

SOUTH BAY OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT

SOUTH BAY WATER RECLAMATION PLANT

NPDES Permit No. CA0109045
SDRWQCB Order No. R9-2013-0006

JUNE 2020

Environmental Monitoring and Technical Services
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July 31, 2020

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 June 2020 Monthly Receiving Waters Monitoring Report for the South Bay Ocean Outfall, South Bay Water Reclamation Plant as required per Order No. R9-2013-0006 as amended by Order Nos. R9-2014-0071 and R9-2017-0023, 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. R9-2014-0009 as amended by Order Nos. R9-2014-0094, R9-2017-0024, R9-2019-0012, 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

RK/rg

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. R9-2013-0006 as amended by Order Nos. R9-2014-0071 and R9-2017-0023, 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 four times during the month 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.

The seven kelp stations are sampled on a weekly basis during the month. 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, Seasoftware, 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 monthly 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 four 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 chromomorphpic 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, suspended solids, and oil and grease concentrations 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 geometric mean and single sample maximum water-contact standards specified in the California Ocean Plan (Ocean Plan). The seven standards are defined as follows:

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

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

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.

Single Sample Maximums:

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

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 2020 Quality Assurance Report, which will be completed in March 2021.

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 June, five of the eight shore stations located north of the border were out of compliance with California Ocean Plan (Ocean Plan) water contact standards on one or more days as follows:
 - The 30-day geometric mean standards for total and fecal coliform were exceeded at stations S5 and S11.
 - The 30-day geometric mean standard for *Enterococcus* was exceeded at stations S4, S5, S6, S10, and S11.
 - The single sample maximum (SSM) standards for total and fecal coliform were exceeded at stations S5, S6, and S11.

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

- The SSM standard for *Enterococcus* was exceeded at stations S5, S6, S11, and S12.
- The SSM standard that states total coliform densities shall not exceed 1000 CFU/100 mL when the fecal:total ratio exceeds 0.1 was exceeded at stations S5, S6, S11, and S12.
- Per permit requirements, resamples were collected in response to these SSM exceedances (see Table 2.8 for details).
- Although the Ocean Plan standards do not apply to these stations, bacteria densities exceeded one or more benchmark levels (i.e., total coliforms >10,000 CFU/100mL; fecal coliforms >400 CFU/100 mL; *Enterococcus* >104 CFU/100 mL; total >1000 CFU/100 mL & F:T ratio >0.1) in the seawater samples collected from stations S0, S2, and S3 on one or more days during June.
- Notable observations included a sewage-like odor at stations S4, S5, S10, and S11 on one or more days during June.
- 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 June 2, 9, 16, 23, and 30.
 - During June, each of the seven kelp bed stations was in compliance with various Ocean Plan water contact standards.
 - Water column temperatures ranged from 11.25 to 19.58°C. The difference between surface and bottom waters ranged from 1.26 to 6.76°C.
 - Concentrations of chlorophyll *a* ranged from 0.56 to 9.97 µg/L at the kelp bed stations.
- Nothing of sewage origin was observed at any of these kelp stations.



TABLES AND FIGURES

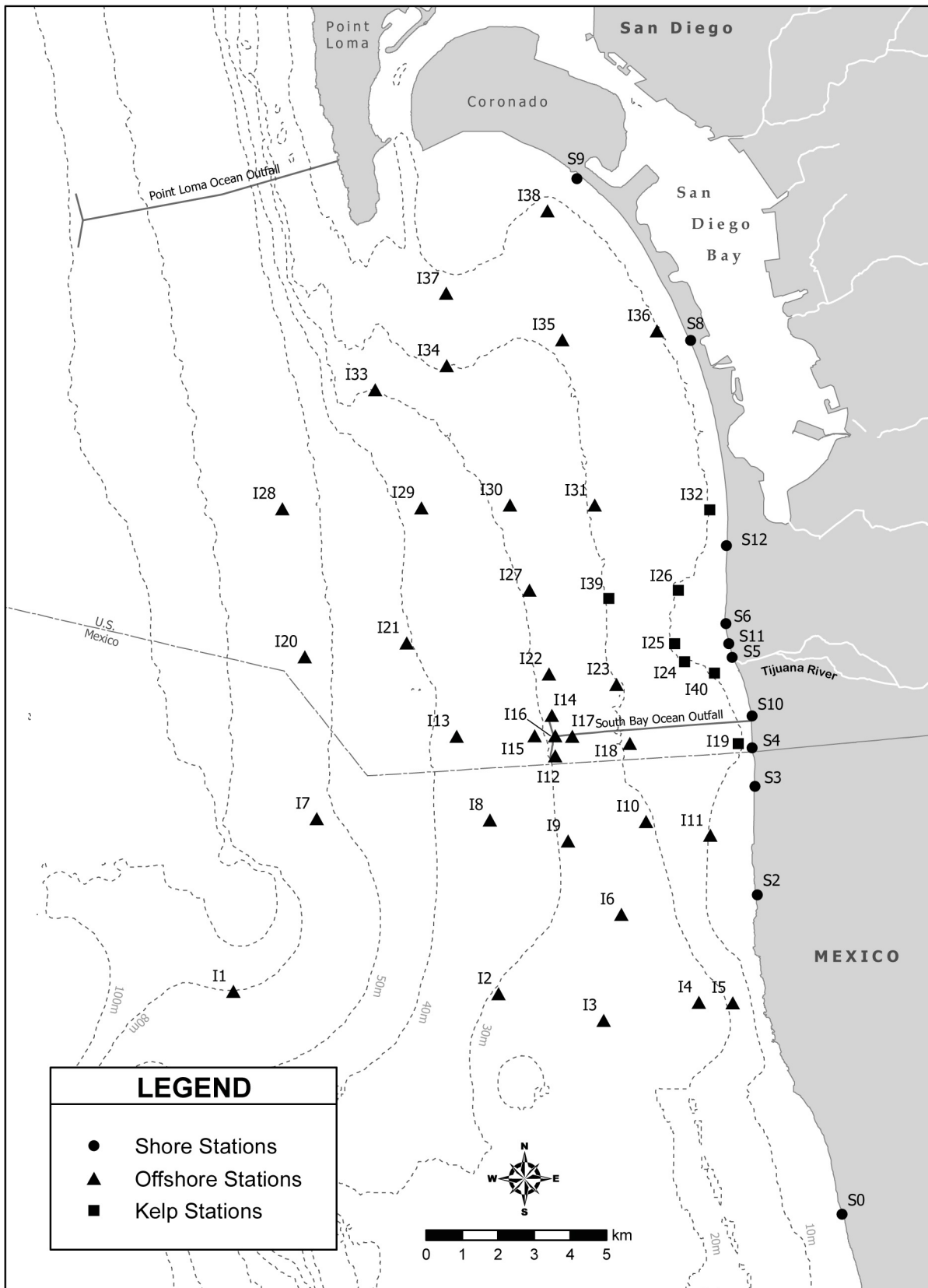


Figure 1.1 Station Map

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Shore Stations

Table 2.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for total 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 >1,000 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 Jun 2020	327	4909	547	176*	53*	642	1528	63
02 Jun 2020	174	3401	379	114	44	391	980	83
03 Jun 2020	174	3045	379	114	44	391	980	83
04 Jun 2020	100	2759	547	99*	30*	247	1594	70
05 Jun 2020	100	2759	547	99*	30*	247	1594	70
06 Jun 2020	36	2834	547	99*	30*	107	1594	70
07 Jun 2020	36	2834	547	99*	30*	107	1594	70
08 Jun 2020	24*	2421	547	99*	30*	92*	1594	70
09 Jun 2020	23	2834	409	72	28	68	1484	57
10 Jun 2020	23	2421	409	72	28	68	1484	57
11 Jun 2020	24*	2421	306	36*	20*	92*	1103	22
12 Jun 2020	24*	2834	306	36*	20*	92*	1103	22
13 Jun 2020	24*	2421	371	36*	20*	92*	1172	23*
14 Jun 2020	24*	2584	371	36*	20*	92*	1172	23*
15 Jun 2020	24*	2584	371	36*	20*	92*	1172	23*
16 Jun 2020	14	3361	257	32	20	53	838	51
17 Jun 2020	14	3361	257	32	20	53	838	51
18 Jun 2020	8*	5611	371	36*	20*	38*	1429	71
19 Jun 2020	8*	5611	371	36*	20*	38*	1429	71
20 Jun 2020	8*	5611	371	36*	20*	38*	1429	71
21 Jun 2020	8*	5611	371	36*	20*	38*	1429	71
22 Jun 2020	8*	5611	371	36*	20*	38*	1429	71
23 Jun 2020	11	6172	408	32	20	48	1932	64
24 Jun 2020	11	6172	408	32	20	48	1932	64
25 Jun 2020	10*	6172	265	20*	20*	23*	2003	129
26 Jun 2020	10*	6172	265	20*	20*	23*	2003	129
27 Jun 2020	10*	6172	181	20*	20*	23*	2076	129
28 Jun 2020	10*	5611	81	20*	20*	23*	1551	129
29 Jun 2020	10*	6172	81	20*	20*	23*	2076	129
30 Jun 2020	18	6172	183	25	23	44	2582	187

* Geometric mean calculated using $n < 5$

Table 2.2

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 Jun 2020	77	2632	158	9*	5*	106	186	11
02 Jun 2020	46	1815	113	7	5	60	118	15
03 Jun 2020	46	1586	113	7	5	60	118	15
04 Jun 2020	23	1571	188	9*	6*	36	186	22
05 Jun 2020	23	1571	188	9*	6*	36	186	22
06 Jun 2020	7	1676	188	9*	6*	11	186	22
07 Jun 2020	7	1676	188	9*	6*	11	186	22
08 Jun 2020	6*	1401	188	9*	6*	10*	186	22
09 Jun 2020	5	1676	146	7	5	9	192	15
10 Jun 2020	5	1401	146	7	5	9	192	15
11 Jun 2020	4*	1401	113	4*	4*	10*	143	7
12 Jun 2020	4*	1676	113	4*	4*	10*	143	7
13 Jun 2020	4*	1401	123	4*	4*	10*	119	5*
14 Jun 2020	4*	1286	123	4*	4*	10*	213	5*
15 Jun 2020	4*	1286	123	4*	4*	10*	213	5*
16 Jun 2020	3	1514	80	3	3	7	137	11
17 Jun 2020	3	1514	80	3	3	7	137	11
18 Jun 2020	2*	2937	136	4*	3*	9*	250	15
19 Jun 2020	2*	2937	136	4*	3*	9*	250	15
20 Jun 2020	2*	2937	136	4*	3*	9*	250	15
21 Jun 2020	2*	2937	136	4*	3*	9*	250	15
22 Jun 2020	2*	2937	136	4*	3*	9*	250	15
23 Jun 2020	2	3338	149	3	3	11	372	13
24 Jun 2020	2	3338	149	3	3	11	372	13
25 Jun 2020	2*	3338	100	2*	2*	5*	484	19
26 Jun 2020	2*	3338	100	2*	2*	5*	484	19
27 Jun 2020	2*	3338	68	2*	2*	5*	528	19
28 Jun 2020	2*	2937	30	2*	2*	5*	352	19
29 Jun 2020	2*	3338	30	2*	2*	5*	548	19
30 Jun 2020	4	3515	66	3	4	10	868	28

* Geometric mean calculated using $n < 5$

Table 2.3

Summary of compliance with the Ocean Plan's 30-day 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 30 days unless otherwise noted (*). Values >35 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 Jun 2020	44	2969	154	11	3*	320	371	15
02 Jun 2020	31	1964	125	8	3	170	267	20
03 Jun 2020	22	1725	125	8	3	92	323	20
04 Jun 2020	13	1827	153	7	3*	66	407	32
05 Jun 2020	13	1827	153	7	3*	66	407	32
06 Jun 2020	6	2073	153	7	3*	25	407	32
07 Jun 2020	6	2073	153	7	3*	25	407	32
08 Jun 2020	5	1768	153	7	3*	24*	407	32
09 Jun 2020	4	2073	139	6	4	14	360	20
10 Jun 2020	4	1768	139	6	4	14	360	20
11 Jun 2020	5	1768	94	2	3*	14*	347	7
12 Jun 2020	5	2073	94	2	3*	14*	422	7
13 Jun 2020	5	1768	83	2*	3*	14*	396	5*
14 Jun 2020	5	1722	141	2*	3*	14*	337	5*
15 Jun 2020	5	1722	141	2*	3*	14*	337	5*
16 Jun 2020	4	1804	95	2	3	9	240	11
17 Jun 2020	4	1804	95	2	3	9	240	11
18 Jun 2020	2	2978	164	2*	3*	5*	361	16
19 Jun 2020	2	2978	164	2*	3*	5*	361	16
20 Jun 2020	2*	2978	164	2*	3*	5*	361	16
21 Jun 2020	2*	2978	164	2*	3*	5*	361	16
22 Jun 2020	2*	2978	164	2*	3*	5*	361	16
23 Jun 2020	3	3143	164	2	4	7	455	11
24 Jun 2020	3	3143	164	2	4	7	455	11
25 Jun 2020	3*	3143	177	2*	4*	4*	458	16
26 Jun 2020	3*	3143	177	2*	4*	4*	458	16
27 Jun 2020	3*	3143	170	2*	4*	4*	456	16
28 Jun 2020	3*	2749	114	2*	4*	4*	343	16
29 Jun 2020	3*	3143	185	2*	4*	4*	474	16
30 Jun 2020	5	3310	283	2	4	6	647	24

