43	11	10	6	1025
10 Apr 2024	224	113	43	11	10	6	1025
11 Apr 2024	224	113	43	11	10	6	1025
12 Apr 2024	224	113	43	11	10	6	1025
13 Apr 2024	224	113	43	11	10	6	1025
14 Apr 2024	224	113	43	11	10	6	1025
15 Apr 2024	224	113	43	11	10	6	1025
16 Apr 2024	234	63	28	9	8	5	555
17 Apr 2024	364	52	41	10	9	6	390
18 Apr 2024	364	52	41	10	9	6	390
19 Apr 2024	364	52	41	10	9	6	390
20 Apr 2024	364	52	41	10	9	6	390
21 Apr 2024	364	52	41	10	9	6	390
22 Apr 2024	364	52	41	10	9	6	390
23 Apr 2024	126	60	67	18	11	4	343
24 Apr 2024	126	60	67	18	11	4	343
25 Apr 2024	126	60	67	18	11	4	343
26 Apr 2024	126	60	67	18	11	4	343
27 Apr 2024	126	60	67	18	11	4	343
28 Apr 2024	126	60	67	18	11	4	343
29 Apr 2024	126	60	67	18	11	4	343
30 Apr 2024	127	108	136	27	14	4	198

* 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
April	E	E	E	E	IC	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	119		124		125		126		132			139		140				
	2m	6m	2m	6m	2m	6m	2m	6m	2m	6m	9m	2m	12m	18m	2m	6m	9m	
01 Apr 2024	*8270	*8800	*6200	*690	*5200	*690	*1660	*341	*174	*3	*47	*43	*2	*3	*14	*16000	*9000	*9700
02 Apr 2024	540	1600	2800	1000	5600	1000	3000	680	340	4	74	80	2	4	20	16000	9600	16000
03 Apr 2024	540	1600	2800	1000	5600	1000	3000	680	340	4	74	80	2	4	20	16000	9600	16000
04 Apr 2024	540	1600	2800	1000	5600	1000	3000	680	340	4	74	80	2	4	20	16000	9600	16000
05 Apr 2024	*8270	*8800	*7400	*1100	*6000	*1100	*4300	*760	*870	*32	*157	*230	*141	*261	*310	*16000	*12800	*9700
06 Apr 2024	*8270	*8800	*7400	*1100	*6000	*1100	*4300	*760	*870	*32	*157	*230	*141	*261	*310	*16000	*12800	*9700
07 Apr 2024	*8270	*8800	*7400	*1100	*6000	*1100	*4300	*760	*870	*32	*157	*230	*141	*261	*310	*16000	*12800	*9700
08 Apr 2024	*8270	*8800	*7400	*1100	*6000	*1100	*4300	*760	*870	*32	*157	*230	*141	*261	*310	*16000	*12800	*9700
09 Apr 2024	9800	6200	12000	1200	5000	1200	5600	680	340	16	200	300	90	320	20	16000	10000	11000
10 Apr 2024	9800	6200	12000	1200	5000	1200	5600	680	340	16	200	300	90	320	20	16000	10000	11000
11 Apr 2024	*5170	*3900	*7400	*7000	*6100	*7000	*4500	*662	*203	*38	*220	*190	*46	*161	*20	*16000	*13000	*13500
12 Apr 2024	*5170	*3900	*7400	*7000	*6100	*7000	*4500	*662	*203	*38	*220	*190	*46	*161	*20	*16000	*13000	*13500
13 Apr 2024	*5170	*3900	*7400	*7000	*6100	*7000	*4500	*662	*203	*38	*220	*190	*46	*161	*20	*16000	*13000	*13500
14 Apr 2024	*5170	*3900	*7400	*7000	*6100	*7000	*4500	*662	*203	*38	*220	*190	*46	*161	*20	*16000	*13000	*13500
15 Apr 2024	*5170	*3900	*7400	*7000	*6100	*7000	*4500	*662	*203	*38	*220	*190	*46	*161	*20	*16000	*13000	*13500
16 Apr 2024	9800	1600	2800	1000	5000	1000	3000	24	66	16	200	80	2	16	20	16000	10000	11000
17 Apr 2024	9800	1600	2800	1000	5000	1000	3000	24	66	16	200	80	2	16	20	16000	10000	11000
18 Apr 2024	*12900	*3850	*7400	*7000	*6100	*7000	*4500	*662	*354	*38	*220	*190	*46	*168	*21	*10700	*9800	*13500
19 Apr 2024	*12900	*3850	*7400	*7000	*6100	*7000	*4500	*662	*354	*38	*220	*190	*46	*168	*21	*10700	*9800	*13500
20 Apr 2024	*12900	*3850	*7400	*7000	*6100	*7000	*4500	*662	*354	*38	*220	*190	*46	*168	*21	*10700	*9800	*13500
21 Apr 2024	*12900	*3850	*7400	*7000	*6100	*7000	*4500	*662	*354	*38	*220	*190	*46	*168	*21	*10700	*9800	*13500
22 Apr 2024	*12900	*3850	*7400	*7000	*6100	*7000	*4500	*662	*354	*38	*220	*190	*46	*168	*21	*10700	*9800	*13500
23 Apr 2024	9800	1500	2800	1000	6600	1000	3000	1300	340	60	240	80	90	16	20	6400	9600	11000
24 Apr 2024	9800	1500	2800	1000	6600	1000	3000	1300	340	60	240	80	90	16	20	6400	9600	11000
25 Apr 2024	*5150	*1130	*1720	*5800	*5800	*700	*3080	*662	*514	*41	*420	*190	*95	*168	*21	*5900	*5450	*5900
26 Apr 2024	*5150	*1130	*1720	*5800	*5800	*700	*3080	*662	*514	*41	*420	*190	*95	*168	*21	*5900	*5450	*5900
27 Apr 2024	*5150	*1130	*1720	*5800	*5800	*700	*3080	*662	*514	*41	*420	*190	*95	*168	*21	*5900	*5450	*5900
28 Apr 2024	*5150	*1130	*1720	*5800	*5800	*700	*3080	*662	*514	*41	*420	*190	*95	*168	*21	*5900	*5450	*5900
29 Apr 2024	*5150	*1130	*1720	*5800	*5800	*700	*3080	*662	*514	*41	*420	*190	*95	*168	*21	*5900	*5450	*5900
30 Apr 2024	*5150	*1130	*1720	*5800	*5800	*700	*3080	*662	*514	*41	*420	*190	*95	*168	*21	*5900	*5450	*5900

* 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 station, 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
April	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	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	02 Apr 2024	1122	2	500	340e	14e
I19	02 Apr 2024	1122	6	760	72	34e
I19	02 Apr 2024	1122	11	2800e	300e	120e
I19	09 Apr 2024	1055	2	9800	300e	18e
I19	09 Apr 2024	1055	6	6200	180e	100e
I19	09 Apr 2024	1055	11	12000	500	420
I19	16 Apr 2024	1048	2	>16000	5600	800
I19	16 Apr 2024	1048	6	1500	160e	32e
I19	16 Apr 2024	1048	11	640	140e	84
I19	23 Apr 2024	1037	2	24e	12e	6e
I19	23 Apr 2024	1037	6	6e	4e	2e
I19	23 Apr 2024	1037	11	4e	2e	2e
I24	02 Apr 2024	1144	2	7200	500	32e
I24	02 Apr 2024	1144	6	1000	240e	110
I24	02 Apr 2024	1144	11	6000	220e	220e
I24	09 Apr 2024	1122	2	5000	3200e	52
I24	09 Apr 2024	1122	6	>16000	6200	1600e
I24	09 Apr 2024	1122	11	16000	1600e	160e
I24	16 Apr 2024	1108	2	2e	<2	<2
I24	16 Apr 2024	1108	6	2e	<2	<2
I24	16 Apr 2024	1108	11	2e	<2	2e
I24	23 Apr 2024	1056	2	6600	1800e	460
I24	23 Apr 2024	1056	6	400	64	22e
I24	23 Apr 2024	1056	11	160e	58	18e
I25	02 Apr 2024	1152	2	720	36e	8e
I25	02 Apr 2024	1152	6	1800e	66	12e
I25	02 Apr 2024	1152	9	7000	300e	86
I25	09 Apr 2024	1128	2	>16000	6200	200e
I25	09 Apr 2024	1128	6	>16000	9200	900
I25	09 Apr 2024	1128	9	3400e	1100	74
I25	16 Apr 2024	1115	2	<2	<2	<2
I25	16 Apr 2024	1115	6	<2	<2	<2
I25	16 Apr 2024	1115	9	4e	<2	2e
I25	23 Apr 2024	1103	2	>16000	>12000	12000
I25	23 Apr 2024	1103	6	3200e	1400e	320e
I25	23 Apr 2024	1103	9	2000e	380e	100e
I26	02 Apr 2024	1203	2	1300	100e	60
I26	02 Apr 2024	1203	6	8600	300e	98
I26	02 Apr 2024	1203	9	9800	360e	120e

Station	Date	Time	Depth	Total	Fecal	Enteroc
I26	09 Apr 2024	1141	2	24e	2e	<2
I26	09 Apr 2024	1141	6	28e	4e	<2
I26	09 Apr 2024	1141	9	66	2e	<2
I26	16 Apr 2024	1126	2	<2	<2	<2
I26	16 Apr 2024	1126	6	<2	<2	<2
I26	16 Apr 2024	1126	9	2e	2e	2e
I26	23 Apr 2024	1116	2	>16000	6400	1000e
I26	23 Apr 2024	1116	6	1000	180e	54
I26	23 Apr 2024	1116	9	580	110	16e
I32	02 Apr 2024	1227	2	66	6e	2e
I32	02 Apr 2024	1227	6	1200	160e	66
I32	02 Apr 2024	1227	9	6600	300e	120
I32	09 Apr 2024	1202	2	16e	2e	<2
I32	09 Apr 2024	1202	6	200e	10e	<2
I32	09 Apr 2024	1202	9	300e	4e	6e
I32	16 Apr 2024	1139	2	<2	<2	<2
I32	16 Apr 2024	1139	6	<2	2e	<2
I32	16 Apr 2024	1139	9	10e	<2	6e
I32	23 Apr 2024	1126	2	900	320e	42
I32	23 Apr 2024	1126	6	640	400	82
I32	23 Apr 2024	1126	9	80e	20e	4e
I39	02 Apr 2024	1058	2	280e	12e	12e
I39	02 Apr 2024	1058	12	520	32e	14e
I39	02 Apr 2024	1058	18	600e	60e	24e
I39	09 Apr 2024	1031	2	90	6e	<2
I39	09 Apr 2024	1031	12	320e	18e	<2
I39	09 Apr 2024	1031	18	<20	8e	2e
I39	16 Apr 2024	1026	2	<2	<2	<2
I39	16 Apr 2024	1026	12	16e	2e	<2
I39	16 Apr 2024	1026	18	22e	2e	<2
I39	23 Apr 2024	1014	2	100	16e	20e
I39	23 Apr 2024	1014	12	<2	<2	<2
I39	23 Apr 2024	1014	18	12e	4e	2e
I40	02 Apr 2024	1133	2	>16000	2800e	280e
I40	02 Apr 2024	1133	6	9600	400	140e
I40	02 Apr 2024	1133	9	>16000	1800e	900
I40	09 Apr 2024	1107	2	5400	560	16e
I40	09 Apr 2024	1107	6	10000	260e	110
I40	09 Apr 2024	1107	9	11000	460	200e
I40	16 Apr 2024	1100	2	320e	14e	2e
I40	16 Apr 2024	1100	6	700	32e	22e
I40	16 Apr 2024	1100	9	180e	20e	18e
I40	23 Apr 2024	1048	2	6400	400e	400
I40	23 Apr 2024	1048	6	1300	220e	88
I40	23 Apr 2024	1048	9	800	280e	86

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
119	02 Apr 2024	Depth (m)	10
119	02 Apr 2024	Arrive Time	1122
119	02 Apr 2024	Depart Time	1123
119	02 Apr 2024	Air Temp (C)	15.4
119	02 Apr 2024	Weather	Clear
119	02 Apr 2024	Visibility (mi)	7
119	02 Apr 2024	Wind Speed (kts)	4.8
119	02 Apr 2024	Wind Dir	S
119	02 Apr 2024	Water Color	Green
119	02 Apr 2024	Wave Height Low (ft)	2
119	02 Apr 2024	Wave Period (sec)	10
119	02 Apr 2024	Sea State	Calm
119	02 Apr 2024	High Tide (ft)	4.32
119	02 Apr 2024	High Tide Time	312
119	02 Apr 2024	Low Tide (ft)	-0.09
119	02 Apr 2024	Low Tide Time	1136
119	02 Apr 2024	Comments	Bleeder valve checked again due to concern over straight up and down signal- no blackage detected
119	09 Apr 2024	Depth (m)	11
119	09 Apr 2024	Arrive Time	1055
119	09 Apr 2024	Depart Time	1100
119	09 Apr 2024	Air Temp (C)	14.8
119	09 Apr 2024	Weather	Clear
119	09 Apr 2024	Visibility (mi)	8
119	09 Apr 2024	Wind Speed (kts)	6.5
119	09 Apr 2024	Wind Dir	NW
119	09 Apr 2024	Water Color	Brownish-Green
119	09 Apr 2024	Wave Height Low (ft)	3
119	09 Apr 2024	Wave Period (sec)	6
119	09 Apr 2024	Sea State	Calm
119	09 Apr 2024	High Tide (ft)	6.06
119	09 Apr 2024	High Tide Time	2218
119	09 Apr 2024	Low Tide (ft)	-1
119	09 Apr 2024	Low Tide Time	418
119	09 Apr 2024	Comments	
119	16 Apr 2024	Depth (m)	10
119	16 Apr 2024	Arrive Time	1048
119	16 Apr 2024	Depart Time	1050
119	16 Apr 2024	Air Temp (C)	15
119	16 Apr 2024	Weather	Clear
119	16 Apr 2024	Visibility (mi)	16
119	16 Apr 2024	Wind Speed (kts)	5.8
119	16 Apr 2024	Wind Dir	NW
119	16 Apr 2024	Water Color	Greenish-Brown
119	16 Apr 2024	Wave Height Low (ft)	3
119	16 Apr 2024	Wave Period (sec)	12
119	16 Apr 2024	Sea State	Calm
119	16 Apr 2024	High Tide (ft)	3.93
119	16 Apr 2024	High Tide Time	406
119	16 Apr 2024	Low Tide (ft)	0.05
119	16 Apr 2024	Low Tide Time	1154
119	16 Apr 2024	Comments	
119	23 Apr 2024	Depth (m)	12

Station	Date	Parameter	Value
119	23 Apr 2024	Arrive Time	1037
119	23 Apr 2024	Depart Time	1043
119	23 Apr 2024	Air Temp (C)	14.7
119	23 Apr 2024	Weather	Overcast
119	23 Apr 2024	Visibility (mi)	7
119	23 Apr 2024	Wind Speed (kts)	4.9
119	23 Apr 2024	Wind Dir	S
119	23 Apr 2024	Water Color	Green
119	23 Apr 2024	Wave Height Low (ft)	2
119	23 Apr 2024	Wave Period (sec)	11
119	23 Apr 2024	Sea State	Calm
119	23 Apr 2024	High Tide (ft)	5.33
119	23 Apr 2024	High Tide Time	2124
119	23 Apr 2024	Low Tide (ft)	-0.19
119	23 Apr 2024	Low Tide Time	336
119	23 Apr 2024	Comments	
124	02 Apr 2024	Depth (m)	9
124	02 Apr 2024	Arrive Time	1144
124	02 Apr 2024	Depart Time	1148
124	02 Apr 2024	Air Temp (C)	15.3
124	02 Apr 2024	Weather	Clear
124	02 Apr 2024	Visibility (mi)	7
124	02 Apr 2024	Wind Speed (kts)	7.4
124	02 Apr 2024	Wind Dir	W
124	02 Apr 2024	Water Color	Brownish-Green
124	02 Apr 2024	Wave Height Low (ft)	2
124	02 Apr 2024	Wave Period (sec)	10
124	02 Apr 2024	Sea State	Calm
124	02 Apr 2024	High Tide (ft)	4.32
124	02 Apr 2024	High Tide Time	312
124	02 Apr 2024	Low Tide (ft)	-0.09
124	02 Apr 2024	Low Tide Time	1136
124	02 Apr 2024	Comments	
124	09 Apr 2024	Depth (m)	10
124	09 Apr 2024	Arrive Time	1122
124	09 Apr 2024	Depart Time	1126
124	09 Apr 2024	Air Temp (C)	15.2
124	09 Apr 2024	Weather	Clear
124	09 Apr 2024	Visibility (mi)	8
124	09 Apr 2024	Wind Speed (kts)	6.4
124	09 Apr 2024	Wind Dir	NW
124	09 Apr 2024	Water Color	Brownish-Green
124	09 Apr 2024	Wave Height Low (ft)	3
124	09 Apr 2024	Wave Period (sec)	6
124	09 Apr 2024	Sea State	Calm
124	09 Apr 2024	High Tide (ft)	6.06
124	09 Apr 2024	High Tide Time	2218
124	09 Apr 2024	Low Tide (ft)	-1
124	09 Apr 2024	Low Tide Time	418
124	09 Apr 2024	Comments	Wobbles went away for several stations but have come back. This cast may benefit from O2 outlier removal.
124	16 Apr 2024	Depth (m)	10
124	16 Apr 2024	Arrive Time	1108
124	16 Apr 2024	Depart Time	1110
124	16 Apr 2024	Air Temp (C)	14.8
124	16 Apr 2024	Weather	Clear
124	16 Apr 2024	Visibility (mi)	16
124	16 Apr 2024	Wind Speed (kts)	7

Station	Date	Parameter	Value
I24	16 Apr 2024	Wind Dir	NW
I24	16 Apr 2024	Water Color	Greenish-Brown
I24	16 Apr 2024	Wave Height Low (ft)	3
I24	16 Apr 2024	Wave Period (sec)	12
I24	16 Apr 2024	Sea State	Calm
I24	16 Apr 2024	High Tide (ft)	3.93
I24	16 Apr 2024	High Tide Time	406
I24	16 Apr 2024	Low Tide (ft)	0.05
I24	16 Apr 2024	Low Tide Time	1154
I24	16 Apr 2024	Comments	
I24	23 Apr 2024	Depth (m)	10
I24	23 Apr 2024	Arrive Time	1056
I24	23 Apr 2024	Depart Time	1100
I24	23 Apr 2024	Air Temp (C)	14.9
I24	23 Apr 2024	Weather	Overcast
I24	23 Apr 2024	Visibility (mi)	7
I24	23 Apr 2024	Wind Speed (kts)	5.9
I24	23 Apr 2024	Wind Dir	S
I24	23 Apr 2024	Water Color	Brownish-Green
I24	23 Apr 2024	Wave Height Low (ft)	2
I24	23 Apr 2024	Wave Period (sec)	11
I24	23 Apr 2024	Sea State	Calm
I24	23 Apr 2024	High Tide (ft)	5.33
I24	23 Apr 2024	High Tide Time	2124
I24	23 Apr 2024	Low Tide (ft)	-0.19
I24	23 Apr 2024	Low Tide Time	336
I24	23 Apr 2024	Comments	
I25	02 Apr 2024	Depth (m)	8
I25	02 Apr 2024	Arrive Time	1152
I25	02 Apr 2024	Depart Time	1155
I25	02 Apr 2024	Air Temp (C)	15.5
I25	02 Apr 2024	Weather	Clear
I25	02 Apr 2024	Visibility (mi)	7
I25	02 Apr 2024	Wind Speed (kts)	5.8
I25	02 Apr 2024	Wind Dir	W
I25	02 Apr 2024	Water Color	Brownish-Green
I25	02 Apr 2024	Wave Height Low (ft)	2
I25	02 Apr 2024	Wave Period (sec)	10
I25	02 Apr 2024	Sea State	Calm
I25	02 Apr 2024	High Tide (ft)	4.32
I25	02 Apr 2024	High Tide Time	312
I25	02 Apr 2024	Low Tide (ft)	-0.09
I25	02 Apr 2024	Low Tide Time	1136
I25	02 Apr 2024	Comments	9m depth bin unattainable due to low tide.
I25	09 Apr 2024	Depth (m)	9
I25	09 Apr 2024	Arrive Time	1128
I25	09 Apr 2024	Depart Time	1137
I25	09 Apr 2024	Air Temp (C)	15.1
I25	09 Apr 2024	Weather	Clear
I25	09 Apr 2024	Visibility (mi)	8
I25	09 Apr 2024	Wind Speed (kts)	9.8
I25	09 Apr 2024	Wind Dir	W
I25	09 Apr 2024	Water Color	Brownish-Green
I25	09 Apr 2024	Wave Height Low (ft)	3
I25	09 Apr 2024	Wave Period (sec)	6
I25	09 Apr 2024	Sea State	Calm
I25	09 Apr 2024	High Tide (ft)	6.06
I25	09 Apr 2024	High Tide Time	2218

Station	Date	Parameter	Value
I25	09 Apr 2024	Low Tide (ft)	-1
I25	09 Apr 2024	Low Tide Time	418
I25	09 Apr 2024	Comments	More wobbles. Not apparent in .asc because binning removes wobbles; but apparent in IGODS.
I25	16 Apr 2024	Depth (m)	8
I25	16 Apr 2024	Arrive Time	1115
I25	16 Apr 2024	Depart Time	1117
I25	16 Apr 2024	Air Temp (C)	14.8
I25	16 Apr 2024	Weather	Clear
I25	16 Apr 2024	Visibility (mi)	16
I25	16 Apr 2024	Wind Speed (kts)	7.5
I25	16 Apr 2024	Wind Dir	W
I25	16 Apr 2024	Water Color	Greenish-Brown
I25	16 Apr 2024	Wave Height Low (ft)	3
I25	16 Apr 2024	Wave Period (sec)	12
I25	16 Apr 2024	Sea State	Calm
I25	16 Apr 2024	High Tide (ft)	3.93
I25	16 Apr 2024	High Tide Time	406
I25	16 Apr 2024	Low Tide (ft)	0.05
I25	16 Apr 2024	Low Tide Time	1154
I25	16 Apr 2024	Comments	
I25	23 Apr 2024	Depth (m)	11
I25	23 Apr 2024	Arrive Time	1103
I25	23 Apr 2024	Depart Time	1111
I25	23 Apr 2024	Air Temp (C)	14.8
I25	23 Apr 2024	Weather	Overcast
I25	23 Apr 2024	Visibility (mi)	7
I25	23 Apr 2024	Wind Speed (kts)	5.7
I25	23 Apr 2024	Wind Dir	S
I25	23 Apr 2024	Water Color	Brownish-Green
I25	23 Apr 2024	Wave Height Low (ft)	2
I25	23 Apr 2024	Wave Period (sec)	11
I25	23 Apr 2024	Sea State	Calm
I25	23 Apr 2024	High Tide (ft)	5.33
I25	23 Apr 2024	High Tide Time	2124
I25	23 Apr 2024	Low Tide (ft)	-0.19
I25	23 Apr 2024	Low Tide Time	336
I25	23 Apr 2024	Comments	sewage-like odor.
I26	02 Apr 2024	Depth (m)	8
I26	02 Apr 2024	Arrive Time	1203
I26	02 Apr 2024	Depart Time	1215
I26	02 Apr 2024	Air Temp (C)	15.4
I26	02 Apr 2024	Weather	Clear
I26	02 Apr 2024	Visibility (mi)	7
I26	02 Apr 2024	Wind Speed (kts)	7.2
I26	02 Apr 2024	Wind Dir	W
I26	02 Apr 2024	Water Color	Brownish-Green
I26	02 Apr 2024	Wave Height Low (ft)	2
I26	02 Apr 2024	Wave Period (sec)	10
I26	02 Apr 2024	Sea State	Calm
I26	02 Apr 2024	High Tide (ft)	4.32
I26	02 Apr 2024	High Tide Time	312
I26	02 Apr 2024	Low Tide (ft)	-0.09
I26	02 Apr 2024	Low Tide Time	1136
I26	02 Apr 2024	Comments	Recast attempted due to wiggly O2 signal; but wiggles were even greater in second cast. Using data and bottle samples from cast 1.

Station	Date	Parameter	Value
I26	09 Apr 2024	Depth (m)	10
I26	09 Apr 2024	Arrive Time	1141
I26	09 Apr 2024	Depart Time	1153
I26	09 Apr 2024	Air Temp (C)	14.9
I26	09 Apr 2024	Weather	Clear
I26	09 Apr 2024	Visibility (mi)	8
I26	09 Apr 2024	Wind Speed (kts)	3.9
I26	09 Apr 2024	Wind Dir	W
I26	09 Apr 2024	Water Color	Brownish-Green
I26	09 Apr 2024	Wave Height Low (ft)	3
I26	09 Apr 2024	Wave Period (sec)	6
I26	09 Apr 2024	Sea State	Calm
I26	09 Apr 2024	High Tide (ft)	6.06
I26	09 Apr 2024	High Tide Time	2218
I26	09 Apr 2024	Low Tide (ft)	-1
I26	09 Apr 2024	Low Tide Time	418
I26	09 Apr 2024	Comments	Wobbles did not bin out in cast 1; recasting. Bacti from cast 1 niskins 2;3;4. Cast 2 had wobbles in raw but smoother upon binning.
I26	16 Apr 2024	Depth (m)	8
I26	16 Apr 2024	Arrive Time	1126
I26	16 Apr 2024	Depart Time	1127
I26	16 Apr 2024	Air Temp (C)	15
I26	16 Apr 2024	Weather	Clear
I26	16 Apr 2024	Visibility (mi)	16
I26	16 Apr 2024	Wind Speed (kts)	6.8
I26	16 Apr 2024	Wind Dir	NW
I26	16 Apr 2024	Water Color	Greenish-Brown
I26	16 Apr 2024	Wave Height Low (ft)	3
I26	16 Apr 2024	Wave Period (sec)	12
I26	16 Apr 2024	Sea State	Calm
I26	16 Apr 2024	High Tide (ft)	3.93
I26	16 Apr 2024	High Tide Time	406
I26	16 Apr 2024	Low Tide (ft)	0.05
I26	16 Apr 2024	Low Tide Time	1154
I26	16 Apr 2024	Comments	
I26	23 Apr 2024	Depth (m)	10
I26	23 Apr 2024	Arrive Time	1116
I26	23 Apr 2024	Depart Time	1126
I26	23 Apr 2024	Air Temp (C)	15.1
I26	23 Apr 2024	Weather	Overcast
I26	23 Apr 2024	Visibility (mi)	7
I26	23 Apr 2024	Wind Speed (kts)	5.8
I26	23 Apr 2024	Wind Dir	SW
I26	23 Apr 2024	Water Color	Brownish-Green
I26	23 Apr 2024	Wave Height Low (ft)	2
I26	23 Apr 2024	Wave Period (sec)	11
I26	23 Apr 2024	Sea State	Calm
I26	23 Apr 2024	High Tide (ft)	5.33
I26	23 Apr 2024	High Tide Time	2124
I26	23 Apr 2024	Low Tide (ft)	-0.19
I26	23 Apr 2024	Low Tide Time	336
I26	23 Apr 2024	Comments	
I32	02 Apr 2024	Depth (m)	9
I32	02 Apr 2024	Arrive Time	1227
I32	02 Apr 2024	Depart Time	1234
I32	02 Apr 2024	Air Temp (C)	15.5
I32	02 Apr 2024	Weather	Clear

Station	Date	Parameter	Value
I32	02 Apr 2024	Visibility (mi)	7
I32	02 Apr 2024	Wind Speed (kts)	8.3
I32	02 Apr 2024	Wind Dir	W
I32	02 Apr 2024	Water Color	Brownish-Green
I32	02 Apr 2024	Wave Height Low (ft)	2
I32	02 Apr 2024	Wave Period (sec)	10
I32	02 Apr 2024	Sea State	Calm
I32	02 Apr 2024	High Tide (ft)	4.32
I32	02 Apr 2024	High Tide Time	312
I32	02 Apr 2024	Low Tide (ft)	-0.09
I32	02 Apr 2024	Low Tide Time	1136
I32	02 Apr 2024	Comments	
I32	09 Apr 2024	Depth (m)	11
I32	09 Apr 2024	Arrive Time	1202
I32	09 Apr 2024	Depart Time	1206
I32	09 Apr 2024	Air Temp (C)	15.1
I32	09 Apr 2024	Weather	Clear
I32	09 Apr 2024	Visibility (mi)	8
I32	09 Apr 2024	Wind Speed (kts)	7.9
I32	09 Apr 2024	Wind Dir	W
I32	09 Apr 2024	Water Color	Brownish-Green
I32	09 Apr 2024	Wave Height Low (ft)	3
I32	09 Apr 2024	Wave Period (sec)	6
I32	09 Apr 2024	Sea State	Calm
I32	09 Apr 2024	High Tide (ft)	6.06
I32	09 Apr 2024	High Tide Time	2218
I32	09 Apr 2024	Low Tide (ft)	-1
I32	09 Apr 2024	Low Tide Time	418
I32	09 Apr 2024	Comments	bacti taken from niskins 1;3;4
I32	16 Apr 2024	Depth (m)	11
I32	16 Apr 2024	Arrive Time	1139
I32	16 Apr 2024	Depart Time	1140
I32	16 Apr 2024	Air Temp (C)	15.2
I32	16 Apr 2024	Weather	Clear
I32	16 Apr 2024	Visibility (mi)	16
I32	16 Apr 2024	Wind Speed (kts)	6.3
I32	16 Apr 2024	Wind Dir	NW
I32	16 Apr 2024	Water Color	Greenish-Brown
I32	16 Apr 2024	Wave Height Low (ft)	3
I32	16 Apr 2024	Wave Period (sec)	12
I32	16 Apr 2024	Sea State	Calm
I32	16 Apr 2024	High Tide (ft)	3.93
I32	16 Apr 2024	High Tide Time	406
I32	16 Apr 2024	Low Tide (ft)	0.05
I32	16 Apr 2024	Low Tide Time	1154
I32	16 Apr 2024	Comments	
I32	23 Apr 2024	Depth (m)	9
I32	23 Apr 2024	Arrive Time	1126
I32	23 Apr 2024	Depart Time	1132
I32	23 Apr 2024	Air Temp (C)	15.6
I32	23 Apr 2024	Weather	Overcast
I32	23 Apr 2024	Visibility (mi)	7
I32	23 Apr 2024	Wind Speed (kts)	1.4
I32	23 Apr 2024	Wind Dir	SE
I32	23 Apr 2024	Water Color	Green
I32	23 Apr 2024	Wave Height Low (ft)	2
I32	23 Apr 2024	Wave Period (sec)	11
I32	23 Apr 2024	Sea State	Calm