* Geometric mean calculated using $n < 5$

Table 2.4

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

Date	S4	S5	S6	S8	S9	S10	S11	S12
02 Jun 2020	IC	IC	IC	IC	IC	IC	IC	IC
09 Jun 2020	IC	E	IC	IC	IC	IC	IC	IC
11 Jun 2020	ns	E	ns	ns	ns	ns	ns	ns
12 Jun 2020	ns	E	ns	ns	ns	ns	ns	ns
14 Jun 2020	ns	E	ns	ns	ns	ns	ns	ns
16 Jun 2020	IC	IC	IC	IC	IC	IC	IC	IC
18 Jun 2020	ns	ns	ns	ns	ns	ns	ns	IC
23 Jun 2020	IC	E	IC	IC	IC	IC	E	IC
25 Jun 2020	ns	E	ns	ns	ns	ns	E	ns
27 Jun 2020	ns	E	ns	ns	ns	ns	E	ns
29 Jun 2020	ns	E	ns	ns	ns	ns	E	ns
30 Jun 2020	IC	E	E	IC	IC	IC	E	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.5

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 Jun 2020	IC	IC	IC	IC	IC	IC	IC	IC
09 Jun 2020	IC	E	IC	IC	IC	IC	IC	IC
11 Jun 2020	ns	E	ns	ns	ns	ns	ns	ns
12 Jun 2020	ns	E	ns	ns	ns	ns	ns	ns
14 Jun 2020	ns	E	ns	ns	ns	ns	ns	ns
16 Jun 2020	IC	IC	IC	IC	IC	IC	IC	IC
18 Jun 2020	ns	ns	ns	ns	ns	ns	ns	IC
23 Jun 2020	IC	E	IC	IC	IC	IC	E	IC
25 Jun 2020	ns	E	ns	ns	ns	ns	E	ns
27 Jun 2020	ns	E	ns	ns	ns	ns	E	ns
29 Jun 2020	ns	E	ns	ns	ns	ns	E	ns
30 Jun 2020	IC	E	E	IC	IC	IC	E	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.6

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

Date	S4	S5	S6	S8	S9	S10	S11	S12
02 Jun 2020	IC	IC	IC	IC	IC	IC	IC	IC
09 Jun 2020	IC	E	IC	IC	IC	IC	E	IC
11 Jun 2020	ns	E	ns	ns	ns	ns	E	ns
12 Jun 2020	ns	E	ns	ns	ns	ns	E	ns
14 Jun 2020	ns	E	ns	ns	ns	ns	IC	ns
16 Jun 2020	IC	IC	IC	IC	IC	IC	IC	E
18 Jun 2020	ns	ns	ns	ns	ns	ns	ns	IC
23 Jun 2020	IC	E	E	IC	IC	IC	E	IC
25 Jun 2020	ns	E	E	ns	ns	ns	E	ns
27 Jun 2020	ns	E	E	ns	ns	ns	E	ns
29 Jun 2020	ns	E	E	ns	ns	ns	E	ns
30 Jun 2020	IC	E	E	IC	IC	IC	E	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.7

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

Date	S4	S5	S6	S8	S9	S10	S11	S12
02 Jun 2020	IC	IC	IC	IC	IC	IC	IC	IC
09 Jun 2020	IC	E	IC	IC	IC	IC	IC	IC
11 Jun 2020	ns	E	ns	ns	ns	ns	ns	ns
12 Jun 2020	ns	E	ns	ns	ns	ns	ns	ns
14 Jun 2020	ns	E	ns	ns	ns	ns	ns	ns
16 Jun 2020	IC	IC	IC	IC	IC	IC	IC	E
18 Jun 2020	ns	ns	ns	ns	ns	ns	ns	IC
23 Jun 2020	IC	E	IC	IC	IC	IC	E	IC
25 Jun 2020	ns	E	ns	ns	ns	ns	E	ns
27 Jun 2020	ns	E	ns	ns	ns	ns	E	ns
29 Jun 2020	ns	E	ns	ns	ns	ns	E	ns
30 Jun 2020	IC	E	E	IC	IC	IC	E	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.8

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

Station	Date	Time	Total	Fecal	Entero	F:T
S0	02 Jun 2020	1110	180e	52	82	0.29
S0	09 Jun 2020	1045	1600e	400	220e	0.25
S0	16 Jun 2020	1118	20e	14e	14e	0.70
S0	23 Jun 2020	1115	10000	2200e	2800e	0.22
S0	30 Jun 2020	1130	440	120e	260e	0.27
S2	02 Jun 2020	1140	<2	<2	<2	1.00
S2	09 Jun 2020	1125	<20	2e	<2	0.10
S2	16 Jun 2020	935	2e	2e	2e	1.00
S2	23 Jun 2020	930	<20	2e	8e	0.10
S2	30 Jun 2020	1230	80e	30e	12e	0.38
S3	02 Jun 2020	1215	<20	2e	<2	0.10
S3	09 Jun 2020	1145	<20	<2	<2	0.10
S3	16 Jun 2020	950	<20	<2	<2	0.10
S3	23 Jun 2020	910	20e	<2	2e	0.10
S3	30 Jun 2020	1215	20e	36e	18e	1.80
S4	02 Jun 2020	1013	4e	<2	<2	0.50
S4	09 Jun 2020	946	<20	2e	<2	0.10
S4	16 Jun 2020	1017	2e	2e	<2	1.00
S4	23 Jun 2020	1007	60e	2e	10e	0.03
S4	30 Jun 2020	1105	200e	110	58	0.55
S5	02 Jun 2020	917	<20	10e	6e	0.50
S5	09 Jun 2020	816	> 16000	> 12000	> 12000	0.75
S5	11 Jun 2020	820	> 16000	> 12000	> 12000	0.75
S5	12 Jun 2020	859	> 16000	> 12000	> 12000	0.75
S5	14 Jun 2020	1001	> 16000	2800e	9000	0.17
S5	16 Jun 2020	903	360e	84	50	0.23
S5	23 Jun 2020	904	> 16000	> 12000	5400	0.75
S5	25 Jun 2020	928	> 16000	> 12000	> 12000	0.75
S5	27 Jun 2020	617	> 16000	> 12000	> 12000	0.75
S5	29 Jun 2020	911	> 16000	> 12000	> 12000	0.75
S5	30 Jun 2020	955	> 16000	> 12000	> 12000	0.75
S6	02 Jun 2020	933	20e	8e	18e	0.40
S6	09 Jun 2020	831	40e	20e	60e	0.50
S6	16 Jun 2020	922	20e	4e	6e	0.20
S6	23 Jun 2020	917	800e	280e	160e	0.35
S6	25 Jun 2020	950	ns	ns	3000e	ns
S6	27 Jun 2020	637	ns	ns	580	ns
S6	29 Jun 2020	930	ns	ns	5400	ns
S6	30 Jun 2020	1018	> 16000	7000	4200	0.44
S8	02 Jun 2020	832	<20	2e	<2	0.10
S8	09 Jun 2020	1105	<20	<2	<2	0.10
S8	16 Jun 2020	819	<20	<2	<2	0.10
S8	23 Jun 2020	819	<20	2e	2e	0.10

Station	Date	Time	Total	Fecal	Entero	F:T
S8	30 Jun 2020	847	60e	20e	2e	0.33
S9	02 Jun 2020	812	<20	4e	2e	0.20
S9	09 Jun 2020	1132	20e	<2	12e	0.10
S9	16 Jun 2020	800	<20	<2	<2	0.10
S9	23 Jun 2020	759	<20	<2	8e	0.10
S9	30 Jun 2020	821	40e	<20	4e	0.50
S10	02 Jun 2020	1006	<20	<2	2e	0.10
S10	09 Jun 2020	939	<20	8e	2e	0.40
S10	16 Jun 2020	1011	6e	2e	<2	0.33
S10	23 Jun 2020	1003	120e	28e	20e	0.23
S10	30 Jun 2020	1054	600e	110	68	0.18
S11	02 Jun 2020	927	28e	<2	10e	0.07
S11	09 Jun 2020	825	840	260e	120e	0.31
S11	11 Jun 2020	830	ns	ns	6400	ns
S11	12 Jun 2020	908	ns	ns	3000e	ns
S11	14 Jun 2020	1012	ns	ns	<2	ns
S11	16 Jun 2020	916	80e	6e	8e	0.07
S11	23 Jun 2020	911	> 16000	6000	4600	0.38
S11	25 Jun 2020	943	> 16000	10000	5600	0.62
S11	27 Jun 2020	629	> 16000	> 12000	6600	0.75
S11	29 Jun 2020	922	> 16000	> 12000	> 12000	0.75
S11	30 Jun 2020	1009	> 16000	> 12000	11000	0.75
S12	02 Jun 2020	851	340e	66	90	0.19
S12	09 Jun 2020	858	20e	<2	<2	0.10
S12	16 Jun 2020	838	1300	300e	260e	0.23
S12	18 Jun 2020	947	100e	10e	10e	0.10
S12	23 Jun 2020	838	40e	6e	2e	0.15
S12	30 Jun 2020	931	1200e	200e	180e	0.17

ns = not sampled

ND = no data

Comments

Station	Date	Depth	Parameter	Comments
S5	11 Jun 2020			Resample
S11	11 Jun 2020			Resample
S5	12 Jun 2020			Resample
S11	12 Jun 2020			Resample
S5	14 Jun 2020			Resample
S11	14 Jun 2020			Resample
S12	18 Jun 2020			Resample
S5	25 Jun 2020			Resample
S6	25 Jun 2020			Resample
S11	25 Jun 2020			Resample
S5	27 Jun 2020			Resample
S6	27 Jun 2020			Resample
S11	27 Jun 2020			Resample
S5	29 Jun 2020			Resample
S6	29 Jun 2020			Resample
S11	29 Jun 2020			Resample

Table 2.9

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

Station	Date	Parameter	Value
S0	02 Jun 2020	Arrive Time	1110
S0	02 Jun 2020	Weather	Sunny
S0	02 Jun 2020	Wind Speed (kts)	2.4
S0	02 Jun 2020	Wind Dir	NE
S0	02 Jun 2020	Animal Life	15 Seagulls
S0	02 Jun 2020	Floatables	None
S0	02 Jun 2020	Water Color	Green
S0	02 Jun 2020	Current Direction	N
S0	02 Jun 2020	Water Temp (C)	15
S0	02 Jun 2020	Wave Height Low (ft)	3
S0	02 Jun 2020	High Tide (ft)	4.1
S0	02 Jun 2020	High Tide Time	715
S0	02 Jun 2020	Low Tide (ft)	0.6
S0	02 Jun 2020	Low Tide Time	1303
S0	02 Jun 2020	Comments	Kelp; Water turbid; 0.5 L/sec water flowing from storm drain
S0	09 Jun 2020	Arrive Time	1045
S0	09 Jun 2020	Weather	Sunny
S0	09 Jun 2020	Wind Speed (kts)	3.6
S0	09 Jun 2020	Wind Dir	NW
S0	09 Jun 2020	Animal Life	20 Seagulls
S0	09 Jun 2020	Floatables	None
S0	09 Jun 2020	Water Color	Green
S0	09 Jun 2020	Current Direction	S
S0	09 Jun 2020	Water Temp (C)	16
S0	09 Jun 2020	Wave Height Low (ft)	2
S0	09 Jun 2020	High Tide (ft)	3.6
S0	09 Jun 2020	High Tide Time	1345
S0	09 Jun 2020	Low Tide (ft)	-0.6
S0	09 Jun 2020	Low Tide Time	659
S0	09 Jun 2020	Comments	Kelp; Water turbid; 0.5 L/sec water flowing from storm drain
S0	16 Jun 2020	Arrive Time	1118
S0	16 Jun 2020	Weather	Cloudy
S0	16 Jun 2020	Wind Speed (kts)	2.8
S0	16 Jun 2020	Wind Dir	NW
S0	16 Jun 2020	Animal Life	20 Seagulls
S0	16 Jun 2020	Floatables	None
S0	16 Jun 2020	Water Color	Green
S0	16 Jun 2020	Current Direction	N
S0	16 Jun 2020	Water Temp (C)	15
S0	16 Jun 2020	Wave Height Low (ft)	3
S0	16 Jun 2020	High Tide (ft)	3.3
S0	16 Jun 2020	High Tide Time	708
S0	16 Jun 2020	Low Tide (ft)	1.5
S0	16 Jun 2020	Low Tide Time	1234
S0	16 Jun 2020	Comments	Kelp; Water turbid; 0.5 L/sec water flowing from storm drain
S0	23 Jun 2020	Arrive Time	1115
S0	23 Jun 2020	Weather	Cloudy
S0	23 Jun 2020	Wind Speed (kts)	3.7

Station	Date	Parameter	Value
S0	23 Jun 2020	Wind Dir	NW
S0	23 Jun 2020	Animal Life	20 Seagulls
S0	23 Jun 2020	Floatables	None
S0	23 Jun 2020	Water Color	Green
S0	23 Jun 2020	Current Direction	S
S0	23 Jun 2020	Water Temp (C)	16
S0	23 Jun 2020	Wave Height Low (ft)	2
S0	23 Jun 2020	High Tide (ft)	3.6
S0	23 Jun 2020	High Tide Time	1215
S0	23 Jun 2020	Low Tide (ft)	-0.9
S0	23 Jun 2020	Low Tide Time	544
S0	23 Jun 2020	Comments	Kelp; Water turbid; 0.5 L/sec water flowing from storm drain
S0	30 Jun 2020	Arrive Time	1130
S0	30 Jun 2020	Weather	Sunny
S0	30 Jun 2020	Wind Speed (kts)	4.2
S0	30 Jun 2020	Wind Dir	NE
S0	30 Jun 2020	Animal Life	10 Seagulls
S0	30 Jun 2020	Floatables	None
S0	30 Jun 2020	Water Color	Green
S0	30 Jun 2020	Current Direction	N
S0	30 Jun 2020	Water Temp (C)	16
S0	30 Jun 2020	Wave Height Low (ft)	3
S0	30 Jun 2020	High Tide (ft)	3.5
S0	30 Jun 2020	High Tide Time	605
S0	30 Jun 2020	Low Tide (ft)	1.2
S0	30 Jun 2020	Low Tide Time	1140
S0	30 Jun 2020	Comments	Kelp; 1 Person; Water clear; 0.5 L/sec water flowing from storm drain
S2	02 Jun 2020	Arrive Time	1140
S2	02 Jun 2020	Weather	Cloudy
S2	02 Jun 2020	Wind Speed (kts)	2.8
S2	02 Jun 2020	Wind Dir	NW
S2	02 Jun 2020	Animal Life	15 Seagulls
S2	02 Jun 2020	Floatables	None
S2	02 Jun 2020	Water Color	Green
S2	02 Jun 2020	Current Direction	N
S2	02 Jun 2020	Water Temp (C)	15
S2	02 Jun 2020	Wave Height Low (ft)	2.8
S2	02 Jun 2020	High Tide (ft)	4.1
S2	02 Jun 2020	High Tide Time	715
S2	02 Jun 2020	Low Tide (ft)	0.6
S2	02 Jun 2020	Low Tide Time	1303
S2	02 Jun 2020	Comments	Kelp; Water turbid; No flow from storm drain
S2	09 Jun 2020	Arrive Time	1125
S2	09 Jun 2020	Weather	Sunny
S2	09 Jun 2020	Wind Speed (kts)	2.9
S2	09 Jun 2020	Wind Dir	NW
S2	09 Jun 2020	Animal Life	20 Seagulls
S2	09 Jun 2020	Floatables	None
S2	09 Jun 2020	Water Color	Green
S2	09 Jun 2020	Current Direction	S
S2	09 Jun 2020	Water Temp (C)	16

Station	Date	Parameter	Value
S2	09 Jun 2020	Wave Height Low (ft)	2
S2	09 Jun 2020	High Tide (ft)	3.6
S2	09 Jun 2020	High Tide Time	1345
S2	09 Jun 2020	Low Tide (ft)	-0.6
S2	09 Jun 2020	Low Tide Time	659
S2	09 Jun 2020	Comments	Kelp; Water turbid; No flow from storm drain
S2	16 Jun 2020	Arrive Time	935
S2	16 Jun 2020	Weather	Cloudy
S2	16 Jun 2020	Wind Speed (kts)	2.3
S2	16 Jun 2020	Wind Dir	NW
S2	16 Jun 2020	Animal Life	3 Dogs; 15 Seagulls
S2	16 Jun 2020	Floatables	None
S2	16 Jun 2020	Water Color	Green
S2	16 Jun 2020	Current Direction	N
S2	16 Jun 2020	Water Temp (C)	15
S2	16 Jun 2020	Wave Height Low (ft)	3
S2	16 Jun 2020	High Tide (ft)	3.3
S2	16 Jun 2020	High Tide Time	708
S2	16 Jun 2020	Low Tide (ft)	1.5
S2	16 Jun 2020	Low Tide Time	1234
S2	16 Jun 2020	Comments	Kelp; Water turbid; No flow from storm drain
S2	23 Jun 2020	Arrive Time	930
S2	23 Jun 2020	Weather	Cloudy
S2	23 Jun 2020	Wind Speed (kts)	3.1
S2	23 Jun 2020	Wind Dir	NW
S2	23 Jun 2020	Animal Life	20 Seagulls
S2	23 Jun 2020	Floatables	None
S2	23 Jun 2020	Water Color	Green
S2	23 Jun 2020	Current Direction	S
S2	23 Jun 2020	Water Temp (C)	16
S2	23 Jun 2020	Wave Height Low (ft)	2
S2	23 Jun 2020	High Tide (ft)	3.6
S2	23 Jun 2020	High Tide Time	1215
S2	23 Jun 2020	Low Tide (ft)	-0.9
S2	23 Jun 2020	Low Tide Time	544
S2	23 Jun 2020	Comments	Kelp; Water turbid; No flow from storm drain
S2	30 Jun 2020	Arrive Time	1230
S2	30 Jun 2020	Weather	Sunny
S2	30 Jun 2020	Wind Speed (kts)	4.1
S2	30 Jun 2020	Wind Dir	NE
S2	30 Jun 2020	Animal Life	10 Seagulls
S2	30 Jun 2020	Floatables	None
S2	30 Jun 2020	Water Color	Green
S2	30 Jun 2020	Current Direction	N
S2	30 Jun 2020	Water Temp (C)	16
S2	30 Jun 2020	Wave Height Low (ft)	3
S2	30 Jun 2020	High Tide (ft)	5.8
S2	30 Jun 2020	High Tide Time	1814
S2	30 Jun 2020	Low Tide (ft)	1.2
S2	30 Jun 2020	Low Tide Time	1140
S2	30 Jun 2020	Comments	Kelp; 2 Persons; Water clear; No flow from storm drain

Station	Date	Parameter	Value
S3	02 Jun 2020	Arrive Time	1215
S3	02 Jun 2020	Weather	Cloudy
S3	02 Jun 2020	Wind Speed (kts)	2.4
S3	02 Jun 2020	Wind Dir	NW
S3	02 Jun 2020	Animal Life	15 Seagulls
S3	02 Jun 2020	Floatables	None
S3	02 Jun 2020	Water Color	Green
S3	02 Jun 2020	Current Direction	N
S3	02 Jun 2020	Water Temp (C)	15
S3	02 Jun 2020	Wave Height Low (ft)	3
S3	02 Jun 2020	High Tide (ft)	4.1
S3	02 Jun 2020	High Tide Time	715
S3	02 Jun 2020	Low Tide (ft)	0.6
S3	02 Jun 2020	Low Tide Time	1303
S3	02 Jun 2020	Comments	Kelp; Water clear; No flow from storm drain
S3	09 Jun 2020	Arrive Time	1145
S3	09 Jun 2020	Weather	Sunny
S3	09 Jun 2020	Wind Speed (kts)	4.1
S3	09 Jun 2020	Wind Dir	NW
S3	09 Jun 2020	Animal Life	20 Seagulls
S3	09 Jun 2020	Floatables	None
S3	09 Jun 2020	Water Color	Green
S3	09 Jun 2020	Current Direction	S
S3	09 Jun 2020	Water Temp (C)	16
S3	09 Jun 2020	Wave Height Low (ft)	2
S3	09 Jun 2020	High Tide (ft)	3.6
S3	09 Jun 2020	High Tide Time	1345
S3	09 Jun 2020	Low Tide (ft)	-0.6
S3	09 Jun 2020	Low Tide Time	659
S3	09 Jun 2020	Comments	Kelp; Water turbid; No flow from storm drain
S3	16 Jun 2020	Arrive Time	950
S3	16 Jun 2020	Weather	Cloudy
S3	16 Jun 2020	Wind Speed (kts)	3.6
S3	16 Jun 2020	Wind Dir	NW
S3	16 Jun 2020	Animal Life	15 Seagulls
S3	16 Jun 2020	Floatables	None
S3	16 Jun 2020	Water Color	Green
S3	16 Jun 2020	Current Direction	N
S3	16 Jun 2020	Water Temp (C)	15
S3	16 Jun 2020	Wave Height Low (ft)	3
S3	16 Jun 2020	High Tide (ft)	3.3
S3	16 Jun 2020	High Tide Time	708
S3	16 Jun 2020	Low Tide (ft)	1.5
S3	16 Jun 2020	Low Tide Time	1234
S3	16 Jun 2020	Comments	Kelp; Water turbid; No flow from storm drain
S3	23 Jun 2020	Arrive Time	910
S3	23 Jun 2020	Weather	Cloudy
S3	23 Jun 2020	Wind Speed (kts)	3.6
S3	23 Jun 2020	Wind Dir	NW
S3	23 Jun 2020	Animal Life	20 Seagulls
S3	23 Jun 2020	Floatables	None
S3	23 Jun 2020	Water Color	Green

Station	Date	Parameter	Value
S3	23 Jun 2020	Current Direction	S
S3	23 Jun 2020	Water Temp (C)	15
S3	23 Jun 2020	Wave Height Low (ft)	2
S3	23 Jun 2020	High Tide (ft)	3.6
S3	23 Jun 2020	High Tide Time	1215
S3	23 Jun 2020	Low Tide (ft)	-0.9
S3	23 Jun 2020	Low Tide Time	544
S3	23 Jun 2020	Comments	Kelp; Water turbid; No flow from storm drain
S3	30 Jun 2020	Arrive Time	1215
S3	30 Jun 2020	Weather	Sunny
S3	30 Jun 2020	Wind Speed (kts)	4
S3	30 Jun 2020	Wind Dir	NE
S3	30 Jun 2020	Animal Life	20 Seagulls
S3	30 Jun 2020	Floatables	None
S3	30 Jun 2020	Water Color	Green
S3	30 Jun 2020	Current Direction	N
S3	30 Jun 2020	Water Temp (C)	16
S3	30 Jun 2020	Wave Height Low (ft)	3
S3	30 Jun 2020	High Tide (ft)	5.8
S3	30 Jun 2020	High Tide Time	1814
S3	30 Jun 2020	Low Tide (ft)	1.2
S3	30 Jun 2020	Low Tide Time	1140
S3	30 Jun 2020	Comments	Kelp; 2 Persons; Water clear; No flow from storm drain
S4	02 Jun 2020	Arrive Time	1013
S4	02 Jun 2020	Weather	Partly Cloudy
S4	02 Jun 2020	Wind Speed (kts)	4.2
S4	02 Jun 2020	Wind Dir	SW
S4	02 Jun 2020	Animal Life	7 Seagulls
S4	02 Jun 2020	Floatables	None
S4	02 Jun 2020	Water Color	Green
S4	02 Jun 2020	Current Direction	S
S4	02 Jun 2020	Water Temp (C)	16
S4	02 Jun 2020	Wave Height Low (ft)	3
S4	02 Jun 2020	High Tide (ft)	4.1
S4	02 Jun 2020	High Tide Time	715
S4	02 Jun 2020	Low Tide (ft)	0.6
S4	02 Jun 2020	Low Tide Time	1303
S4	02 Jun 2020	Comments	Kelp; Water clear
S4	09 Jun 2020	Arrive Time	946
S4	09 Jun 2020	Weather	Sunny
S4	09 Jun 2020	Wind Speed (kts)	7.7
S4	09 Jun 2020	Wind Dir	NE
S4	09 Jun 2020	Animal Life	1 Godwit
S4	09 Jun 2020	Floatables	Foam
S4	09 Jun 2020	Water Color	Green
S4	09 Jun 2020	Current Direction	S
S4	09 Jun 2020	Water Temp (C)	15.7
S4	09 Jun 2020	Wave Height Low (ft)	4
S4	09 Jun 2020	High Tide (ft)	3.6
S4	09 Jun 2020	High Tide Time	1345
S4	09 Jun 2020	Low Tide (ft)	-0.6
S4	09 Jun 2020	Low Tide Time	659