Station	Date	Parameter	Value
132	23 Apr 2024	High Tide (ft)	5.33
132	23 Apr 2024	High Tide Time	2124
132	23 Apr 2024	Low Tide (ft)	-0.19
132	23 Apr 2024	Low Tide Time	336
132	23 Apr 2024	Comments	
139	02 Apr 2024	Depth (m)	19
139	02 Apr 2024	Arrive Time	1058
139	02 Apr 2024	Depart Time	1111
139	02 Apr 2024	Air Temp (C)	15.3
139	02 Apr 2024	Weather	Clear
139	02 Apr 2024	Visibility (mi)	7
139	02 Apr 2024	Wind Speed (kts)	4.7
139	02 Apr 2024	Wind Dir	NW
139	02 Apr 2024	Water Color	Green
139	02 Apr 2024	Wave Height Low (ft)	2
139	02 Apr 2024	Wave Period (sec)	10
139	02 Apr 2024	Sea State	Calm
139	02 Apr 2024	High Tide (ft)	4.32
139	02 Apr 2024	High Tide Time	312
139	02 Apr 2024	Low Tide (ft)	-0.09
139	02 Apr 2024	Low Tide Time	1136
139	02 Apr 2024	Comments	
139	09 Apr 2024	Depth (m)	20
139	09 Apr 2024	Arrive Time	1031
139	09 Apr 2024	Depart Time	1038
139	09 Apr 2024	Air Temp (C)	14.6
139	09 Apr 2024	Weather	Clear
139	09 Apr 2024	Visibility (mi)	8
139	09 Apr 2024	Wind Speed (kts)	3.2
139	09 Apr 2024	Wind Dir	NE
139	09 Apr 2024	Water Color	Blueish-Green
139	09 Apr 2024	Wave Height Low (ft)	3
139	09 Apr 2024	Wave Period (sec)	6
139	09 Apr 2024	Sea State	Calm
139	09 Apr 2024	High Tide (ft)	6.06
139	09 Apr 2024	High Tide Time	2218
139	09 Apr 2024	Low Tide (ft)	-1
139	09 Apr 2024	Low Tide Time	418
139	09 Apr 2024	Comments	
139	16 Apr 2024	Depth (m)	3
139	16 Apr 2024	Arrive Time	1026
139	16 Apr 2024	Depart Time	1027
139	16 Apr 2024	Air Temp (C)	14.8
139	16 Apr 2024	Weather	Clear
139	16 Apr 2024	Visibility (mi)	16
139	16 Apr 2024	Wind Speed (kts)	6.2
139	16 Apr 2024	Wind Dir	NW
139	16 Apr 2024	Water Color	Greenish-Blue
139	16 Apr 2024	Wave Height Low (ft)	3
139	16 Apr 2024	Wave Period (sec)	12
139	16 Apr 2024	Sea State	Calm
139	16 Apr 2024	High Tide (ft)	3.93
139	16 Apr 2024	High Tide Time	406
139	16 Apr 2024	Low Tide (ft)	0.05
139	16 Apr 2024	Low Tide Time	1154
139	16 Apr 2024	Comments	
139	23 Apr 2024	Depth (m)	19

Station	Date	Parameter	Value
I39	23 Apr 2024	Arrive Time	1014
I39	23 Apr 2024	Depart Time	1017
I39	23 Apr 2024	Air Temp (C)	14.8
I39	23 Apr 2024	Weather	Overcast
I39	23 Apr 2024	Visibility (mi)	7
I39	23 Apr 2024	Wind Speed (kts)	4.7
I39	23 Apr 2024	Wind Dir	S
I39	23 Apr 2024	Water Color	Green
I39	23 Apr 2024	Wave Height Low (ft)	2
I39	23 Apr 2024	Wave Period (sec)	11
I39	23 Apr 2024	Sea State	Calm
I39	23 Apr 2024	High Tide (ft)	5.33
I39	23 Apr 2024	High Tide Time	2124
I39	23 Apr 2024	Low Tide (ft)	-0.19
I39	23 Apr 2024	Low Tide Time	336
I39	23 Apr 2024	Comments	
I40	02 Apr 2024	Depth (m)	9
I40	02 Apr 2024	Arrive Time	1133
I40	02 Apr 2024	Depart Time	1142
I40	02 Apr 2024	Air Temp (C)	15.4
I40	02 Apr 2024	Weather	Clear
I40	02 Apr 2024	Visibility (mi)	7
I40	02 Apr 2024	Wind Speed (kts)	10.0
I40	02 Apr 2024	Wind Dir	W
I40	02 Apr 2024	Water Color	Brownish-Green
I40	02 Apr 2024	Wave Height Low (ft)	2
I40	02 Apr 2024	Wave Period (sec)	10
I40	02 Apr 2024	Sea State	Calm
I40	02 Apr 2024	High Tide (ft)	4.32
I40	02 Apr 2024	High Tide Time	312
I40	02 Apr 2024	Low Tide (ft)	-0.09
I40	02 Apr 2024	Low Tide Time	1136
I40	02 Apr 2024	Comments	
I40	09 Apr 2024	Depth (m)	10
I40	09 Apr 2024	Arrive Time	1107
I40	09 Apr 2024	Depart Time	1121
I40	09 Apr 2024	Air Temp (C)	14.8
I40	09 Apr 2024	Weather	Clear
I40	09 Apr 2024	Visibility (mi)	8
I40	09 Apr 2024	Wind Speed (kts)	9.9
I40	09 Apr 2024	Wind Dir	NW
I40	09 Apr 2024	Water Color	Brownish-Green
I40	09 Apr 2024	Wave Height Low (ft)	3
I40	09 Apr 2024	Wave Period (sec)	6
I40	09 Apr 2024	Sea State	Calm
I40	09 Apr 2024	High Tide (ft)	6.06
I40	09 Apr 2024	High Tide Time	2218
I40	09 Apr 2024	Low Tide (ft)	-1
I40	09 Apr 2024	Low Tide Time	418
I40	09 Apr 2024	Comments	
I40	16 Apr 2024	Depth (m)	9
I40	16 Apr 2024	Arrive Time	1100
I40	16 Apr 2024	Depart Time	1102
I40	16 Apr 2024	Air Temp (C)	14.8
I40	16 Apr 2024	Weather	Clear
I40	16 Apr 2024	Visibility (mi)	16
I40	16 Apr 2024	Wind Speed (kts)	7.9
I40	16 Apr 2024	Wind Dir	NW

Station	Date	Parameter	Value
I40	16 Apr 2024	Water Color	Greenish-Brown
I40	16 Apr 2024	Wave Height Low (ft)	3
I40	16 Apr 2024	Wave Period (sec)	12
I40	16 Apr 2024	Sea State	Calm
I40	16 Apr 2024	High Tide (ft)	3.93
I40	16 Apr 2024	High Tide Time	406
I40	16 Apr 2024	Low Tide (ft)	0.05
I40	16 Apr 2024	Low Tide Time	1154
I40	16 Apr 2024	Comments	
I40	23 Apr 2024	Depth (m)	10
I40	23 Apr 2024	Arrive Time	1048
I40	23 Apr 2024	Depart Time	1056
I40	23 Apr 2024	Air Temp (C)	14.8
I40	23 Apr 2024	Weather	Overcast
I40	23 Apr 2024	Visibility (mi)	7
I40	23 Apr 2024	Wind Speed (kts)	6.3
I40	23 Apr 2024	Wind Dir	S
I40	23 Apr 2024	Water Color	Brownish-Green
I40	23 Apr 2024	Wave Height Low (ft)	2
I40	23 Apr 2024	Wave Period (sec)	11
I40	23 Apr 2024	Sea State	Calm
I40	23 Apr 2024	High Tide (ft)	5.33
I40	23 Apr 2024	High Tide Time	2124
I40	23 Apr 2024	Low Tide (ft)	-0.19
I40	23 Apr 2024	Low Tide Time	336
I40	23 Apr 2024	Comments	Sewage-like odor

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	02 Apr 2024	1	14.48	58.50	8.1	33.16	7.7	24.7	0.63
I19	02 Apr 2024	2	14.34	57.54	8.2	33.18	7.7	24.7	0.71
I19	02 Apr 2024	3	14.25	57.37	8.2	33.18	7.7	24.7	1.10
I19	02 Apr 2024	4	14.21	56.54	8.2	33.18	7.7	24.7	1.84
I19	02 Apr 2024	5	14.20	59.95	8.2	33.19	7.7	24.7	2.10
I19	02 Apr 2024	6	14.19	63.00	8.2	33.20	7.7	24.8	2.32
I19	02 Apr 2024	7	14.19	63.45	8.1	33.20	7.7	24.8	2.36
I19	02 Apr 2024	8	14.17	59.33	8.1	33.20	7.7	24.8	2.23
I19	02 Apr 2024	9	14.16	58.60	8.0	33.21	7.7	24.8	2.32
I19	02 Apr 2024	10	14.16	58.43	7.8	33.20	7.7	24.8	2.36
I19	09 Apr 2024	1	13.48	33.90	6.9	33.38	7.9	25.0	0.36
I19	09 Apr 2024	2	13.26	33.69	6.2	33.42	7.9	25.1	0.42
I19	09 Apr 2024	3	12.18	40.70	5.2	33.53	7.8	25.4	0.59
I19	09 Apr 2024	4	11.99	44.40	4.9	33.51	7.8	25.4	0.74
I19	09 Apr 2024	5	11.93	51.02	4.7	33.52	7.7	25.4	0.89
I19	09 Apr 2024	6	11.90	40.60	4.6	33.52	7.7	25.5	1.02
I19	09 Apr 2024	7	11.80	36.72	4.5	33.53	7.7	25.5	1.00
I19	09 Apr 2024	8	11.78	36.33	4.5	33.53	7.7	25.5	1.02
I19	09 Apr 2024	9	11.78	27.23	4.5	33.53	7.7	25.5	1.10
I19	09 Apr 2024	10	11.79	23.00	4.4	33.53	7.7	25.5	1.17
I19	16 Apr 2024	1	14.53	56.28	7.5	33.12	8.0	24.6	0.82
I19	16 Apr 2024	2	14.28	57.39	7.4	33.23	8.0	24.8	0.99
I19	16 Apr 2024	3	13.72	56.63	7.3	33.39	8.0	25.0	1.15
I19	16 Apr 2024	4	13.50	56.90	7.2	33.40	8.0	25.1	1.79
I19	16 Apr 2024	5	13.49	63.43	7.0	33.39	8.0	25.0	1.95
I19	16 Apr 2024	6	13.41	66.67	6.8	33.40	8.0	25.1	1.82
I19	16 Apr 2024	7	13.30	72.44	6.5	33.39	8.0	25.1	1.77
I19	16 Apr 2024	8	13.12	79.67	6.2	33.42	7.9	25.1	2.07
I19	16 Apr 2024	9	12.87	58.36	5.7	33.43	7.9	25.2	2.34
I19	16 Apr 2024	10	12.84	33.19	5.6	33.43	7.9	25.2	2.39
I19	23 Apr 2024	1	16.06	68.05	8.1	33.27	8.1	24.4	4.48
I19	23 Apr 2024	2	16.02	67.72	8.1	33.28	8.1	24.4	5.28
I19	23 Apr 2024	3	15.96	67.27	7.9	33.29	8.1	24.4	5.67
I19	23 Apr 2024	4	15.45	67.19	7.5	33.36	8.1	24.6	4.64
I19	23 Apr 2024	5	14.98	73.10	7.2	33.38	8.1	24.7	3.54
I19	23 Apr 2024	6	14.66	81.82	7.0	33.40	8.1	24.8	2.85
I19	23 Apr 2024	7	14.19	85.60	6.8	33.41	8.1	24.9	2.47
I19	23 Apr 2024	8	13.67	87.30	6.5	33.44	8.0	25.0	2.28
I19	23 Apr 2024	9	13.40	88.01	6.1	33.43	8.0	25.1	2.18
I19	23 Apr 2024	10	13.21	83.91	5.5	33.45	8.0	25.2	1.97
I24	02 Apr 2024	1	14.65	57.32	8.1	33.12	7.7	24.6	1.15
I24	02 Apr 2024	2	14.52	56.05	8.0	33.15	7.7	24.6	1.41
I24	02 Apr 2024	3	14.49	55.57	7.6	33.15	7.7	24.7	1.56
I24	02 Apr 2024	4	14.44	61.71	7.5	33.16	7.7	24.7	1.78
I24	02 Apr 2024	5	14.35	71.15	7.6	33.17	7.7	24.7	2.05
I24	02 Apr 2024	6	14.20	69.40	7.7	33.18	7.7	24.7	1.84
I24	02 Apr 2024	7	14.19	66.81	7.8	33.18	7.7	24.7	1.75
I24	02 Apr 2024	8	14.18	66.19	7.7	33.18	7.7	24.7	1.61
I24	02 Apr 2024	9	14.18	58.18	7.4	33.18	7.7	24.7	1.69
I24	09 Apr 2024	1	14.87	63.54	7.0	33.03	8.0	24.5	0.26

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I24	09 Apr 2024	2	14.74	63.47	7.0	33.04	7.9	24.5	0.33
I24	09 Apr 2024	3	14.38	62.49	7.2	33.05	8.0	24.6	0.93
I24	09 Apr 2024	4	14.38	62.06	7.3	33.08	8.0	24.6	1.83
I24	09 Apr 2024	5	14.38	62.35	7.3	33.13	8.0	24.7	3.06
I24	09 Apr 2024	6	13.86	65.77	6.6	33.30	8.0	24.9	2.75
I24	09 Apr 2024	7	13.24	71.26	5.7	33.41	7.8	25.1	1.61
I24	09 Apr 2024	8	12.32	67.48	5.3	33.50	7.8	25.4	1.20
I24	09 Apr 2024	9	12.24	52.55	5.5	33.49	7.7	25.4	1.06
I24	09 Apr 2024	10	12.20	37.02	4.4	33.49	7.7	25.4	1.07
I24	16 Apr 2024	1	16.08	80.61	8.6	33.31	8.2	24.4	0.94
I24	16 Apr 2024	2	16.13	80.03	8.6	33.31	8.2	24.4	0.90
I24	16 Apr 2024	3	16.10	80.20	8.6	33.31	8.2	24.4	0.94
I24	16 Apr 2024	4	15.89	78.26	8.6	33.31	8.2	24.5	1.35
I24	16 Apr 2024	5	15.85	77.46	8.4	33.31	8.2	24.5	1.57
I24	16 Apr 2024	6	15.10	76.12	8.1	33.35	8.2	24.7	1.83
I24	16 Apr 2024	7	14.68	75.20	7.8	33.34	8.1	24.8	1.81
I24	16 Apr 2024	8	14.07	79.23	7.4	33.38	8.1	24.9	1.90
I24	16 Apr 2024	9	13.81	79.16	7.2	33.38	8.1	25.0	1.94
I24	23 Apr 2024	1	16.15	56.76	8.6	32.94	8.2	24.1	6.79
I24	23 Apr 2024	2	16.10	56.37	8.3	32.95	8.2	24.2	8.09
I24	23 Apr 2024	3	15.94	59.86	7.7	33.05	8.1	24.3	6.77
I24	23 Apr 2024	4	15.76	68.84	7.2	33.22	8.1	24.4	5.52
I24	23 Apr 2024	5	14.77	75.07	6.8	33.38	8.1	24.8	3.94
I24	23 Apr 2024	6	14.61	82.27	6.6	33.35	8.0	24.8	3.00
I24	23 Apr 2024	7	13.91	86.28	6.2	33.45	8.0	25.0	2.62
I24	23 Apr 2024	8	13.25	86.89	5.6	33.45	8.0	25.1	2.18
I24	23 Apr 2024	9	13.18	81.16	5.1	33.44	7.9	25.1	1.90
I24	23 Apr 2024	10	12.77	73.33	4.8	33.47	7.9	25.3	1.79
I25	02 Apr 2024	1	15.28	65.13	8.2	33.13	7.8	24.5	0.58
I25	02 Apr 2024	2	15.08	61.86	8.2	33.15	7.8	24.5	0.76
I25	02 Apr 2024	3	14.83	53.88	8.3	33.14	7.8	24.6	1.49
I25	02 Apr 2024	4	14.69	57.63	8.5	33.14	7.8	24.6	2.16
I25	02 Apr 2024	5	14.61	69.50	8.3	33.15	7.8	24.6	2.70
I25	02 Apr 2024	6	14.58	74.82	8.1	33.15	7.7	24.6	2.66
I25	02 Apr 2024	7	14.37	74.64	7.6	33.17	7.7	24.7	2.23
I25	02 Apr 2024	8	14.25	69.98	7.7	33.17	7.7	24.7	2.01
I25	09 Apr 2024	1	14.84	57.55	7.2	32.99	7.9	24.5	0.33
I25	09 Apr 2024	2	14.53	57.50	7.2	33.02	7.9	24.5	0.42
I25	09 Apr 2024	3	14.36	57.01	7.4	33.00	8.0	24.6	1.23
I25	09 Apr 2024	4	14.35	57.40	7.6	33.06	8.0	24.6	3.40
I25	09 Apr 2024	5	14.22	60.11	7.3	33.21	8.0	24.8	3.86
I25	09 Apr 2024	6	13.46	62.10	6.2	33.41	7.9	25.1	2.21
I25	09 Apr 2024	7	12.53	68.16	6.1	33.48	7.8	25.3	1.13
I25	09 Apr 2024	8	11.90	79.49	5.5	33.53	7.8	25.5	0.84
I25	09 Apr 2024	9	11.72	84.87	4.8	33.53	7.7	25.5	0.67
I25	16 Apr 2024	1	15.40	80.95	8.3	33.32	8.1	24.6	0.63
I25	16 Apr 2024	2	15.23	82.43	8.2	33.33	8.1	24.6	0.68
I25	16 Apr 2024	3	14.42	84.45	8.0	33.36	8.1	24.8	0.76
I25	16 Apr 2024	4	14.17	87.61	7.8	33.34	8.1	24.9	0.93
I25	16 Apr 2024	5	14.01	85.77	7.4	33.36	8.1	24.9	1.05
I25	16 Apr 2024	6	13.45	84.87	6.9	33.40	8.0	25.1	1.20
I25	16 Apr 2024	7	13.40	84.65	6.6	33.39	8.0	25.1	1.38
I25	16 Apr 2024	8	13.08	83.03	6.4	33.42	8.0	25.2	1.71
I25	23 Apr 2024	1	16.14	44.57	8.3	32.26	8.1	23.6	7.50
I25	23 Apr 2024	2	16.15	45.50	8.1	33.01	8.1	24.2	8.29