Station	Date	Parameter	Value
S4	09 Jun 2020	Comments	Kelp; Seagrass; Debris; Water clear
S4	16 Jun 2020	Arrive Time	1017
S4	16 Jun 2020	Weather	Overcast
S4	16 Jun 2020	Wind Speed (kts)	5.4
S4	16 Jun 2020	Wind Dir	SW
S4	16 Jun 2020	Animal Life	None
S4	16 Jun 2020	Floatables	Foam; Film
S4	16 Jun 2020	Water Color	Green
S4	16 Jun 2020	Current Direction	N
S4	16 Jun 2020	Water Temp (C)	19.2
S4	16 Jun 2020	Wave Height Low (ft)	3
S4	16 Jun 2020	High Tide (ft)	3.3
S4	16 Jun 2020	High Tide Time	708
S4	16 Jun 2020	Low Tide (ft)	1.5
S4	16 Jun 2020	Low Tide Time	1234
S4	16 Jun 2020	Comments	Kelp; Seagrass; Debris; Water clear
S4	23 Jun 2020	Arrive Time	1007
S4	23 Jun 2020	Weather	Overcast
S4	23 Jun 2020	Wind Speed (kts)	6.4
S4	23 Jun 2020	Wind Dir	W
S4	23 Jun 2020	Animal Life	50 Seagulls
S4	23 Jun 2020	Floatables	Foam; Film
S4	23 Jun 2020	Water Color	Green
S4	23 Jun 2020	Current Direction	S
S4	23 Jun 2020	Water Temp (C)	17.3
S4	23 Jun 2020	Wave Height Low (ft)	1
S4	23 Jun 2020	High Tide (ft)	3.6
S4	23 Jun 2020	High Tide Time	1215
S4	23 Jun 2020	Low Tide (ft)	-0.9
S4	23 Jun 2020	Low Tide Time	544
S4	23 Jun 2020	Comments	Kelp; Seagrass; Debris; Water clear
S4	30 Jun 2020	Arrive Time	1105
S4	30 Jun 2020	Weather	Cloudy
S4	30 Jun 2020	Wind Speed (kts)	6.2
S4	30 Jun 2020	Wind Dir	NW
S4	30 Jun 2020	Animal Life	1 Godwit
S4	30 Jun 2020	Floatables	Foam
S4	30 Jun 2020	Water Color	Green
S4	30 Jun 2020	Current Direction	S
S4	30 Jun 2020	Water Temp (C)	19.2
S4	30 Jun 2020	Wave Height Low (ft)	4
S4	30 Jun 2020	High Tide (ft)	3.5
S4	30 Jun 2020	High Tide Time	605
S4	30 Jun 2020	Low Tide (ft)	1.2
S4	30 Jun 2020	Low Tide Time	1140
S4	30 Jun 2020	Comments	Kelp; Sewage-like odor; 1 Tractor; Water clear
S5	02 Jun 2020	Arrive Time	917
S5	02 Jun 2020	Weather	Partly Cloudy
S5	02 Jun 2020	Wind Speed (kts)	3.6
S5	02 Jun 2020	Wind Dir	SW
S5	02 Jun 2020	Animal Life	1 Dog; 11 Godwits; 2 Pelicans; 1 Tern

Station	Date	Parameter	Value
S5	02 Jun 2020	Floatables	None
S5	02 Jun 2020	Water Color	Blue
S5	02 Jun 2020	Current Direction	S
S5	02 Jun 2020	Water Temp (C)	16.4
S5	02 Jun 2020	Wave Height Low (ft)	3
S5	02 Jun 2020	High Tide (ft)	4.1
S5	02 Jun 2020	High Tide Time	715
S5	02 Jun 2020	Low Tide (ft)	0.6
S5	02 Jun 2020	Low Tide Time	1303
S5	02 Jun 2020	Comments	Kelp; 1 Person; Water clear
S5	09 Jun 2020	Arrive Time	816
S5	09 Jun 2020	Weather	Sunny
S5	09 Jun 2020	Wind Speed (kts)	1.1
S5	09 Jun 2020	Wind Dir	N
S5	09 Jun 2020	Animal Life	21 Pelicans; 1 Plover; 1 Sanderling; 13 Seagulls
S5	09 Jun 2020	Floatables	Foam; Film
S5	09 Jun 2020	Water Color	Green
S5	09 Jun 2020	Current Direction	S
S5	09 Jun 2020	Water Temp (C)	19.8
S5	09 Jun 2020	Wave Height Low (ft)	1
S5	09 Jun 2020	High Tide (ft)	3.6
S5	09 Jun 2020	High Tide Time	1345
S5	09 Jun 2020	Low Tide (ft)	-0.6
S5	09 Jun 2020	Low Tide Time	659
S5	09 Jun 2020	Comments	Kelp; Seagrass; Sewage-like odor; 1 Jogger; 5 Persons; Water turbid
S5	11 Jun 2020	Arrive Time	820
S5	11 Jun 2020	Weather	Foggy
S5	11 Jun 2020	Wind Speed (kts)	1.9
S5	11 Jun 2020	Wind Dir	W
S5	11 Jun 2020	Animal Life	22 Grebes; 1 Seagull
S5	11 Jun 2020	Floatables	Foam; Film
S5	11 Jun 2020	Water Color	Green
S5	11 Jun 2020	Current Direction	N
S5	11 Jun 2020	Water Temp (C)	20.7
S5	11 Jun 2020	Wave Height Low (ft)	1
S5	11 Jun 2020	High Tide (ft)	4.5
S5	11 Jun 2020	High Tide Time	108
S5	11 Jun 2020	Low Tide (ft)	0.2
S5	11 Jun 2020	Low Tide Time	845
S5	11 Jun 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; 4 Persons; Water clear
S5	12 Jun 2020	Arrive Time	859
S5	12 Jun 2020	Weather	Partly Cloudy
S5	12 Jun 2020	Wind Speed (kts)	5.6
S5	12 Jun 2020	Wind Dir	W
S5	12 Jun 2020	Animal Life	7 Godwits
S5	12 Jun 2020	Floatables	Foam; Film
S5	12 Jun 2020	Water Color	Green
S5	12 Jun 2020	Current Direction	N
S5	12 Jun 2020	Water Temp (C)	22
S5	12 Jun 2020	Wave Height Low (ft)	3

Station	Date	Parameter	Value
S5	12 Jun 2020	High Tide (ft)	4
S5	12 Jun 2020	High Tide Time	216
S5	12 Jun 2020	Low Tide (ft)	0.6
S5	12 Jun 2020	Low Tide Time	939
S5	12 Jun 2020	Comments	Resample; Kelp; Seagrass; Sewage-like odor; 1 Person; Water turbid
S5	14 Jun 2020	Arrive Time	1001
S5	14 Jun 2020	Weather	Sunny
S5	14 Jun 2020	Wind Speed (kts)	8.9
S5	14 Jun 2020	Wind Dir	SW
S5	14 Jun 2020	Animal Life	1 Dog; 2 Godwits; 2 Grebes; 18 Terns
S5	14 Jun 2020	Floatables	Foam
S5	14 Jun 2020	Water Color	Brown
S5	14 Jun 2020	Current Direction	N
S5	14 Jun 2020	Water Temp (C)	20.8
S5	14 Jun 2020	Wave Height Low (ft)	2
S5	14 Jun 2020	High Tide (ft)	3.4
S5	14 Jun 2020	High Tide Time	457
S5	14 Jun 2020	Low Tide (ft)	1.1
S5	14 Jun 2020	Low Tide Time	1116
S5	14 Jun 2020	Comments	Resample; Kelp; Sewage-like odor; 3 Persons; Water turbid
S5	16 Jun 2020	Arrive Time	903
S5	16 Jun 2020	Weather	Overcast
S5	16 Jun 2020	Wind Speed (kts)	4.6
S5	16 Jun 2020	Wind Dir	SW
S5	16 Jun 2020	Animal Life	27 Godwits
S5	16 Jun 2020	Floatables	Foam; Film
S5	16 Jun 2020	Water Color	Green
S5	16 Jun 2020	Current Direction	N
S5	16 Jun 2020	Water Temp (C)	19.4
S5	16 Jun 2020	Wave Height Low (ft)	2
S5	16 Jun 2020	High Tide (ft)	3.3
S5	16 Jun 2020	High Tide Time	708
S5	16 Jun 2020	Low Tide (ft)	1.5
S5	16 Jun 2020	Low Tide Time	1234
S5	16 Jun 2020	Comments	Kelp; Seagrass; Debris; Water clear
S5	23 Jun 2020	Arrive Time	904
S5	23 Jun 2020	Weather	Overcast
S5	23 Jun 2020	Wind Speed (kts)	6.6
S5	23 Jun 2020	Wind Dir	N
S5	23 Jun 2020	Animal Life	24 Pelicans; !1 Seagull
S5	23 Jun 2020	Floatables	Foam; Film
S5	23 Jun 2020	Water Color	Green
S5	23 Jun 2020	Current Direction	S
S5	23 Jun 2020	Water Temp (C)	18.1
S5	23 Jun 2020	Wave Height Low (ft)	2
S5	23 Jun 2020	High Tide (ft)	3.6
S5	23 Jun 2020	High Tide Time	1215
S5	23 Jun 2020	Low Tide (ft)	-0.9
S5	23 Jun 2020	Low Tide Time	544
S5	23 Jun 2020	Comments	Kelp; Seagrass; Debris; Water clear

Station	Date	Parameter	Value
S5	25 Jun 2020	Arrive Time	928
S5	25 Jun 2020	Weather	Overcast
S5	25 Jun 2020	Wind Speed (kts)	3.3
S5	25 Jun 2020	Wind Dir	W
S5	25 Jun 2020	Animal Life	1 Dog; 26 Pelicans; 8 Seagulls; 18 Terns
S5	25 Jun 2020	Floatables	Foam; Film
S5	25 Jun 2020	Water Color	Green
S5	25 Jun 2020	Current Direction	S
S5	25 Jun 2020	Water Temp (C)	20.2
S5	25 Jun 2020	Wave Height Low (ft)	1
S5	25 Jun 2020	High Tide (ft)	3.8
S5	25 Jun 2020	High Tide Time	1359
S5	25 Jun 2020	Low Tide (ft)	-0.5
S5	25 Jun 2020	Low Tide Time	714
S5	25 Jun 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; 5 Persons; Water clear
S5	27 Jun 2020	Arrive Time	617
S5	27 Jun 2020	Weather	Cloudy
S5	27 Jun 2020	Wind Speed (kts)	2.9
S5	27 Jun 2020	Wind Dir	W
S5	27 Jun 2020	Animal Life	200 Pelicans; 7 Terns; 1 Egret
S5	27 Jun 2020	Floatables	Foam; Film
S5	27 Jun 2020	Water Color	Brown
S5	27 Jun 2020	Current Direction	S
S5	27 Jun 2020	Water Temp (C)	20.8
S5	27 Jun 2020	Wave Height Low (ft)	1
S5	27 Jun 2020	High Tide (ft)	4.5
S5	27 Jun 2020	High Tide Time	144
S5	27 Jun 2020	Low Tide (ft)	0.2
S5	27 Jun 2020	Low Tide Time	856
S5	27 Jun 2020	Comments	Resample; Kelp; Seagrass; Sewage-like odor; Water turbid
S5	29 Jun 2020	Arrive Time	911
S5	29 Jun 2020	Weather	Overcast
S5	29 Jun 2020	Wind Speed (kts)	6.6
S5	29 Jun 2020	Wind Dir	W
S5	29 Jun 2020	Animal Life	2 Godwits; 1 Plover
S5	29 Jun 2020	Floatables	Foam; Film
S5	29 Jun 2020	Water Color	Brown
S5	29 Jun 2020	Current Direction	N
S5	29 Jun 2020	Water Temp (C)	20.5
S5	29 Jun 2020	Wave Height Low (ft)	1
S5	29 Jun 2020	High Tide (ft)	3.6
S5	29 Jun 2020	High Tide Time	439
S5	29 Jun 2020	Low Tide (ft)	0.9
S5	29 Jun 2020	Low Tide Time	1046
S5	29 Jun 2020	Comments	Resample; Kelp; Seagrass; Sewage-like odor; Water turbid; Strong detergent smell
S5	30 Jun 2020	Arrive Time	955
S5	30 Jun 2020	Weather	Cloudy
S5	30 Jun 2020	Wind Speed (kts)	6.4
S5	30 Jun 2020	Wind Dir	W
S5	30 Jun 2020	Animal Life	4 Dolphins; 6 Godwits; 1 Pelican; 1 Tern