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I25	23 Apr 2024	3	15.99	53.71	7.7	33.10	8.1	24.3	7.51
I25	23 Apr 2024	4	15.49	69.11	7.3	33.33	8.1	24.6	5.59
I25	23 Apr 2024	5	15.18	77.91	7.0	33.36	8.1	24.7	4.29
I25	23 Apr 2024	6	14.90	81.07	6.7	33.37	8.1	24.7	3.60
I25	23 Apr 2024	7	13.95	80.78	6.1	33.41	8.0	25.0	2.95
I25	23 Apr 2024	8	13.60	76.67	5.8	33.41	8.0	25.0	2.50
I25	23 Apr 2024	9	13.24	79.53	5.4	33.46	8.0	25.2	2.35
I26	02 Apr 2024	1	15.01	79.12	9.1	33.15	7.8	24.5	1.04
I26	02 Apr 2024	2	14.96	78.52	8.9	33.16	7.8	24.6	1.16
I26	02 Apr 2024	3	14.64	79.49	8.6	33.18	7.8	24.6	1.59
I26	02 Apr 2024	4	14.58	78.08	8.3	33.16	7.7	24.6	1.93
I26	02 Apr 2024	5	14.50	67.16	7.9	33.17	7.7	24.7	2.48
I26	02 Apr 2024	6	14.43	55.69	7.8	33.17	7.7	24.7	3.26
I26	02 Apr 2024	7	14.45	53.31	8.8	33.17	7.7	24.7	3.47
I26	02 Apr 2024	8	14.43	51.49	7.0	33.17	7.7	24.7	3.19
I26	02 Apr 2024	9	14.43	50.09	7.7	33.17	7.7	24.7	3.14
I26	09 Apr 2024	1	14.30	70.11	7.2	33.37	7.9	24.9	0.52
I26	09 Apr 2024	2	14.48	69.74	7.2	33.36	7.9	24.8	0.41
I26	09 Apr 2024	3	14.52	70.73	7.2	33.37	7.9	24.8	0.36
I26	09 Apr 2024	4	14.00	70.02	7.0	33.40	7.9	24.9	0.79
I26	09 Apr 2024	5	13.77	69.08	6.9	33.38	7.9	25.0	2.04
I26	09 Apr 2024	6	13.46	68.98	6.4	33.42	7.9	25.1	2.03
I26	09 Apr 2024	7	12.99	73.67	5.9	33.45	7.8	25.2	1.28
I26	09 Apr 2024	8	12.41	81.94	5.8	33.49	7.8	25.3	0.77
I26	09 Apr 2024	9	11.70	87.53	5.0	33.56	7.7	25.5	0.56
I26	16 Apr 2024	1	14.86	80.76	8.1	33.33	8.1	24.7	0.69
I26	16 Apr 2024	2	14.72	80.77	7.8	33.35	8.1	24.8	0.70
I26	16 Apr 2024	3	13.62	81.28	7.2	33.41	8.1	25.0	0.65
I26	16 Apr 2024	4	13.32	85.44	6.6	33.41	8.0	25.1	0.70
I26	16 Apr 2024	5	12.84	87.75	6.2	33.44	8.0	25.2	1.04
I26	16 Apr 2024	6	12.91	85.47	6.0	33.42	7.9	25.2	1.35
I26	16 Apr 2024	7	12.76	83.28	5.9	33.44	7.9	25.2	1.66
I26	16 Apr 2024	8	12.76	82.02	5.8	33.44	7.9	25.2	1.65
I26	23 Apr 2024	1	16.14	53.66	8.1	32.90	8.1	24.1	4.63
I26	23 Apr 2024	2	16.08	57.61	8.1	33.09	8.1	24.3	5.12
I26	23 Apr 2024	3	16.13	63.74	8.1	33.20	8.1	24.3	5.36
I26	23 Apr 2024	4	16.09	67.15	8.1	33.30	8.1	24.4	5.37
I26	23 Apr 2024	5	15.93	72.90	7.7	33.38	8.2	24.5	4.70
I26	23 Apr 2024	6	15.26	80.04	7.3	33.39	8.1	24.7	3.68
I26	23 Apr 2024	7	14.50	82.38	6.7	33.43	8.1	24.9	3.21
I26	23 Apr 2024	8	12.88	83.58	6.4	33.48	8.0	25.2	2.91
I26	23 Apr 2024	9	12.80	89.72	5.9	33.46	8.0	25.2	2.36
I32	02 Apr 2024	1	15.28	66.84	8.7	33.11	7.8	24.5	0.75
I32	02 Apr 2024	2	15.08	66.51	8.7	33.12	7.8	24.5	0.90
I32	02 Apr 2024	3	14.66	61.16	8.6	33.14	7.8	24.6	1.62
I32	02 Apr 2024	4	14.49	54.73	8.5	33.13	7.8	24.6	3.05
I32	02 Apr 2024	5	14.42	50.73	8.2	33.14	7.8	24.7	3.92
I32	02 Apr 2024	6	14.40	48.59	8.0	33.14	7.8	24.7	4.23
I32	02 Apr 2024	7	14.39	46.24	7.9	33.15	7.7	24.7	4.57
I32	02 Apr 2024	8	14.35	43.57	7.6	33.16	7.7	24.7	4.50
I32	02 Apr 2024	9	14.33	38.17	7.5	33.17	7.7	24.7	4.76
I32	09 Apr 2024	1	13.85	68.46	7.0	33.42	7.9	25.0	0.29
I32	09 Apr 2024	2	13.52	67.45	6.6	33.43	7.9	25.1	0.34
I32	09 Apr 2024	3	12.73	61.93	5.8	33.47	7.8	25.3	0.43
I32	09 Apr 2024	4	12.60	63.64	5.6	33.47	7.8	25.3	0.51

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I32	09 Apr 2024	5	12.15	70.83	5.4	33.50	7.8	25.4	0.52
I32	09 Apr 2024	6	11.97	81.49	5.2	33.52	7.8	25.4	0.56
I32	09 Apr 2024	7	11.68	84.35	5.0	33.55	7.7	25.5	0.71
I32	09 Apr 2024	8	11.69	85.09	5.0	33.55	7.7	25.5	0.75
I32	09 Apr 2024	9	11.64	84.54	4.8	33.55	7.7	25.5	0.73
I32	09 Apr 2024	10	11.64	79.88	4.8	33.55	7.7	25.5	0.66
I32	16 Apr 2024	1	15.20	58.50	8.1	33.33	8.1	24.6	1.02
I32	16 Apr 2024	2	14.91	57.25	8.1	33.34	8.1	24.7	1.23
I32	16 Apr 2024	3	14.43	53.49	7.6	33.36	8.1	24.8	1.70
I32	16 Apr 2024	4	13.85	53.36	7.1	33.36	8.0	25.0	2.14
I32	16 Apr 2024	5	13.43	61.74	6.6	33.40	8.0	25.1	2.23
I32	16 Apr 2024	6	13.28	66.31	6.3	33.39	8.0	25.1	2.15
I32	16 Apr 2024	7	13.21	72.37	6.2	33.41	8.0	25.1	1.99
I32	16 Apr 2024	8	13.05	67.76	6.1	33.41	7.9	25.2	2.14
I32	16 Apr 2024	9	13.01	53.07	6.0	33.41	7.9	25.2	2.20
I32	23 Apr 2024	1	16.55	61.95	8.8	33.21	8.2	24.2	4.81
I32	23 Apr 2024	2	16.54	61.90	8.8	33.24	8.2	24.3	5.68
I32	23 Apr 2024	3	16.53	61.81	8.7	33.30	8.2	24.3	7.47
I32	23 Apr 2024	4	16.48	63.37	8.5	33.30	8.2	24.3	7.84
I32	23 Apr 2024	5	16.40	65.64	8.2	33.32	8.2	24.4	6.58
I32	23 Apr 2024	6	16.19	70.55	7.5	33.36	8.2	24.4	4.94
I32	23 Apr 2024	7	14.47	74.35	6.5	33.49	8.1	24.9	3.88
I32	23 Apr 2024	8	13.61	77.33	5.8	33.45	8.0	25.1	2.85
I32	23 Apr 2024	9	13.00	80.72	5.2	33.48	7.9	25.2	2.33
I32	23 Apr 2024	10	12.93	68.47	4.8	33.47	7.9	25.2	2.20
I39	02 Apr 2024	1	15.19	84.82	8.7	33.16	7.7	24.5	0.67
I39	02 Apr 2024	2	15.01	85.17	8.7	33.17	7.7	24.6	0.68
I39	02 Apr 2024	3	14.79	83.82	8.8	33.16	7.7	24.6	0.92
I39	02 Apr 2024	4	14.75	82.14	8.7	33.16	7.7	24.6	1.39
I39	02 Apr 2024	5	14.67	82.58	8.5	33.17	7.7	24.6	1.47
I39	02 Apr 2024	6	14.48	82.54	8.3	33.19	7.7	24.7	1.69
I39	02 Apr 2024	7	14.35	80.03	8.2	33.19	7.7	24.7	2.14
I39	02 Apr 2024	8	14.32	75.08	8.2	33.20	7.7	24.7	2.43
I39	02 Apr 2024	9	14.29	74.47	8.1	33.20	7.7	24.7	2.67
I39	02 Apr 2024	10	14.28	76.48	8.1	33.20	7.7	24.7	2.81
I39	02 Apr 2024	11	14.27	76.56	8.1	33.21	7.7	24.7	2.85
I39	02 Apr 2024	12	14.26	76.51	8.1	33.21	7.7	24.7	2.66
I39	02 Apr 2024	13	14.25	77.26	8.1	33.20	7.7	24.7	2.39
I39	02 Apr 2024	14	14.24	77.05	8.1	33.20	7.7	24.8	2.82
I39	02 Apr 2024	15	14.21	76.73	8.0	33.20	7.7	24.8	2.47
I39	02 Apr 2024	16	14.18	76.06	9.8	33.20	7.6	24.8	2.31
I39	02 Apr 2024	17	14.17	75.38	7.3	33.20	7.6	24.8	2.25
I39	02 Apr 2024	18	14.16	73.84	7.8	33.20	7.6	24.8	1.95
I39	09 Apr 2024	1	14.64	84.57	8.0	33.27	8.1	24.7	0.88
I39	09 Apr 2024	2	14.42	83.63	7.8	33.30	8.0	24.8	1.02
I39	09 Apr 2024	3	14.27	83.48	7.7	33.31	8.0	24.8	1.24
I39	09 Apr 2024	4	14.24	83.42	7.6	33.31	8.0	24.8	1.58
I39	09 Apr 2024	5	14.17	83.27	7.5	33.32	8.0	24.9	2.08
I39	09 Apr 2024	6	14.03	83.06	7.4	33.33	8.0	24.9	2.09
I39	09 Apr 2024	7	13.98	84.40	7.3	33.33	8.0	24.9	2.03
I39	09 Apr 2024	8	13.91	84.96	7.3	33.34	8.0	24.9	2.03
I39	09 Apr 2024	9	13.87	85.37	7.3	33.34	8.0	24.9	1.88
I39	09 Apr 2024	10	13.87	86.00	7.3	33.34	8.0	24.9	1.77
I39	09 Apr 2024	11	13.82	86.37	7.2	33.35	8.0	24.9	1.99
I39	09 Apr 2024	12	13.68	86.76	7.0	33.36	8.0	25.0	1.84
I39	09 Apr 2024	13	13.55	87.41	6.9	33.37	7.9	25.0	1.44
I39	09 Apr 2024	14	13.43	87.66	6.8	33.39	7.9	25.1	1.30

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I39	09 Apr 2024	15	13.19	88.51	6.6	33.41	7.9	25.1	1.24
I39	09 Apr 2024	16	12.85	89.47	6.1	33.45	7.9	25.2	0.99
I39	09 Apr 2024	17	11.99	90.27	5.6	33.56	7.8	25.5	0.96
I39	09 Apr 2024	18	11.63	91.88	5.4	33.57	7.7	25.5	0.72
I39	16 Apr 2024	1	15.52	85.94	8.9	33.30	8.2	24.6	0.93
I39	16 Apr 2024	2	15.50	86.10	8.9	33.30	8.2	24.6	0.95
I39	16 Apr 2024	3	15.49	86.32	8.8	33.30	8.2	24.6	1.01
I39	16 Apr 2024	4	15.04	86.48	8.6	33.33	8.2	24.7	1.19
I39	16 Apr 2024	5	14.38	87.74	8.4	33.34	8.2	24.8	1.42
I39	16 Apr 2024	6	13.98	89.30	8.2	33.34	8.1	24.9	1.71
I39	16 Apr 2024	7	13.90	89.58	8.0	33.33	8.1	24.9	1.95
I39	16 Apr 2024	8	13.76	89.22	7.8	33.34	8.1	25.0	2.45
I39	16 Apr 2024	9	13.64	89.21	7.5	33.34	8.1	25.0	3.01
I39	16 Apr 2024	10	13.23	89.66	7.1	33.38	8.1	25.1	2.73
I39	16 Apr 2024	11	12.90	91.12	6.5	33.41	8.0	25.2	2.39
I39	16 Apr 2024	12	12.73	90.41	6.1	33.43	8.0	25.2	2.32
I39	16 Apr 2024	13	12.56	89.58	5.9	33.44	7.9	25.3	2.03
I39	16 Apr 2024	14	12.46	89.04	5.7	33.45	7.9	25.3	1.68
I39	16 Apr 2024	15	12.43	89.07	5.6	33.45	7.9	25.3	1.51
I39	16 Apr 2024	16	12.39	89.30	5.5	33.46	7.9	25.3	1.69
I39	16 Apr 2024	17	12.35	89.14	5.4	33.46	7.9	25.3	1.61
I39	16 Apr 2024	18	12.33	89.04	5.3	33.46	7.9	25.3	1.30
I39	23 Apr 2024	1	16.02	62.92	8.3	33.32	8.2	24.4	5.18
I39	23 Apr 2024	2	16.00	69.23	8.3	33.33	8.2	24.5	5.37
I39	23 Apr 2024	3	15.96	73.36	8.3	33.37	8.2	24.5	5.18
I39	23 Apr 2024	4	15.92	78.21	8.3	33.36	8.2	24.5	4.85
I39	23 Apr 2024	5	15.85	81.41	8.3	33.36	8.2	24.5	4.35
I39	23 Apr 2024	6	15.77	84.18	8.4	33.35	8.2	24.5	3.44
I39	23 Apr 2024	7	15.73	87.09	8.4	33.34	8.2	24.5	2.97
I39	23 Apr 2024	8	15.68	88.59	8.5	33.34	8.2	24.5	2.64
I39	23 Apr 2024	9	15.65	89.07	8.5	33.34	8.2	24.5	2.48
I39	23 Apr 2024	10	15.60	89.38	8.6	33.34	8.2	24.6	2.37
I39	23 Apr 2024	11	15.59	89.84	8.6	33.34	8.2	24.6	2.24
I39	23 Apr 2024	12	15.60	90.10	8.5	33.34	8.2	24.6	2.23
I39	23 Apr 2024	13	15.42	90.31	8.2	33.36	8.2	24.6	2.18
I39	23 Apr 2024	14	14.96	90.40	7.9	33.39	8.2	24.7	2.40
I39	23 Apr 2024	15	14.36	90.06	7.4	33.42	8.1	24.9	2.48
I39	23 Apr 2024	16	13.62	90.00	6.9	33.45	8.1	25.1	2.35
I39	23 Apr 2024	17	12.41	91.48	6.0	33.53	8.0	25.4	2.26
I39	23 Apr 2024	18	11.97	92.73	5.1	33.53	7.9	25.5	1.60
I40	02 Apr 2024	1	14.66	55.75	7.9	33.03	7.7	24.5	0.93
I40	02 Apr 2024	2	14.38	56.89	8.1	33.13	7.7	24.7	1.15
I40	02 Apr 2024	3	14.24	59.23	8.2	33.15	7.7	24.7	1.37
I40	02 Apr 2024	4	14.21	62.18	8.1	33.17	7.7	24.7	1.43
I40	02 Apr 2024	5	14.21	63.71	8.0	33.17	7.7	24.7	1.75
I40	02 Apr 2024	6	14.23	63.35	7.8	33.17	7.7	24.7	1.78
I40	02 Apr 2024	7	14.20	60.45	7.6	33.18	7.7	24.7	2.02
I40	02 Apr 2024	8	14.19	52.08	7.2	33.18	7.7	24.7	2.58
I40	02 Apr 2024	9	14.18	40.00	6.9	33.18	7.6	24.7	3.09
I40	09 Apr 2024	1	14.40	63.86	7.6	33.34	8.0	24.8	0.35
I40	09 Apr 2024	2	14.05	62.70	7.0	33.35	8.0	24.9	0.44
I40	09 Apr 2024	3	13.41	65.30	6.5	33.40	8.0	25.1	0.52
I40	09 Apr 2024	4	12.99	77.91	6.2	33.43	7.9	25.2	0.56
I40	09 Apr 2024	5	12.44	82.16	5.7	33.47	7.9	25.3	0.72
I40	09 Apr 2024	6	12.24	83.66	5.3	33.48	7.8	25.4	0.92
I40	09 Apr 2024	7	12.05	77.21	4.9	33.51	7.8	25.4	0.85
I40	09 Apr 2024	8	11.87	67.54	4.7	33.53	7.8	25.5	0.81

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I40	09 Apr 2024	9	11.78	57.95	4.6	33.53	7.7	25.5	0.90
I40	09 Apr 2024	10	11.73	44.79	4.6	33.53	7.7	25.5	1.09
I40	16 Apr 2024	1	15.46	62.76	7.9	33.34	8.1	24.6	0.69
I40	16 Apr 2024	2	14.99	61.38	7.6	33.36	8.1	24.7	1.08
I40	16 Apr 2024	3	14.49	49.06	7.3	33.36	8.0	24.8	1.74
I40	16 Apr 2024	4	14.64	46.97	7.0	33.34	8.0	24.8	1.95
I40	16 Apr 2024	5	13.89	54.30	6.4	33.39	8.0	25.0	1.79
I40	16 Apr 2024	6	13.97	64.36	6.2	33.36	8.0	24.9	1.72
I40	16 Apr 2024	7	13.65	53.16	6.0	33.38	8.0	25.0	1.82
I40	16 Apr 2024	8	13.36	50.80	5.6	33.41	7.9	25.1	1.73
I40	16 Apr 2024	9	13.09	45.66	5.3	33.41	7.9	25.1	1.67
I40	23 Apr 2024	1	16.23	58.40	8.6	33.17	8.2	24.3	8.64
I40	23 Apr 2024	2	16.33	57.84	8.6	33.23	8.2	24.3	8.57
I40	23 Apr 2024	3	16.39	63.27	8.5	33.29	8.2	24.3	7.94
I40	23 Apr 2024	4	16.28	67.25	8.2	33.29	8.2	24.4	6.69
I40	23 Apr 2024	5	15.82	72.11	7.8	33.29	8.1	24.5	5.09
I40	23 Apr 2024	6	15.48	73.89	7.4	33.30	8.1	24.6	4.06
I40	23 Apr 2024	7	15.00	75.01	7.1	33.36	8.1	24.7	3.47
I40	23 Apr 2024	8	14.72	77.69	6.6	33.36	8.1	24.8	3.12
I40	23 Apr 2024	9	13.61	72.75	6.1	33.45	8.0	25.1	2.65
I40	23 Apr 2024	10	13.70	72.59	5.8	33.39	8.0	25.0	2.30