Station	Date	Parameter	Value
S5	30 Jun 2020	Floatables	Foam
S5	30 Jun 2020	Water Color	Blue
S5	30 Jun 2020	Current Direction	S
S5	30 Jun 2020	Water Temp (C)	20.4
S5	30 Jun 2020	Wave Height Low (ft)	4
S5	30 Jun 2020	High Tide (ft)	3.5
S5	30 Jun 2020	High Tide Time	605
S5	30 Jun 2020	Low Tide (ft)	1.2
S5	30 Jun 2020	Low Tide Time	1140
S5	30 Jun 2020	Comments	Kelp; Sewage-like odor; Water turbid
S6	02 Jun 2020	Arrive Time	933
S6	02 Jun 2020	Weather	Partly Cloudy
S6	02 Jun 2020	Wind Speed (kts)	2.7
S6	02 Jun 2020	Wind Dir	W
S6	02 Jun 2020	Animal Life	1 Cormorant
S6	02 Jun 2020	Floatables	None
S6	02 Jun 2020	Water Color	Green
S6	02 Jun 2020	Current Direction	N
S6	02 Jun 2020	Water Temp (C)	16.6
S6	02 Jun 2020	Wave Height Low (ft)	2
S6	02 Jun 2020	High Tide (ft)	4.1
S6	02 Jun 2020	High Tide Time	715
S6	02 Jun 2020	Low Tide (ft)	0.6
S6	02 Jun 2020	Low Tide Time	1303
S6	02 Jun 2020	Comments	Kelp; 1 Jogger; Water clear
S6	09 Jun 2020	Arrive Time	831
S6	09 Jun 2020	Weather	Sunny
S6	09 Jun 2020	Wind Speed (kts)	3.6
S6	09 Jun 2020	Wind Dir	N
S6	09 Jun 2020	Animal Life	None
S6	09 Jun 2020	Floatables	Foam
S6	09 Jun 2020	Water Color	Green
S6	09 Jun 2020	Current Direction	S
S6	09 Jun 2020	Water Temp (C)	13.6
S6	09 Jun 2020	Wave Height Low (ft)	2
S6	09 Jun 2020	High Tide (ft)	3.6
S6	09 Jun 2020	High Tide Time	1345
S6	09 Jun 2020	Low Tide (ft)	-0.6
S6	09 Jun 2020	Low Tide Time	659
S6	09 Jun 2020	Comments	Kelp; Seagrass; 7 Persons; 4 Surfers; Water clear
S6	16 Jun 2020	Arrive Time	922
S6	16 Jun 2020	Weather	Overcast
S6	16 Jun 2020	Wind Speed (kts)	3.4
S6	16 Jun 2020	Wind Dir	SW
S6	16 Jun 2020	Animal Life	2 Egret
S6	16 Jun 2020	Floatables	Foam; Film
S6	16 Jun 2020	Water Color	Green
S6	16 Jun 2020	Current Direction	N
S6	16 Jun 2020	Water Temp (C)	19.1
S6	16 Jun 2020	Wave Height Low (ft)	2
S6	16 Jun 2020	High Tide (ft)	3.3
S6	16 Jun 2020	High Tide Time	708

Station	Date	Parameter	Value
S6	16 Jun 2020	Low Tide (ft)	1.5
S6	16 Jun 2020	Low Tide Time	1234
S6	16 Jun 2020	Comments	Kelp; Seagrass; Debris; 6 Persons; Water clear
S6	23 Jun 2020	Arrive Time	917
S6	23 Jun 2020	Weather	Overcast
S6	23 Jun 2020	Wind Speed (kts)	7.7
S6	23 Jun 2020	Wind Dir	N
S6	23 Jun 2020	Animal Life	1 Tern; 1 Osprey
S6	23 Jun 2020	Floatables	Foam; Film
S6	23 Jun 2020	Water Color	Green
S6	23 Jun 2020	Current Direction	S
S6	23 Jun 2020	Water Temp (C)	19
S6	23 Jun 2020	Wave Height Low (ft)	1
S6	23 Jun 2020	High Tide (ft)	3.6
S6	23 Jun 2020	High Tide Time	1215
S6	23 Jun 2020	Low Tide (ft)	-0.9
S6	23 Jun 2020	Low Tide Time	544
S6	23 Jun 2020	Comments	Kelp; Seagrass; 2 Persons; 1 Surfer; Water clear
S6	25 Jun 2020	Arrive Time	950
S6	25 Jun 2020	Weather	Overcast
S6	25 Jun 2020	Wind Speed (kts)	3.4
S6	25 Jun 2020	Wind Dir	W
S6	25 Jun 2020	Animal Life	3 Cormorants; 2 Dogs
S6	25 Jun 2020	Floatables	Foam; Film
S6	25 Jun 2020	Water Color	Green
S6	25 Jun 2020	Current Direction	S
S6	25 Jun 2020	Water Temp (C)	18.4
S6	25 Jun 2020	Wave Height Low (ft)	2
S6	25 Jun 2020	High Tide (ft)	3.8
S6	25 Jun 2020	High Tide Time	1359
S6	25 Jun 2020	Low Tide (ft)	-0.5
S6	25 Jun 2020	Low Tide Time	714
S6	25 Jun 2020	Comments	Resample; Kelp; Seagrass; 10 Persons; Water clear
S6	27 Jun 2020	Arrive Time	637
S6	27 Jun 2020	Weather	Cloudy
S6	27 Jun 2020	Wind Speed (kts)	3.4
S6	27 Jun 2020	Wind Dir	W
S6	27 Jun 2020	Animal Life	2 Godwits
S6	27 Jun 2020	Floatables	Foam
S6	27 Jun 2020	Water Color	Green
S6	27 Jun 2020	Current Direction	S
S6	27 Jun 2020	Water Temp (C)	16.9
S6	27 Jun 2020	Wave Height Low (ft)	2
S6	27 Jun 2020	High Tide (ft)	4.5
S6	27 Jun 2020	High Tide Time	144
S6	27 Jun 2020	Low Tide (ft)	0.2
S6	27 Jun 2020	Low Tide Time	856
S6	27 Jun 2020	Comments	Resample; Kelp; Seagrass; 2 Joggers; 1 Person; 1 Surfer; Water clear
S6	29 Jun 2020	Arrive Time	930
S6	29 Jun 2020	Weather	Drizzle

Station	Date	Parameter	Value
S6	29 Jun 2020	Wind Speed (kts)	4.8
S6	29 Jun 2020	Wind Dir	W
S6	29 Jun 2020	Animal Life	10 Godwits
S6	29 Jun 2020	Floatables	Foam
S6	29 Jun 2020	Water Color	Green
S6	29 Jun 2020	Current Direction	N
S6	29 Jun 2020	Water Temp (C)	19.9
S6	29 Jun 2020	Wave Height Low (ft)	3
S6	29 Jun 2020	High Tide (ft)	3.6
S6	29 Jun 2020	High Tide Time	439
S6	29 Jun 2020	Low Tide (ft)	0.9
S6	29 Jun 2020	Low Tide Time	1046
S6	29 Jun 2020	Comments	Resample; Kelp; Seagrass; 2 Persons; Water clear
S6	30 Jun 2020	Arrive Time	1018
S6	30 Jun 2020	Weather	Cloudy
S6	30 Jun 2020	Wind Speed (kts)	6.6
S6	30 Jun 2020	Wind Dir	NW
S6	30 Jun 2020	Animal Life	7 Godwits; 2 Terns
S6	30 Jun 2020	Floatables	Foam
S6	30 Jun 2020	Water Color	Blue
S6	30 Jun 2020	Current Direction	S
S6	30 Jun 2020	Water Temp (C)	19
S6	30 Jun 2020	Wave Height Low (ft)	3
S6	30 Jun 2020	High Tide (ft)	3.5
S6	30 Jun 2020	High Tide Time	605
S6	30 Jun 2020	Low Tide (ft)	1.2
S6	30 Jun 2020	Low Tide Time	1140
S6	30 Jun 2020	Comments	Kelp; 1 Fisherman; Water clear
S8	02 Jun 2020	Arrive Time	832
S8	02 Jun 2020	Weather	Cloudy
S8	02 Jun 2020	Wind Speed (kts)	3.3
S8	02 Jun 2020	Wind Dir	SW
S8	02 Jun 2020	Animal Life	4 Cormorants; 5 Pelicans; 2 Terns
S8	02 Jun 2020	Floatables	None
S8	02 Jun 2020	Water Color	Blue
S8	02 Jun 2020	Current Direction	S
S8	02 Jun 2020	Water Temp (C)	15.3
S8	02 Jun 2020	Wave Height Low (ft)	2
S8	02 Jun 2020	High Tide (ft)	4.1
S8	02 Jun 2020	High Tide Time	715
S8	02 Jun 2020	Low Tide (ft)	0.6
S8	02 Jun 2020	Low Tide Time	1303
S8	02 Jun 2020	Comments	Kelp; Water clear
S8	09 Jun 2020	Arrive Time	1105
S8	09 Jun 2020	Weather	Sunny
S8	09 Jun 2020	Wind Speed (kts)	5.8
S8	09 Jun 2020	Wind Dir	W
S8	09 Jun 2020	Animal Life	None
S8	09 Jun 2020	Floatables	Foam; Film
S8	09 Jun 2020	Water Color	Green
S8	09 Jun 2020	Current Direction	S
S8	09 Jun 2020	Water Temp (C)	17.3

Station	Date	Parameter	Value
S8	09 Jun 2020	Wave Height Low (ft)	3
S8	09 Jun 2020	High Tide (ft)	3.6
S8	09 Jun 2020	High Tide Time	1345
S8	09 Jun 2020	Low Tide (ft)	-0.6
S8	09 Jun 2020	Low Tide Time	659
S8	09 Jun 2020	Comments	Kelp; Seagrass; 3 Persons; Water clear
S8	16 Jun 2020	Arrive Time	819
S8	16 Jun 2020	Weather	Overcast
S8	16 Jun 2020	Wind Speed (kts)	2.5
S8	16 Jun 2020	Wind Dir	SW
S8	16 Jun 2020	Animal Life	2 Seagulls
S8	16 Jun 2020	Floatables	Foam
S8	16 Jun 2020	Water Color	Green
S8	16 Jun 2020	Current Direction	N
S8	16 Jun 2020	Water Temp (C)	19.7
S8	16 Jun 2020	Wave Height Low (ft)	1
S8	16 Jun 2020	High Tide (ft)	3.3
S8	16 Jun 2020	High Tide Time	708
S8	16 Jun 2020	Low Tide (ft)	1.5
S8	16 Jun 2020	Low Tide Time	1234
S8	16 Jun 2020	Comments	Kelp; Seagrass; 2 Persons; Water clear
S8	23 Jun 2020	Arrive Time	819
S8	23 Jun 2020	Weather	Overcast
S8	23 Jun 2020	Wind Speed (kts)	5.6
S8	23 Jun 2020	Wind Dir	N
S8	23 Jun 2020	Animal Life	1 Cormorant; 2 Dogs; 8 Godwits; 2 Sanderlings; 6 Seagulls
S8	23 Jun 2020	Floatables	Foam
S8	23 Jun 2020	Water Color	Green
S8	23 Jun 2020	Current Direction	S
S8	23 Jun 2020	Water Temp (C)	19.2
S8	23 Jun 2020	Wave Height Low (ft)	1
S8	23 Jun 2020	High Tide (ft)	3.6
S8	23 Jun 2020	High Tide Time	1215
S8	23 Jun 2020	Low Tide (ft)	-0.9
S8	23 Jun 2020	Low Tide Time	544
S8	23 Jun 2020	Comments	Kelp; Seagrass; 4 Persons; Water clear
S8	30 Jun 2020	Arrive Time	847
S8	30 Jun 2020	Weather	Cloudy
S8	30 Jun 2020	Wind Speed (kts)	3.4
S8	30 Jun 2020	Wind Dir	E
S8	30 Jun 2020	Animal Life	1 Godwit
S8	30 Jun 2020	Floatables	None
S8	30 Jun 2020	Water Color	Grey
S8	30 Jun 2020	Current Direction	S
S8	30 Jun 2020	Water Temp (C)	20.2
S8	30 Jun 2020	Wave Height Low (ft)	3
S8	30 Jun 2020	High Tide (ft)	3.5
S8	30 Jun 2020	High Tide Time	605
S8	30 Jun 2020	Low Tide (ft)	1.2
S8	30 Jun 2020	Low Tide Time	1140
S8	30 Jun 2020	Comments	Kelp; 1 Jogger; 4 Persons; 1 Fisherman; Water clear