NA = not available

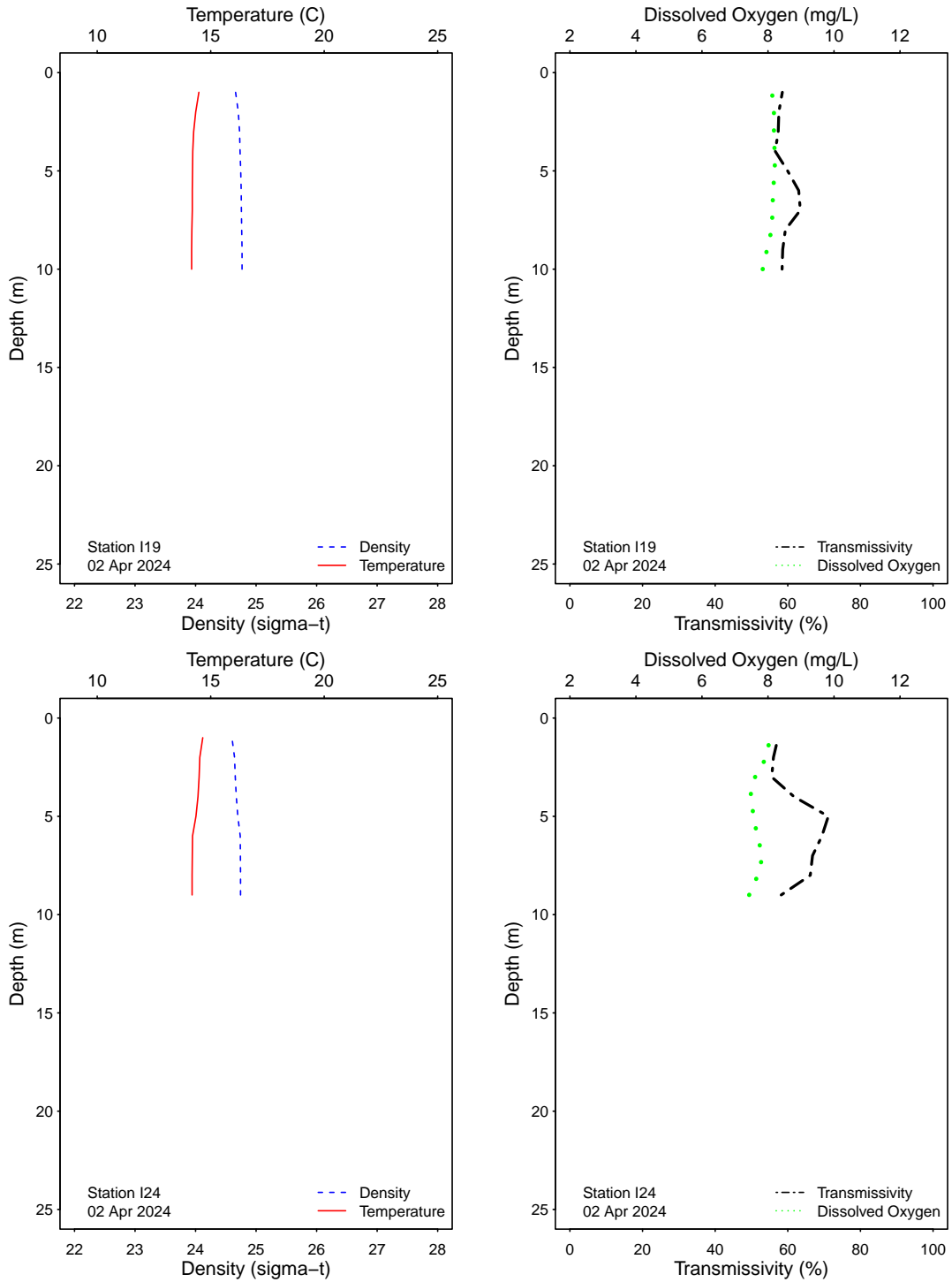


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

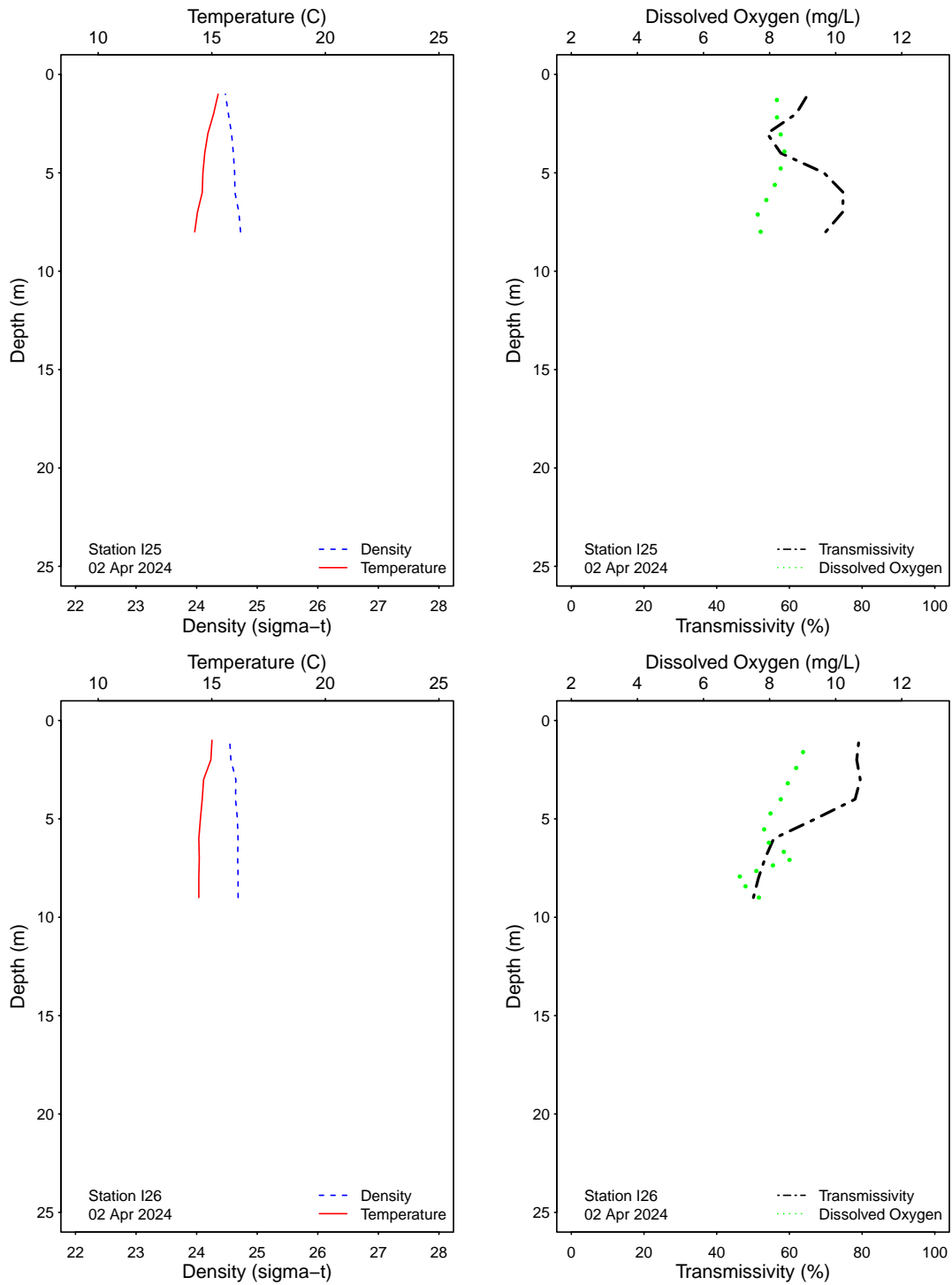


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

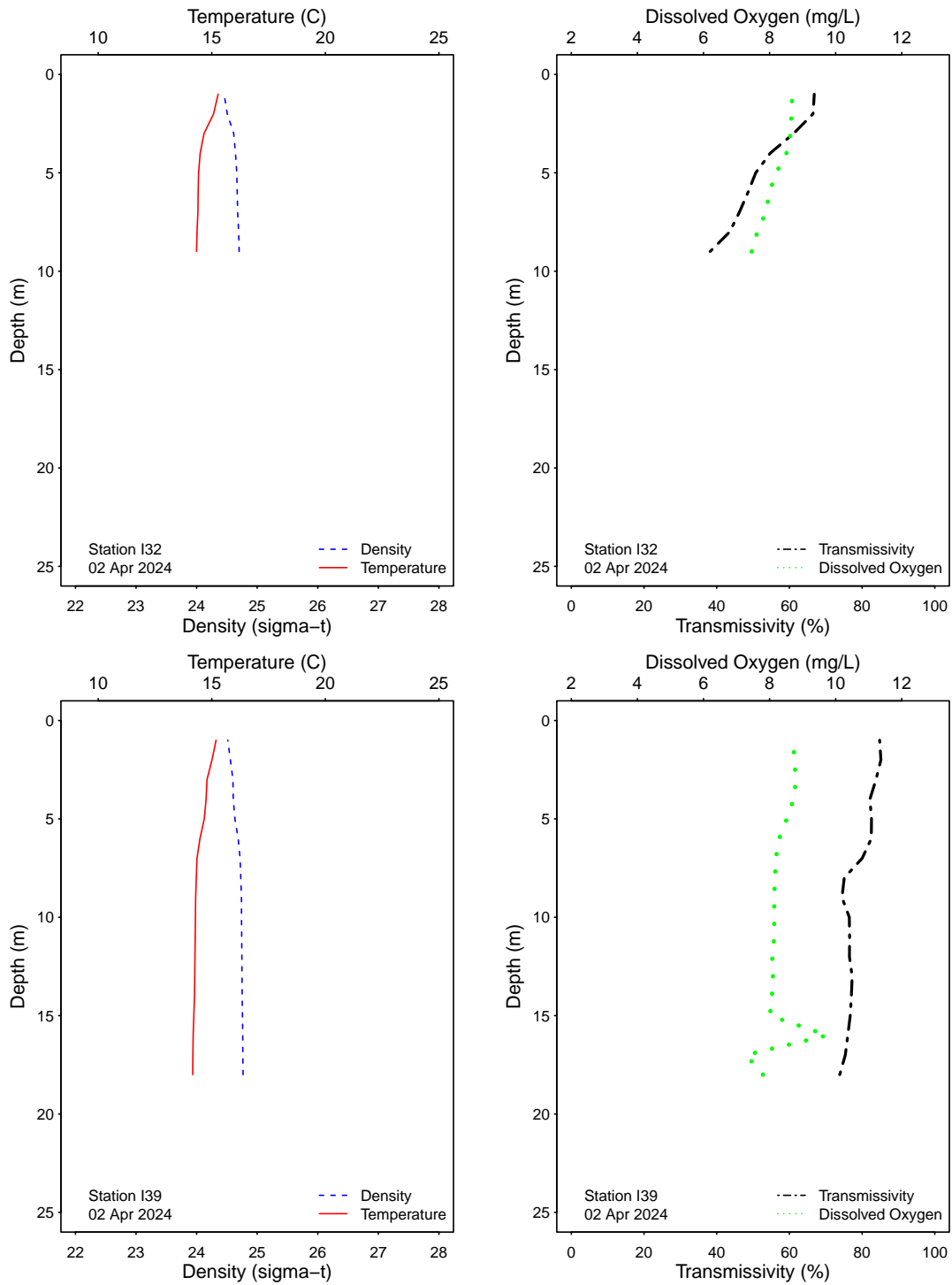


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

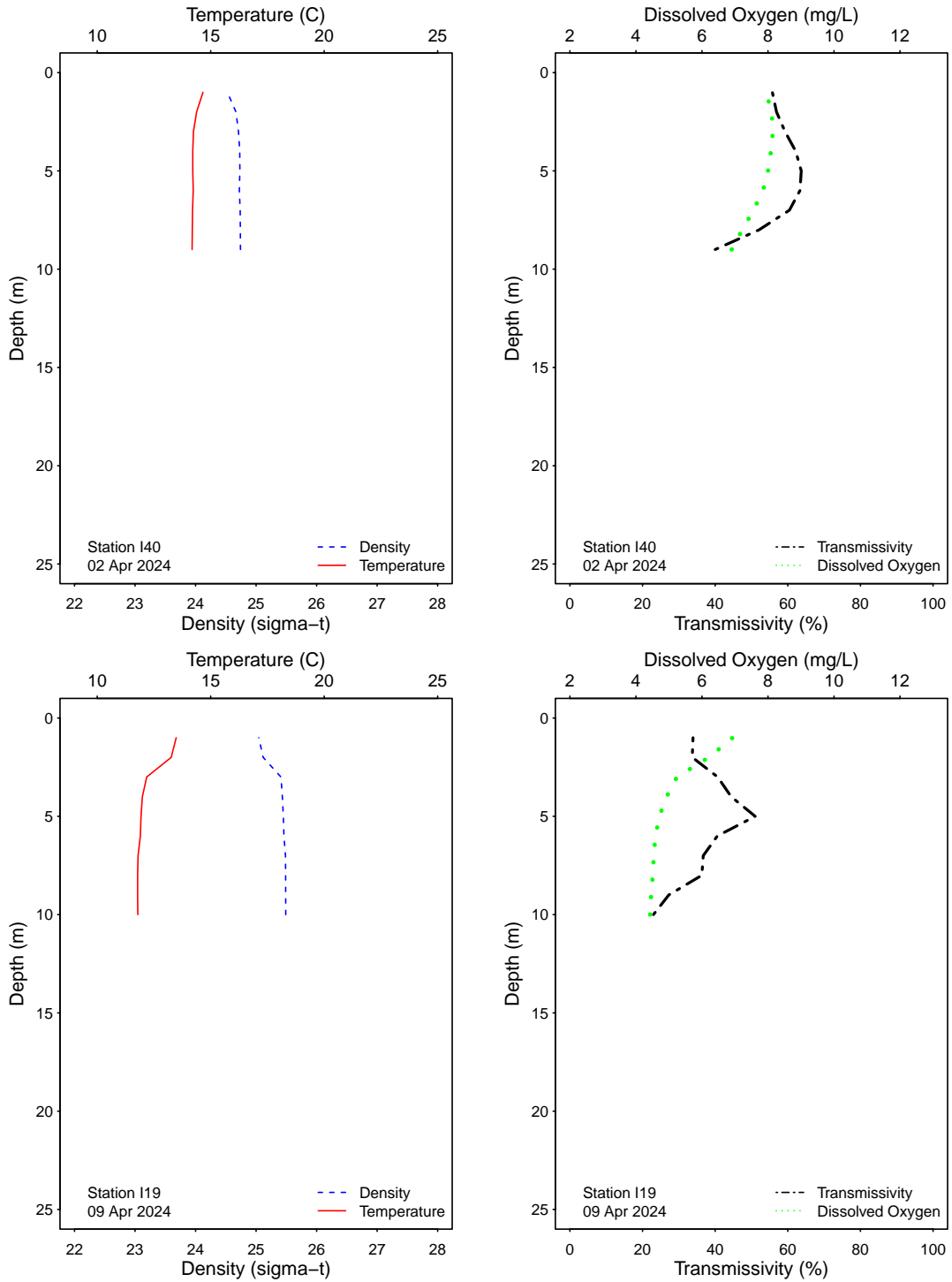


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

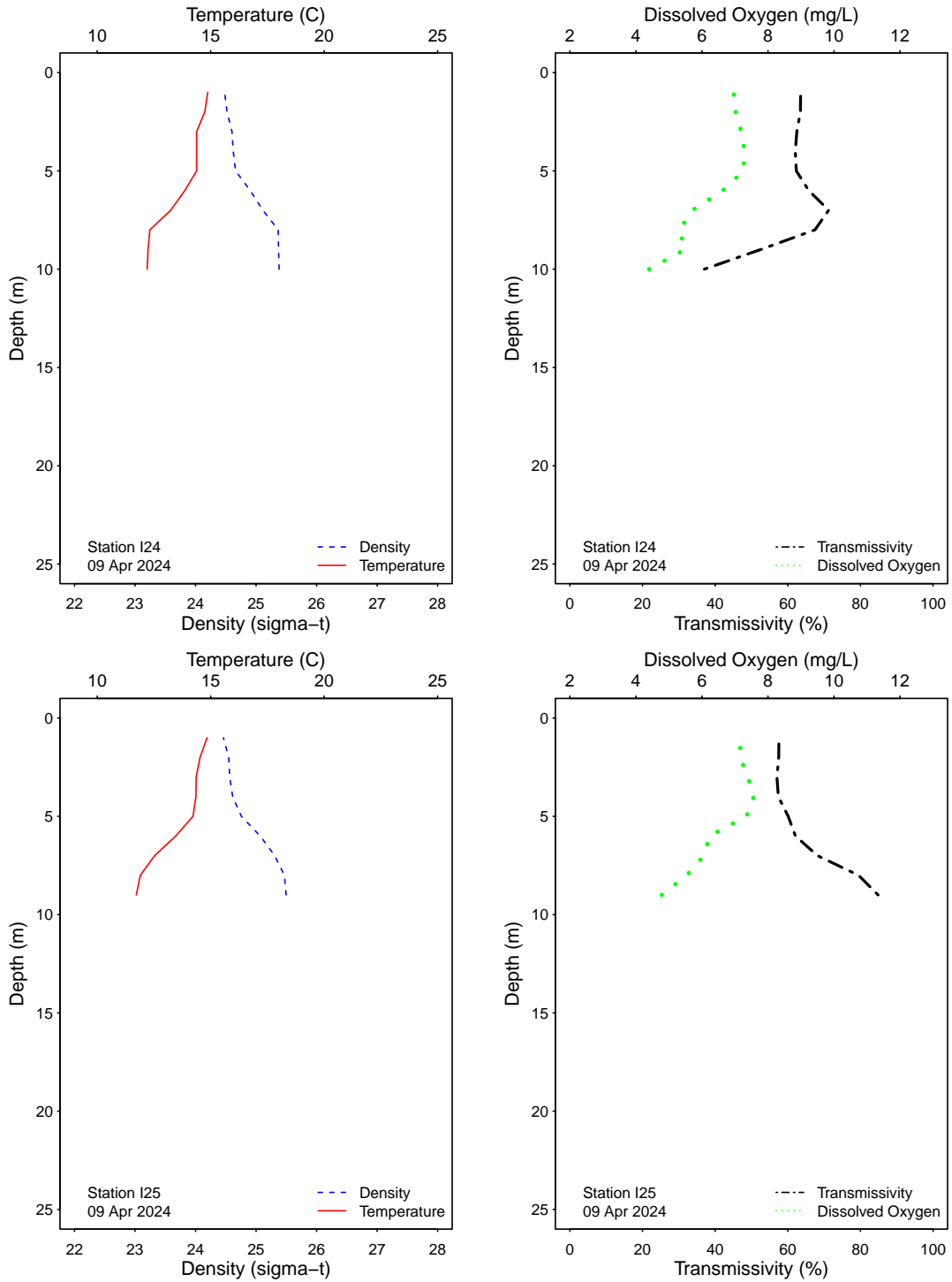


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

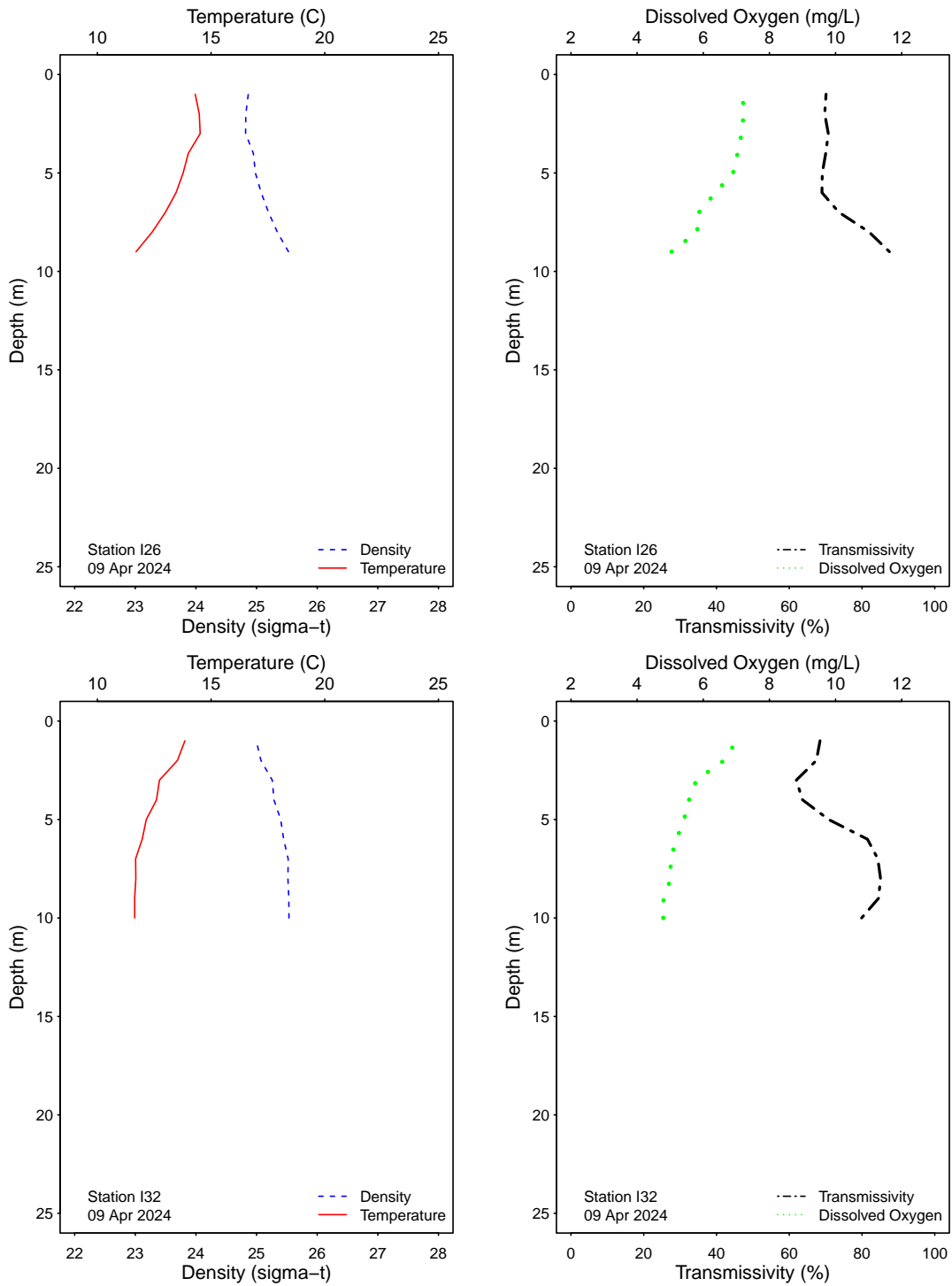


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

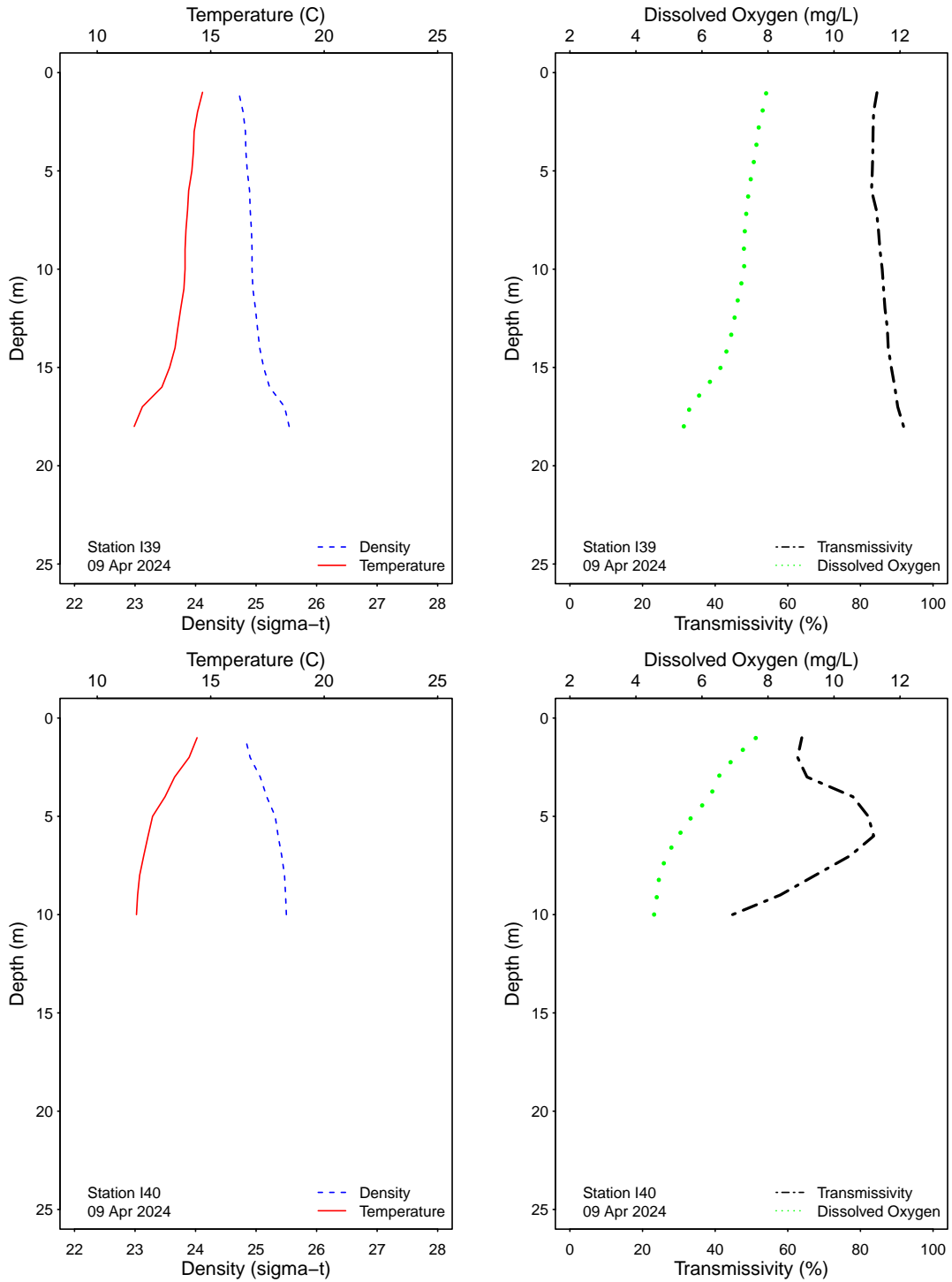


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

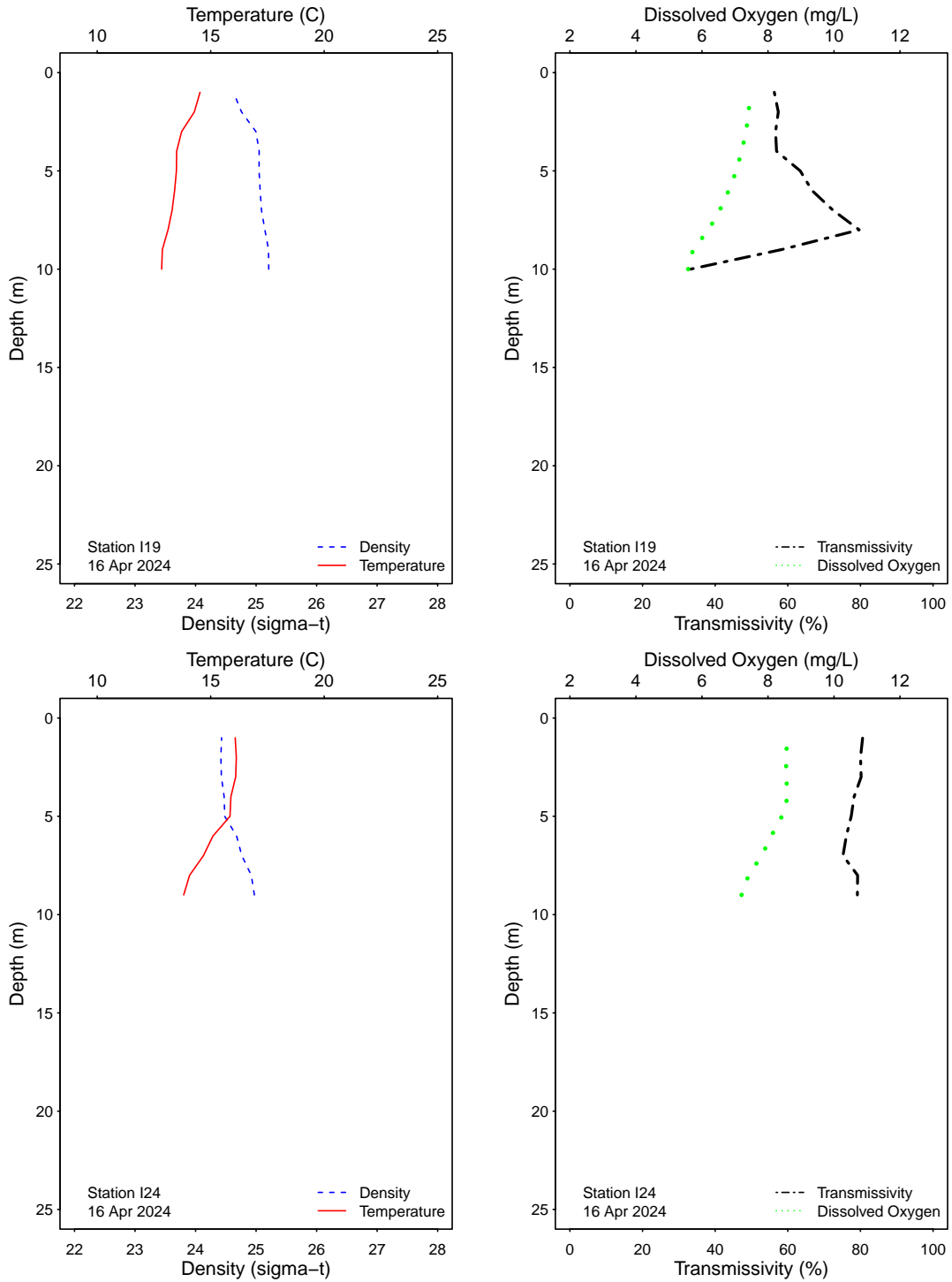


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

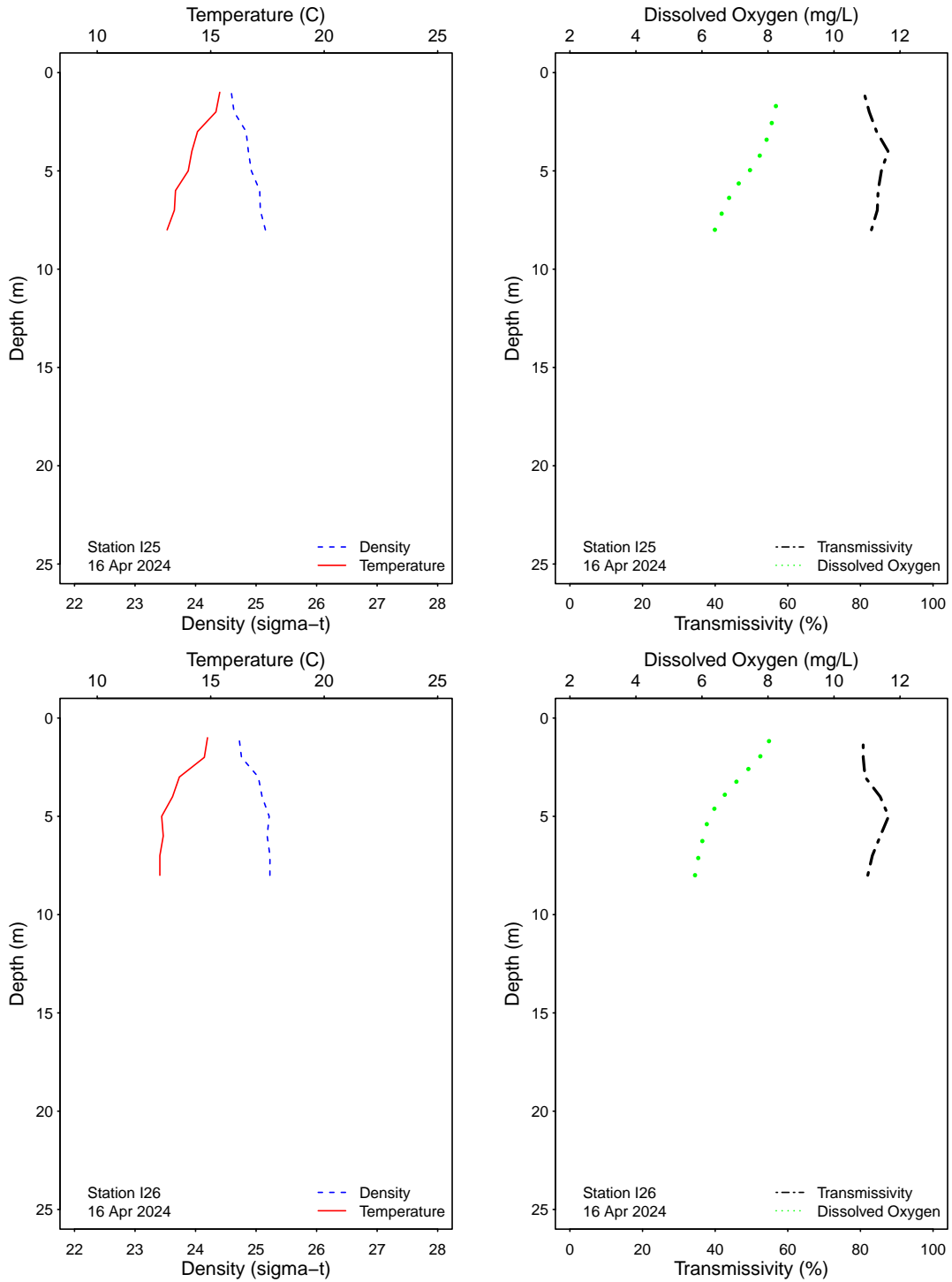