Station	Date	Parameter	Value
S9	02 Jun 2020	Arrive Time	812
S9	02 Jun 2020	Weather	Cloudy
S9	02 Jun 2020	Wind Speed (kts)	3.3
S9	02 Jun 2020	Wind Dir	S
S9	02 Jun 2020	Animal Life	1 Shorebird; 1 Cormorant; 5 Pelicans; 1 Seagull
S9	02 Jun 2020	Floatables	None
S9	02 Jun 2020	Water Color	Blue
S9	02 Jun 2020	Current Direction	S
S9	02 Jun 2020	Water Temp (C)	16.3
S9	02 Jun 2020	Wave Height Low (ft)	2
S9	02 Jun 2020	High Tide (ft)	4.1
S9	02 Jun 2020	High Tide Time	715
S9	02 Jun 2020	Low Tide (ft)	0.6
S9	02 Jun 2020	Low Tide Time	1303
S9	02 Jun 2020	Comments	Kelp; 1 Jogger; 4 Persons; 1 Fisherman; Water clear
S9	09 Jun 2020	Arrive Time	1132
S9	09 Jun 2020	Weather	Sunny
S9	09 Jun 2020	Wind Speed (kts)	2.9
S9	09 Jun 2020	Wind Dir	W
S9	09 Jun 2020	Animal Life	12 Seagulls
S9	09 Jun 2020	Floatables	None
S9	09 Jun 2020	Water Color	Green
S9	09 Jun 2020	Current Direction	S
S9	09 Jun 2020	Water Temp (C)	20.5
S9	09 Jun 2020	Wave Height Low (ft)	2
S9	09 Jun 2020	High Tide (ft)	3.6
S9	09 Jun 2020	High Tide Time	1345
S9	09 Jun 2020	Low Tide (ft)	-0.6
S9	09 Jun 2020	Low Tide Time	659
S9	09 Jun 2020	Comments	42 Persons; Water clear
S9	16 Jun 2020	Arrive Time	800
S9	16 Jun 2020	Weather	Overcast
S9	16 Jun 2020	Wind Speed (kts)	9.7
S9	16 Jun 2020	Wind Dir	W
S9	16 Jun 2020	Animal Life	5 Seagulls
S9	16 Jun 2020	Floatables	Foam; Film
S9	16 Jun 2020	Water Color	Green
S9	16 Jun 2020	Current Direction	N
S9	16 Jun 2020	Water Temp (C)	20
S9	16 Jun 2020	Wave Height Low (ft)	1
S9	16 Jun 2020	High Tide (ft)	3.3
S9	16 Jun 2020	High Tide Time	708
S9	16 Jun 2020	Low Tide (ft)	1.5
S9	16 Jun 2020	Low Tide Time	1234
S9	16 Jun 2020	Comments	Kelp; Seagrass; 3 Persons; 1 Boat; Water clear
S9	23 Jun 2020	Arrive Time	759
S9	23 Jun 2020	Weather	Overcast
S9	23 Jun 2020	Wind Speed (kts)	3.4
S9	23 Jun 2020	Wind Dir	W
S9	23 Jun 2020	Animal Life	3 Seagulls
S9	23 Jun 2020	Floatables	Foam
S9	23 Jun 2020	Water Color	Green

Station	Date	Parameter	Value
S9	23 Jun 2020	Current Direction	S
S9	23 Jun 2020	Water Temp (C)	19.5
S9	23 Jun 2020	Wave Height Low (ft)	0.5
S9	23 Jun 2020	High Tide (ft)	3.6
S9	23 Jun 2020	High Tide Time	1215
S9	23 Jun 2020	Low Tide (ft)	-0.9
S9	23 Jun 2020	Low Tide Time	544
S9	23 Jun 2020	Comments	Kelp; Seagrass; 11 Persons; 3 Boats; 15 Swimmers; Water clear; 1 Car on sand
S9	30 Jun 2020	Arrive Time	821
S9	30 Jun 2020	Weather	Cloudy
S9	30 Jun 2020	Wind Speed (kts)	0.7
S9	30 Jun 2020	Wind Dir	E
S9	30 Jun 2020	Animal Life	1 Dog; 15 Seagulls; 4 Terns
S9	30 Jun 2020	Floatables	None
S9	30 Jun 2020	Water Color	Grey
S9	30 Jun 2020	Current Direction	S
S9	30 Jun 2020	Water Temp (C)	19.5
S9	30 Jun 2020	Wave Height Low (ft)	2
S9	30 Jun 2020	High Tide (ft)	3.5
S9	30 Jun 2020	High Tide Time	605
S9	30 Jun 2020	Low Tide (ft)	1.2
S9	30 Jun 2020	Low Tide Time	1140
S9	30 Jun 2020	Comments	Kelp; 1 Jogger; 12 Persons; 4 Surfers; 1 Tractor; Water clear
S10	02 Jun 2020	Arrive Time	1006
S10	02 Jun 2020	Weather	Partly Cloudy
S10	02 Jun 2020	Wind Speed (kts)	3.4
S10	02 Jun 2020	Wind Dir	SW
S10	02 Jun 2020	Animal Life	None
S10	02 Jun 2020	Floatables	None
S10	02 Jun 2020	Water Color	Green
S10	02 Jun 2020	Current Direction	S
S10	02 Jun 2020	Water Temp (C)	16.5
S10	02 Jun 2020	Wave Height Low (ft)	4
S10	02 Jun 2020	High Tide (ft)	4.1
S10	02 Jun 2020	High Tide Time	715
S10	02 Jun 2020	Low Tide (ft)	0.6
S10	02 Jun 2020	Low Tide Time	1303
S10	02 Jun 2020	Comments	Kelp; Water clear
S10	09 Jun 2020	Arrive Time	939
S10	09 Jun 2020	Weather	Sunny
S10	09 Jun 2020	Wind Speed (kts)	5.2
S10	09 Jun 2020	Wind Dir	N
S10	09 Jun 2020	Animal Life	2 Godwits; 4 Plovers; 2 Seagulls
S10	09 Jun 2020	Floatables	Foam
S10	09 Jun 2020	Water Color	Green
S10	09 Jun 2020	Current Direction	S
S10	09 Jun 2020	Water Temp (C)	15.3
S10	09 Jun 2020	Wave Height Low (ft)	4
S10	09 Jun 2020	High Tide (ft)	3.6
S10	09 Jun 2020	High Tide Time	1345
S10	09 Jun 2020	Low Tide (ft)	-0.6

Station	Date	Parameter	Value
S10	09 Jun 2020	Low Tide Time	659
S10	09 Jun 2020	Comments	Kelp; Debris; Water clear
S10	16 Jun 2020	Arrive Time	1011
S10	16 Jun 2020	Weather	Overcast
S10	16 Jun 2020	Wind Speed (kts)	4
S10	16 Jun 2020	Wind Dir	SW
S10	16 Jun 2020	Animal Life	5 Godwits
S10	16 Jun 2020	Floatables	Foam; Film
S10	16 Jun 2020	Water Color	Green
S10	16 Jun 2020	Current Direction	N
S10	16 Jun 2020	Water Temp (C)	19.7
S10	16 Jun 2020	Wave Height Low (ft)	3
S10	16 Jun 2020	High Tide (ft)	3.3
S10	16 Jun 2020	High Tide Time	708
S10	16 Jun 2020	Low Tide (ft)	1.5
S10	16 Jun 2020	Low Tide Time	1234
S10	16 Jun 2020	Comments	Kelp; Seagrass; Debris; Water clear
S10	23 Jun 2020	Arrive Time	1003
S10	23 Jun 2020	Weather	Overcast
S10	23 Jun 2020	Wind Speed (kts)	6.6
S10	23 Jun 2020	Wind Dir	NW
S10	23 Jun 2020	Animal Life	None
S10	23 Jun 2020	Floatables	Foam; Film
S10	23 Jun 2020	Water Color	Green
S10	23 Jun 2020	Current Direction	S
S10	23 Jun 2020	Water Temp (C)	17.6
S10	23 Jun 2020	Wave Height Low (ft)	1
S10	23 Jun 2020	High Tide (ft)	3.6
S10	23 Jun 2020	High Tide Time	1215
S10	23 Jun 2020	Low Tide (ft)	-0.9
S10	23 Jun 2020	Low Tide Time	544
S10	23 Jun 2020	Comments	Kelp; Seagrass; Debris; Water clear
S10	30 Jun 2020	Arrive Time	1054
S10	30 Jun 2020	Weather	Cloudy
S10	30 Jun 2020	Wind Speed (kts)	7.3
S10	30 Jun 2020	Wind Dir	NW
S10	30 Jun 2020	Animal Life	1 Cormorant; 2 Godwits; 4 Horses; 1 Tern
S10	30 Jun 2020	Floatables	Foam
S10	30 Jun 2020	Water Color	Green
S10	30 Jun 2020	Current Direction	S
S10	30 Jun 2020	Water Temp (C)	19.7
S10	30 Jun 2020	Wave Height Low (ft)	2
S10	30 Jun 2020	High Tide (ft)	3.5
S10	30 Jun 2020	High Tide Time	605
S10	30 Jun 2020	Low Tide (ft)	1.2
S10	30 Jun 2020	Low Tide Time	1140
S10	30 Jun 2020	Comments	Sewage-like odor; 1 Person; Water clear
S11	02 Jun 2020	Arrive Time	927
S11	02 Jun 2020	Weather	Partly Cloudy
S11	02 Jun 2020	Wind Speed (kts)	1.9
S11	02 Jun 2020	Wind Dir	W

Station	Date	Parameter	Value
S11	02 Jun 2020	Animal Life	1 Tern
S11	02 Jun 2020	Floatables	None
S11	02 Jun 2020	Water Color	Green
S11	02 Jun 2020	Current Direction	N
S11	02 Jun 2020	Water Temp (C)	17
S11	02 Jun 2020	Wave Height Low (ft)	2
S11	02 Jun 2020	High Tide (ft)	4.1
S11	02 Jun 2020	High Tide Time	715
S11	02 Jun 2020	Low Tide (ft)	0.6
S11	02 Jun 2020	Low Tide Time	1303
S11	02 Jun 2020	Comments	Kelp; 2 Persons; 2 Surfers; Water clear
S11	09 Jun 2020	Arrive Time	825
S11	09 Jun 2020	Weather	Sunny
S11	09 Jun 2020	Wind Speed (kts)	2.7
S11	09 Jun 2020	Wind Dir	N
S11	09 Jun 2020	Animal Life	2 Dogs; 18 Seagulls
S11	09 Jun 2020	Floatables	Foam
S11	09 Jun 2020	Water Color	Green
S11	09 Jun 2020	Current Direction	S
S11	09 Jun 2020	Water Temp (C)	17.5
S11	09 Jun 2020	Wave Height Low (ft)	3
S11	09 Jun 2020	High Tide (ft)	3.6
S11	09 Jun 2020	High Tide Time	1345
S11	09 Jun 2020	Low Tide (ft)	-0.6
S11	09 Jun 2020	Low Tide Time	659
S11	09 Jun 2020	Comments	Kelp; Seagrass; 5 Persons; Water turbid
S11	11 Jun 2020	Arrive Time	830
S11	11 Jun 2020	Weather	Hazy
S11	11 Jun 2020	Wind Speed (kts)	2.1
S11	11 Jun 2020	Wind Dir	W
S11	11 Jun 2020	Animal Life	11 Godwits; 5 Seagulls
S11	11 Jun 2020	Floatables	None
S11	11 Jun 2020	Water Color	Green
S11	11 Jun 2020	Current Direction	N
S11	11 Jun 2020	Water Temp (C)	17.6
S11	11 Jun 2020	Wave Height Low (ft)	2
S11	11 Jun 2020	High Tide (ft)	4.5
S11	11 Jun 2020	High Tide Time	108
S11	11 Jun 2020	Low Tide (ft)	0.2
S11	11 Jun 2020	Low Tide Time	845
S11	11 Jun 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water turbid; Smell of smoke
S11	12 Jun 2020	Arrive Time	908
S11	12 Jun 2020	Weather	Partly Cloudy
S11	12 Jun 2020	Wind Speed (kts)	6.2
S11	12 Jun 2020	Wind Dir	W
S11	12 Jun 2020	Animal Life	None
S11	12 Jun 2020	Floatables	Foam
S11	12 Jun 2020	Water Color	Green
S11	12 Jun 2020	Current Direction	N
S11	12 Jun 2020	Water Temp (C)	19.4
S11	12 Jun 2020	Wave Height Low (ft)	2

Station	Date	Parameter	Value
S11	12 Jun 2020	High Tide (ft)	4
S11	12 Jun 2020	High Tide Time	216
S11	12 Jun 2020	Low Tide (ft)	0.6
S11	12 Jun 2020	Low Tide Time	939
S11	12 Jun 2020	Comments	Resample; Kelp; Seagrass; Water clear
S11	14 Jun 2020	Arrive Time	1012
S11	14 Jun 2020	Weather	Sunny
S11	14 Jun 2020	Wind Speed (kts)	5.6
S11	14 Jun 2020	Wind Dir	SW
S11	14 Jun 2020	Animal Life	1 Cormorant; 1 Seagull; 8 Terns
S11	14 Jun 2020	Floatables	None
S11	14 Jun 2020	Water Color	Green
S11	14 Jun 2020	Current Direction	N
S11	14 Jun 2020	Water Temp (C)	18.9
S11	14 Jun 2020	Wave Height Low (ft)	3
S11	14 Jun 2020	High Tide (ft)	3.4
S11	14 Jun 2020	High Tide Time	457
S11	14 Jun 2020	Low Tide (ft)	1.1
S11	14 Jun 2020	Low Tide Time	1116
S11	14 Jun 2020	Comments	Resample; 3 Persons; Water clear
S11	16 Jun 2020	Arrive Time	916
S11	16 Jun 2020	Weather	Overcast
S11	16 Jun 2020	Wind Speed (kts)	2.9
S11	16 Jun 2020	Wind Dir	W
S11	16 Jun 2020	Animal Life	1 Dog; 1 Godwit
S11	16 Jun 2020	Floatables	Foam; Film
S11	16 Jun 2020	Water Color	Green
S11	16 Jun 2020	Current Direction	N
S11	16 Jun 2020	Water Temp (C)	19.2
S11	16 Jun 2020	Wave Height Low (ft)	3
S11	16 Jun 2020	High Tide (ft)	3.3
S11	16 Jun 2020	High Tide Time	708
S11	16 Jun 2020	Low Tide (ft)	1.5
S11	16 Jun 2020	Low Tide Time	1234
S11	16 Jun 2020	Comments	Kelp; Seagrass; Debris; 4 Persons; Water clear
S11	23 Jun 2020	Arrive Time	911
S11	23 Jun 2020	Weather	Overcast
S11	23 Jun 2020	Wind Speed (kts)	7.1
S11	23 Jun 2020	Wind Dir	N
S11	23 Jun 2020	Animal Life	None
S11	23 Jun 2020	Floatables	Foam; Film
S11	23 Jun 2020	Water Color	Green
S11	23 Jun 2020	Current Direction	S
S11	23 Jun 2020	Water Temp (C)	18.7
S11	23 Jun 2020	Wave Height Low (ft)	2
S11	23 Jun 2020	High Tide (ft)	3.6
S11	23 Jun 2020	High Tide Time	1215
S11	23 Jun 2020	Low Tide (ft)	-0.9
S11	23 Jun 2020	Low Tide Time	544
S11	23 Jun 2020	Comments	Kelp; Seagrass; 1 Person; Water clear
S11	25 Jun 2020	Arrive Time	943

Station	Date	Parameter	Value
S11	25 Jun 2020	Weather	Overcast
S11	25 Jun 2020	Wind Speed (kts)	1.9
S11	25 Jun 2020	Wind Dir	W
S11	25 Jun 2020	Animal Life	1 Dog; 20 Godwits
S11	25 Jun 2020	Floatables	Foam; Film
S11	25 Jun 2020	Water Color	Green
S11	25 Jun 2020	Current Direction	S
S11	25 Jun 2020	Water Temp (C)	18.1
S11	25 Jun 2020	Wave Height Low (ft)	3
S11	25 Jun 2020	High Tide (ft)	3.8
S11	25 Jun 2020	High Tide Time	1359
S11	25 Jun 2020	Low Tide (ft)	-0.5
S11	25 Jun 2020	Low Tide Time	714
S11	25 Jun 2020	Comments	Resample; Kelp; Seagrass; 1 Jogger; 2 Persons; Water clear
S11	27 Jun 2020	Arrive Time	629
S11	27 Jun 2020	Weather	Cloudy
S11	27 Jun 2020	Wind Speed (kts)	3.1
S11	27 Jun 2020	Wind Dir	W
S11	27 Jun 2020	Animal Life	11 Godwits; 5 Terns
S11	27 Jun 2020	Floatables	Foam
S11	27 Jun 2020	Water Color	Green
S11	27 Jun 2020	Current Direction	S
S11	27 Jun 2020	Water Temp (C)	17.3
S11	27 Jun 2020	Wave Height Low (ft)	2
S11	27 Jun 2020	High Tide (ft)	4.5
S11	27 Jun 2020	High Tide Time	144
S11	27 Jun 2020	Low Tide (ft)	0.2
S11	27 Jun 2020	Low Tide Time	856
S11	27 Jun 2020	Comments	Resample; Kelp; Seagrass; Water clear
S11	29 Jun 2020	Arrive Time	922
S11	29 Jun 2020	Weather	Drizzle
S11	29 Jun 2020	Wind Speed (kts)	5.4
S11	29 Jun 2020	Wind Dir	W
S11	29 Jun 2020	Animal Life	1 Dog; 7 Godwits
S11	29 Jun 2020	Floatables	Foam
S11	29 Jun 2020	Water Color	Green
S11	29 Jun 2020	Current Direction	N
S11	29 Jun 2020	Water Temp (C)	19.4
S11	29 Jun 2020	Wave Height Low (ft)	3
S11	29 Jun 2020	High Tide (ft)	3.6
S11	29 Jun 2020	High Tide Time	439
S11	29 Jun 2020	Low Tide (ft)	0.9
S11	29 Jun 2020	Low Tide Time	1046
S11	29 Jun 2020	Comments	Resample; Kelp; Seagrass; Sewage-like odor; 1 Person; Water turbid; Detergent smell
S11	30 Jun 2020	Arrive Time	1009
S11	30 Jun 2020	Weather	Cloudy
S11	30 Jun 2020	Wind Speed (kts)	4.6
S11	30 Jun 2020	Wind Dir	W
S11	30 Jun 2020	Animal Life	9 Godwits; 8 Terns
S11	30 Jun 2020	Floatables	Foam
S11	30 Jun 2020	Water Color	Green

Station	Date	Parameter	Value
S11	30 Jun 2020	Current Direction	S
S11	30 Jun 2020	Water Temp (C)	19.7
S11	30 Jun 2020	Wave Height Low (ft)	3
S11	30 Jun 2020	High Tide (ft)	3.5
S11	30 Jun 2020	High Tide Time	605
S11	30 Jun 2020	Low Tide (ft)	1.2
S11	30 Jun 2020	Low Tide Time	1140
S11	30 Jun 2020	Comments	Kelp; Water clear
S12	02 Jun 2020	Arrive Time	851
S12	02 Jun 2020	Weather	Partly Cloudy
S12	02 Jun 2020	Wind Speed (kts)	2.7
S12	02 Jun 2020	Wind Dir	SW
S12	02 Jun 2020	Animal Life	1 Dog; 2 Egret
S12	02 Jun 2020	Floatables	None
S12	02 Jun 2020	Water Color	Blue
S12	02 Jun 2020	Current Direction	S
S12	02 Jun 2020	Water Temp (C)	17
S12	02 Jun 2020	Wave Height Low (ft)	3
S12	02 Jun 2020	High Tide (ft)	4.1
S12	02 Jun 2020	High Tide Time	715
S12	02 Jun 2020	Low Tide (ft)	0.6
S12	02 Jun 2020	Low Tide Time	1303
S12	02 Jun 2020	Comments	Kelp; 3 Persons; Water clear
S12	09 Jun 2020	Arrive Time	858
S12	09 Jun 2020	Weather	Sunny
S12	09 Jun 2020	Wind Speed (kts)	3.8
S12	09 Jun 2020	Wind Dir	N
S12	09 Jun 2020	Animal Life	3 Dogs
S12	09 Jun 2020	Floatables	Foam
S12	09 Jun 2020	Water Color	Green
S12	09 Jun 2020	Current Direction	S
S12	09 Jun 2020	Water Temp (C)	16.1
S12	09 Jun 2020	Wave Height Low (ft)	2
S12	09 Jun 2020	High Tide (ft)	3.6
S12	09 Jun 2020	High Tide Time	1345
S12	09 Jun 2020	Low Tide (ft)	-0.6
S12	09 Jun 2020	Low Tide Time	659
S12	09 Jun 2020	Comments	Kelp; 8 Persons; Water clear
S12	16 Jun 2020	Arrive Time	838
S12	16 Jun 2020	Weather	Overcast
S12	16 Jun 2020	Wind Speed (kts)	6.8
S12	16 Jun 2020	Wind Dir	SW
S12	16 Jun 2020	Animal Life	1 Seagull
S12	16 Jun 2020	Floatables	Foam
S12	16 Jun 2020	Water Color	Green
S12	16 Jun 2020	Current Direction	N
S12	16 Jun 2020	Water Temp (C)	19.8
S12	16 Jun 2020	Wave Height Low (ft)	3
S12	16 Jun 2020	High Tide (ft)	3.3
S12	16 Jun 2020	High Tide Time	708
S12	16 Jun 2020	Low Tide (ft)	1.5
S12	16 Jun 2020	Low Tide Time	1234

Station	Date	Parameter	Value
S12	16 Jun 2020	Comments	Kelp; Seagrass; 4 Persons; Water clear; 1 Dead shorebird
S12	18 Jun 2020	Arrive Time	947
S12	18 Jun 2020	Weather	Sunny
S12	18 Jun 2020	Wind Speed (kts)	6
S12	18 Jun 2020	Wind Dir	W
S12	18 Jun 2020	Animal Life	1 Dog
S12	18 Jun 2020	Floatables	Foam; Film
S12	18 Jun 2020	Water Color	Green
S12	18 Jun 2020	Current Direction	N
S12	18 Jun 2020	Water Temp (C)	21.8
S12	18 Jun 2020	Wave Height Low (ft)	3
S12	18 Jun 2020	High Tide (ft)	3.5
S12	18 Jun 2020	High Tide Time	843
S12	18 Jun 2020	Low Tide (ft)	1.8
S12	18 Jun 2020	Low Tide Time	1343
S12	18 Jun 2020	Comments	Resample; Kelp; Seagrass; 1 Jogger; 2 Persons; Water clear
S12	23 Jun 2020	Arrive Time	838
S12	23 Jun 2020	Weather	Overcast
S12	23 Jun 2020	Wind Speed (kts)	4.6
S12	23 Jun 2020	Wind Dir	W
S12	23 Jun 2020	Animal Life	None
S12	23 Jun 2020	Floatables	Foam; Film
S12	23 Jun 2020	Water Color	Green
S12	23 Jun 2020	Current Direction	S
S12	23 Jun 2020	Water Temp (C)	19.8
S12	23 Jun 2020	Wave Height Low (ft)	2
S12	23 Jun 2020	High Tide (ft)	3.6
S12	23 Jun 2020	High Tide Time	1215
S12	23 Jun 2020	Low Tide (ft)	-0.9
S12	23 Jun 2020	Low Tide Time	544
S12	23 Jun 2020	Comments	Kelp; Seagrass; 8 Persons; 2 Fishermen; Water clear
S12	30 Jun 2020	Arrive Time	931
S12	30 Jun 2020	Weather	Cloudy
S12	30 Jun 2020	Wind Speed (kts)	3.3
S12	30 Jun 2020	Wind Dir	W
S12	30 Jun 2020	Animal Life	6 Godwits; 1 Tern
S12	30 Jun 2020	Floatables	None
S12	30 Jun 2020	Water Color	Grey
S12	30 Jun 2020	Current Direction	S
S12	30 Jun 2020	Water Temp (C)	20.3
S12	30 Jun 2020	Wave Height Low (ft)	3
S12	30 Jun 2020	High Tide (ft)	3.5
S12	30 Jun 2020	High Tide Time	605
S12	30 Jun 2020	Low Tide (ft)	1.2
S12	30 Jun 2020	Low Tide Time	1140
S12	30 Jun 2020	Comments	Kelp; 1 Jogger; 5 Persons; Water clear