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

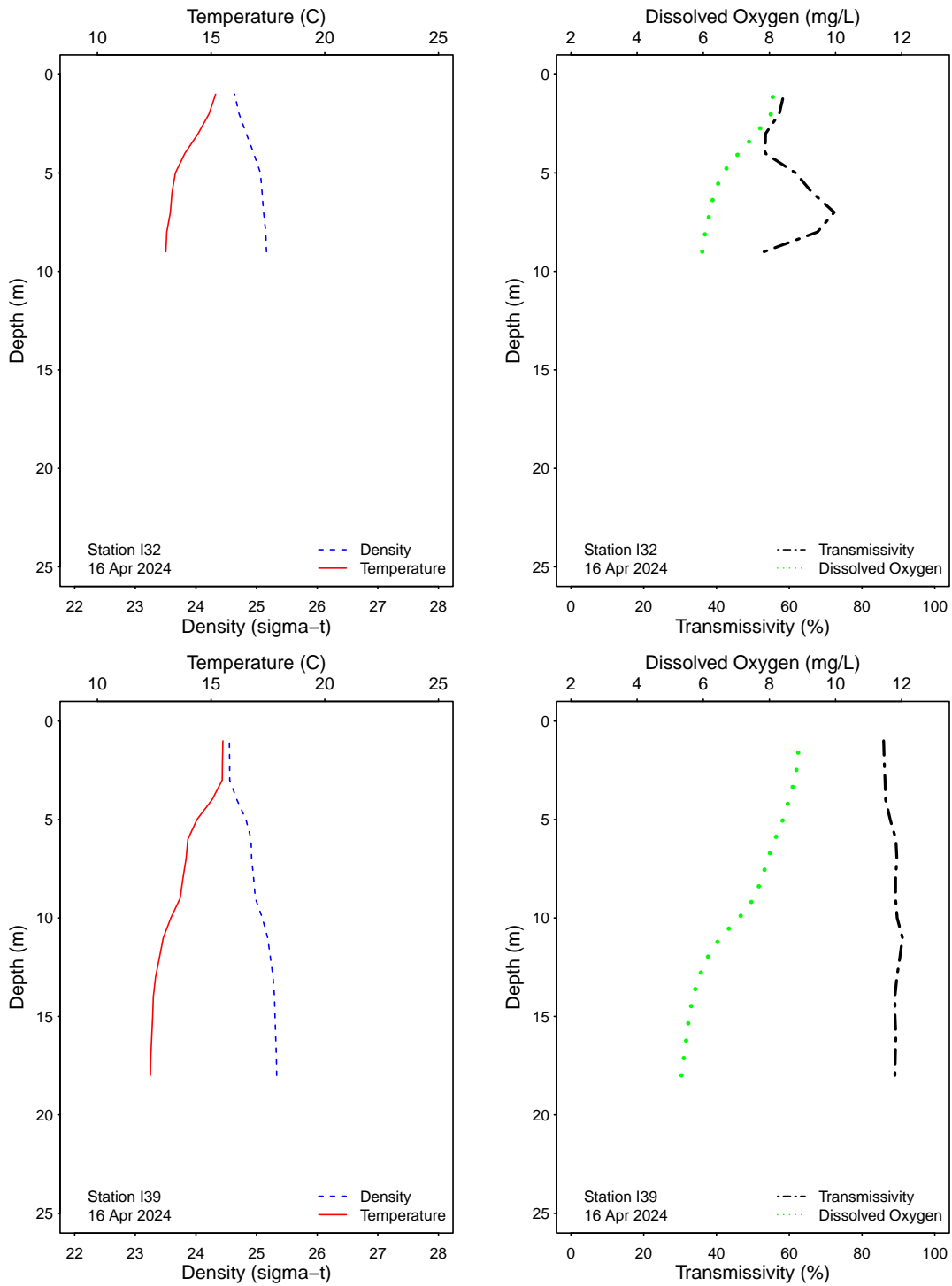


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

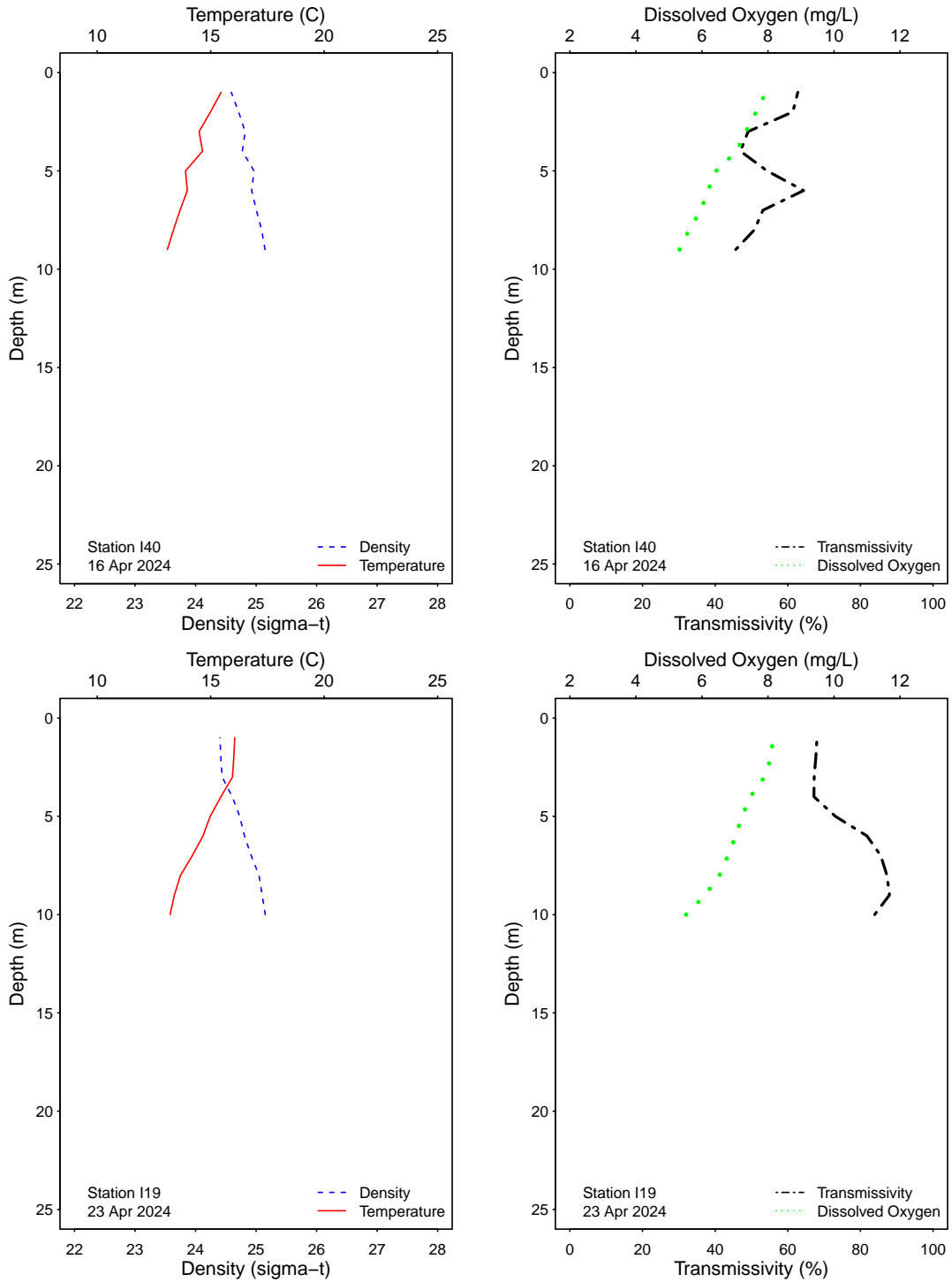


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

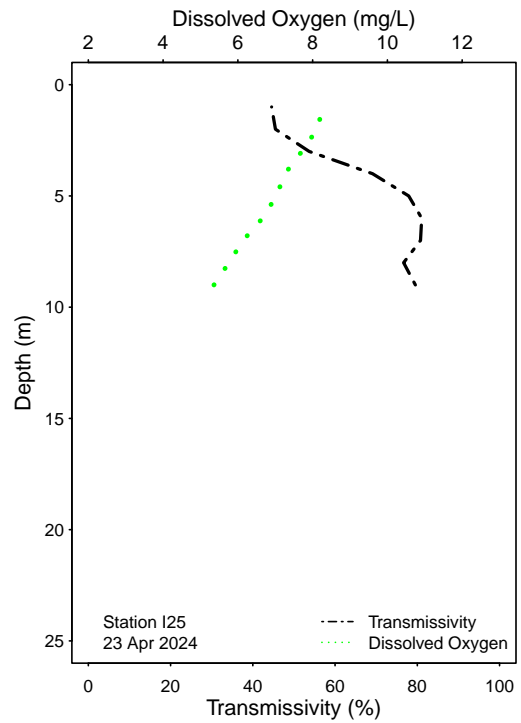
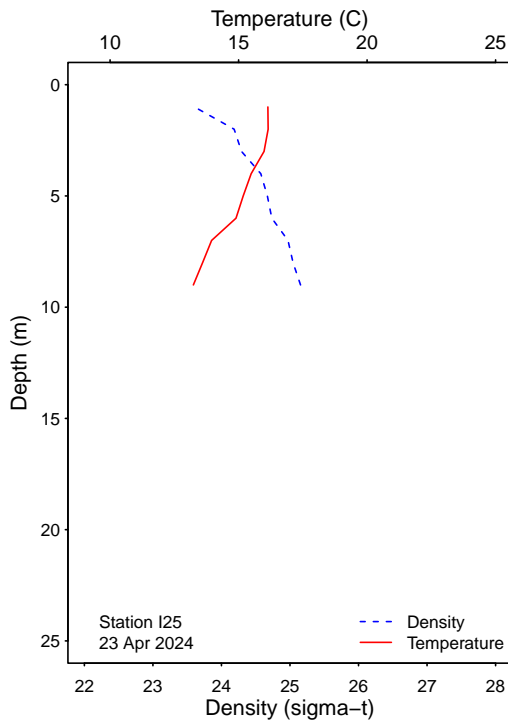
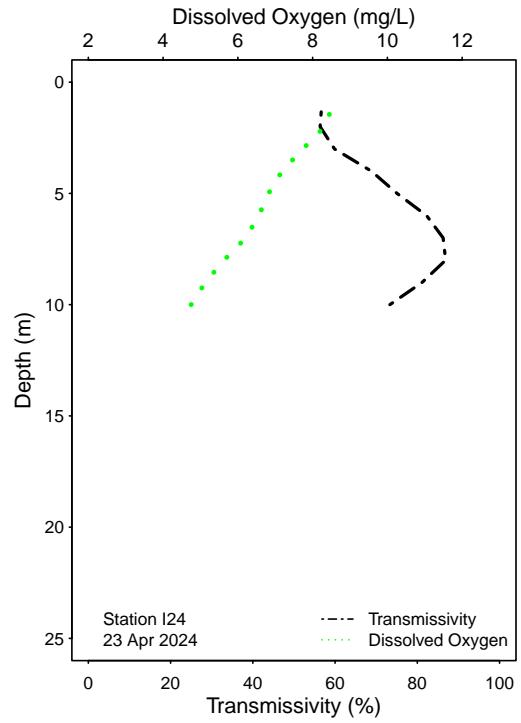
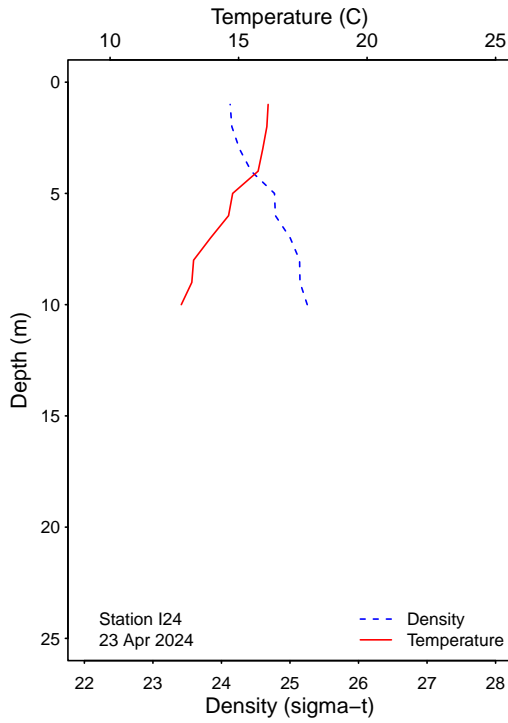


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

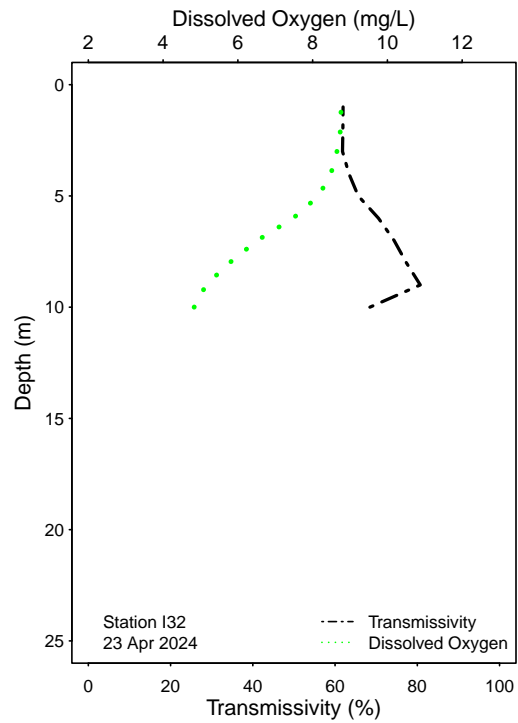
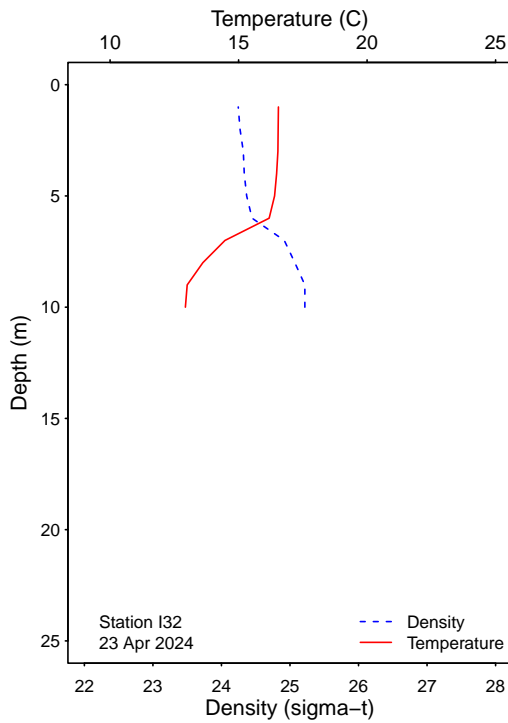
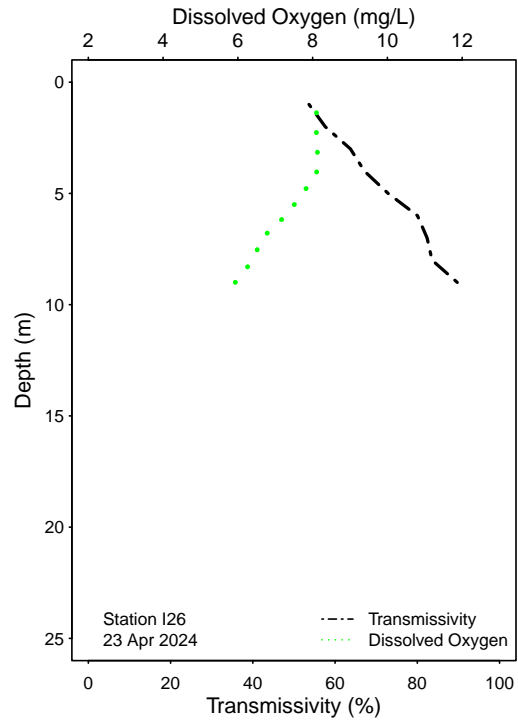
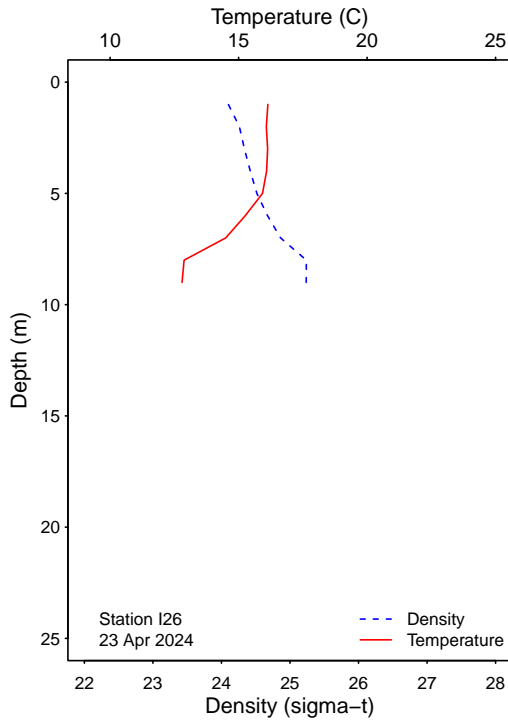


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

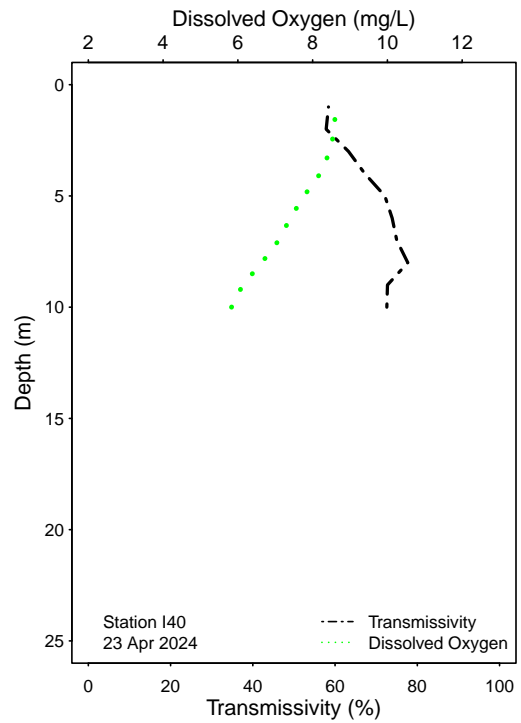
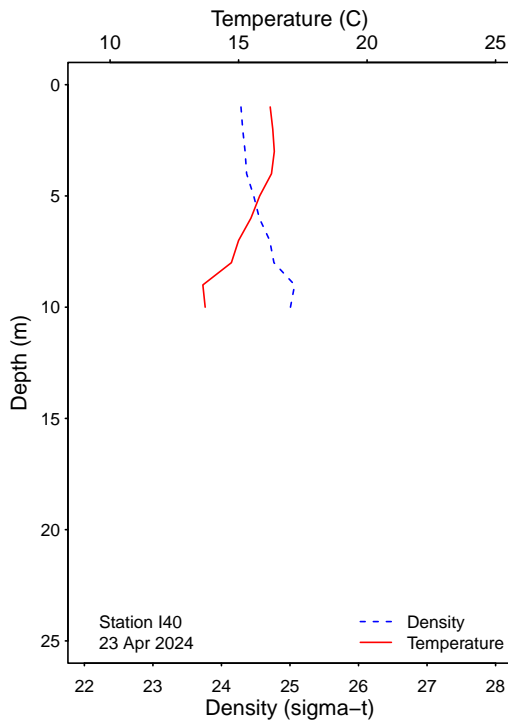
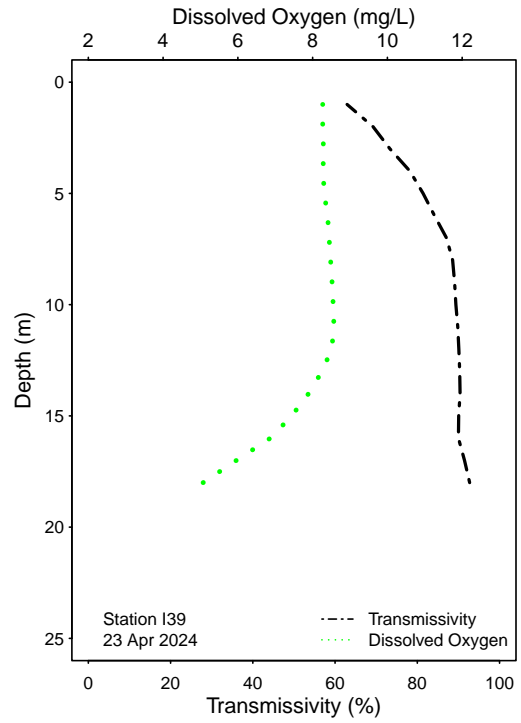
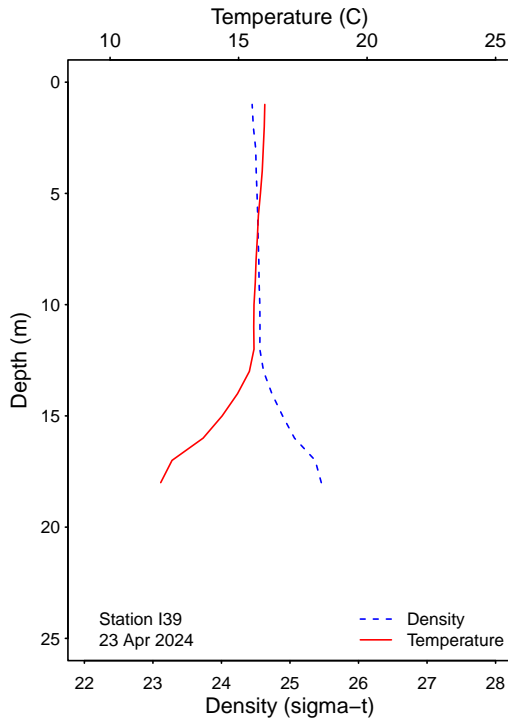


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

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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	02 Apr 2024	6	JF,BS,KA,KT/	LAB DUPLICATE	860	62	30
I19	09 Apr 2024	6	BS,KT,KA/KA	LAB DUPLICATE	3800	180	80
I19	16 Apr 2024	6	KA,ADG,JF,KT	LAB DUPLICATE	1500	280	36
I19	23 Apr 2024	6	KA,KT,BS,JF/	LAB DUPLICATE	8	6	2
I40	02 Apr 2024	6	JF,BS,KA,KT/	LAB DUPLICATE	11000	460	160
I40	09 Apr 2024	6	BS,KT,KA/KA	LAB DUPLICATE	9600	100	120
I40	16 Apr 2024	6	KA,ADG,JF,KT	LAB DUPLICATE	620	38	28
I40	23 Apr 2024	6	KA,KT,BS,JF/	LAB DUPLICATE	960	180	94
S12	02 Apr 2024		KA,KT/KT	LAB DUPLICATE	1500	60	40
S12	09 Apr 2024		KA,KT/KA	LAB DUPLICATE	320	40	2
S12	16 Apr 2024		KA, JF/KT	LAB DUPLICATE	6	8	6
S12	23 Apr 2024		KA,JF/KA	LAB DUPLICATE	16000	12000	5000

ns = not sampled

ND = no data

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