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Kelp Stations

Table 3.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for total 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 >1,000 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 Jun 2020	58*	24*	14*	6*	17*	4*	44*
02 Jun 2020	47	19	12	5	32	3	56
03 Jun 2020	47	19	12	5	32	3	56
04 Jun 2020	17*	21*	12*	3*	40*	2*	35*
05 Jun 2020	17*	21*	12*	3*	40*	2*	35*
06 Jun 2020	17*	21*	12*	3*	40*	2*	35*
07 Jun 2020	17*	21*	12*	3*	40*	2*	35*
08 Jun 2020	17*	21*	12*	3*	40*	2*	35*
09 Jun 2020	11	17	11	3	22	2	26
10 Jun 2020	11	17	11	3	22	2	26
11 Jun 2020	10*	17*	6*	2*	15*	2*	31*
12 Jun 2020	10*	17*	6*	2*	15*	2*	31*
13 Jun 2020	10*	17*	6*	2*	15*	2*	31*
14 Jun 2020	10*	17*	6*	2*	15*	2*	31*
15 Jun 2020	10*	17*	6*	2*	15*	2*	31*
16 Jun 2020	7	11	5	3	13	2	26
17 Jun 2020	6*	7*	4*	3*	11*	2*	28*
18 Jun 2020	6*	7*	4*	3*	11*	2*	28*
19 Jun 2020	6*	7*	4*	3*	11*	2*	28*
20 Jun 2020	6*	7*	4*	3*	11*	2*	28*
21 Jun 2020	6*	7*	4*	3*	11*	2*	28*
22 Jun 2020	6*	7*	4*	3*	11*	2*	28*
23 Jun 2020	10	7	4	3	10	2	35
24 Jun 2020	10	7	4	3	10	2	35
25 Jun 2020	8*	6*	4*	3*	15*	2*	33*
26 Jun 2020	8*	6*	4*	3*	15*	2*	33*
27 Jun 2020	8*	6*	4*	3*	15*	2*	33*
28 Jun 2020	8*	6*	4*	3*	15*	2*	33*
29 Jun 2020	8*	6*	4*	3*	15*	2*	33*
30 Jun 2020	14	10	6	7	23	4	33

* Geometric mean calculated using $n < 5$

Table 3.2

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 Jun 2020	10*	6*	4*	3*	6*	2*	8*
02 Jun 2020	7	5	3	3	10	2	7
03 Jun 2020	7	5	3	3	10	2	7
04 Jun 2020	2*	6*	4*	3*	14*	2*	4*
05 Jun 2020	2*	6*	4*	3*	14*	2*	4*
06 Jun 2020	2*	6*	4*	3*	14*	2*	4*
07 Jun 2020	2*	6*	4*	3*	14*	2*	4*
08 Jun 2020	2*	6*	4*	3*	14*	2*	4*
09 Jun 2020	2	5	3	3	10	2	3
10 Jun 2020	2	5	3	3	10	2	3
11 Jun 2020	2*	4*	2*	2*	7*	2*	3*
12 Jun 2020	2*	4*	2*	2*	7*	2*	3*
13 Jun 2020	2*	4*	2*	2*	7*	2*	3*
14 Jun 2020	2*	4*	2*	2*	7*	2*	3*
15 Jun 2020	2*	4*	2*	2*	7*	2*	3*
16 Jun 2020	2	4	2	2	6	2	3
17 Jun 2020	2*	2*	2*	2*	4*	2*	3*
18 Jun 2020	2*	2*	2*	2*	4*	2*	3*
19 Jun 2020	2*	2*	2*	2*	4*	2*	3*
20 Jun 2020	2*	2*	2*	2*	4*	2*	3*
21 Jun 2020	2*	2*	2*	2*	4*	2*	3*
22 Jun 2020	2*	2*	2*	2*	4*	2*	3*
23 Jun 2020	3	2	2	2	4	2	5
24 Jun 2020	3	2	2	2	4	2	5
25 Jun 2020	3*	2*	2*	2*	4*	2*	5*
26 Jun 2020	3*	2*	2*	2*	4*	2*	5*
27 Jun 2020	3*	2*	2*	2*	4*	2*	5*
28 Jun 2020	3*	2*	2*	2*	4*	2*	5*
29 Jun 2020	3*	2*	2*	2*	4*	2*	5*
30 Jun 2020	5	3	3	4	6	3	5

* Geometric mean calculated using $n < 5$

Table 3.3

Summary of compliance with the Ocean Plan's 30-day 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 30 days unless otherwise noted (*). Values >35 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 Jun 2020	13*	11*	4*	5*	18*	2*	22*
02 Jun 2020	9	8	4	4	19	2	17
03 Jun 2020	9	8	4	4	19	2	17
04 Jun 2020	5*	10*	4*	4*	19*	2*	10*
05 Jun 2020	5*	10*	4*	4*	19*	2*	10*
06 Jun 2020	5*	10*	4*	4*	19*	2*	10*
07 Jun 2020	5*	10*	4*	4*	19*	2*	10*
08 Jun 2020	5*	10*	4*	4*	19*	2*	10*
09 Jun 2020	4	8	4	4	12	2	9
10 Jun 2020	4	8	4	4	12	2	9
11 Jun 2020	2*	5*	2*	2*	7*	2*	6*
12 Jun 2020	2*	5*	2*	2*	7*	2*	6*
13 Jun 2020	2*	5*	2*	2*	7*	2*	6*
14 Jun 2020	2*	5*	2*	2*	7*	2*	6*
15 Jun 2020	2*	5*	2*	2*	7*	2*	6*
16 Jun 2020	2	4	2	2	6	2	5
17 Jun 2020	2*	3*	2*	2*	4*	2*	6*
18 Jun 2020	2*	3*	2*	2*	4*	2*	6*
19 Jun 2020	2*	3*	2*	2*	4*	2*	6*
20 Jun 2020	2*	3*	2*	2*	4*	2*	6*
21 Jun 2020	2*	3*	2*	2*	4*	2*	6*
22 Jun 2020	2*	3*	2*	2*	4*	2*	6*
23 Jun 2020	4	3	2	2	3	2	8
24 Jun 2020	4	3	2	2	3	2	8
25 Jun 2020	4*	2*	2*	2*	4*	2*	7*
26 Jun 2020	4*	2*	2*	2*	4*	2*	7*
27 Jun 2020	4*	2*	2*	2*	4*	2*	7*
28 Jun 2020	4*	2*	2*	2*	4*	2*	7*
29 Jun 2020	4*	2*	2*	2*	4*	2*	7*
30 Jun 2020	6	3	3	3	5	3	9

* Geometric mean calculated using n<5

Table 3.4

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

Date	I19	I24	I25	I26	I32	I39	I40
02 Jun 2020	IC	IC	IC	IC	IC	IC	IC
09 Jun 2020	IC	IC	IC	IC	IC	IC	IC
16 Jun 2020	IC	IC	IC	IC	IC	IC	IC
23 Jun 2020	IC	IC	IC	IC	IC	IC	IC
30 Jun 2020	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.5

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 Jun 2020	IC	IC	IC	IC	IC	IC	IC
09 Jun 2020	IC	IC	IC	IC	IC	IC	IC
16 Jun 2020	IC	IC	IC	IC	IC	IC	IC
23 Jun 2020	IC	IC	IC	IC	IC	IC	IC
30 Jun 2020	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.6

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

Date	I19	I24	I25	I26	I32	I39	I40
02 Jun 2020	IC	IC	IC	IC	IC	IC	IC
09 Jun 2020	IC	IC	IC	IC	IC	IC	IC
16 Jun 2020	IC	IC	IC	IC	IC	IC	IC
23 Jun 2020	IC	IC	IC	IC	IC	IC	IC
30 Jun 2020	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.7

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

Date	I19	I24	I25	I26	I32	I39	I40
02 Jun 2020	IC	IC	IC	IC	IC	IC	IC
09 Jun 2020	IC	IC	IC	IC	IC	IC	IC
16 Jun 2020	IC	IC	IC	IC	IC	IC	IC
23 Jun 2020	IC	IC	IC	IC	IC	IC	IC
30 Jun 2020	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.8

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; the fecal:total coliform ratio (F:T) is unitless; values for temperature (Temp, °C), transmissivity (XMS, %), dissolved oxygen (DO, mg/L), salinity (Sal, ppt) and pH were extracted from CTD profile data for depths closest to those at which the bacteriological samples were collected. Comments follow the data summary.

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
I19	02 Jun 2020	1104	2	<20	<2	<2	0.10	14.9	54.40	7.5	33.64	8.0
I19	02 Jun 2020	1104	6	<20	<2	<2	0.10	12.4	63.46	6.4	33.73	7.9
I19	02 Jun 2020	1104	11	<20	<2	2e	0.10	11.6	32.20	4.7	33.66	7.8
I19	09 Jun 2020	1210	2	<2	<2	<2	1.00	16.4	67.82	7.6	33.70	8.1
I19	09 Jun 2020	1210	6	<2	<2	<2	1.00	14.4	61.65	6.7	33.76	8.0
I19	09 Jun 2020	1210	11	<2	<2	<2	1.00	11.9	52.68	5.2	33.75	7.8
I19	16 Jun 2020	1106	2	<2	<2	<2	1.00	18.6	79.36	7.9	33.66	8.1
I19	16 Jun 2020	1106	6	<2	<2	<2	1.00	14.3	72.47	7.8	34.10	8.1
I19	16 Jun 2020	1106	11	<2	<2	<2	1.00	12.5	37.92	5.6	33.68	7.9
I19	23 Jun 2020	1058	2	80e	26e	82	0.32	16.5	68.40	7.0	33.50	8.0
I19	23 Jun 2020	1058	6	60e	<2	8e	0.03	12.3	73.57	6.0	33.70	7.9
I19	23 Jun 2020	1058	11	40e	2e	2e	0.05	12.1	55.77	4.5	33.66	7.8
I19	30 Jun 2020	1032	2	140e	30e	50	0.21	17.8	72.27	8.6	33.64	8.2
I19	30 Jun 2020	1032	6	180e	22e	22e	0.12	17.5	72.95	8.4	33.66	8.1
I19	30 Jun 2020	1032	11	60e	34e	34e	0.57	15.6	45.65	7.7	33.77	8.1
I24	02 Jun 2020	1127	2	<2	<2	<2	1.00	15.5	73.36	7.3	33.62	8.0
I24	02 Jun 2020	1127	6	20e	<2	<2	0.10	12.7	78.05	6.1	33.64	7.9
I24	02 Jun 2020	1127	11	4e	<2	<2	0.50	11.9	81.81	5.6	33.65	7.9
I24	09 Jun 2020	1236	2	<2	<2	<2	1.00	17.1	70.16	8.0	33.68	8.1
I24	09 Jun 2020	1236	6	<20	<2	<2	0.10	13.8	64.81	6.3	33.75	7.9
I24	09 Jun 2020	1236	11	<2	2e	4e	1.00	12.0	25.68	4.6	33.70	7.8
I24	16 Jun 2020	1121	2	<2	<2	<2	1.00	18.8	80.07	8.0	33.67	8.2
I24	16 Jun 2020	1121	6	<2	<2	<2	1.00	17.4	78.31	8.4	33.76	8.2
I24	16 Jun 2020	1121	11	<2	<2	<2	1.00	13.4	71.98	6.8	33.71	8.0
I24	23 Jun 2020	1125	2	<2	<2	<2	1.00	18.0	76.66	7.8	33.67	8.2
I24	23 Jun 2020	1125	6	<20	<2	<2	0.10	12.9	78.30	5.9	33.73	7.9
I24	23 Jun 2020	1125	11	<2	<2	4e	1.00	12.0	55.45	4.3	33.69	7.8
I24	30 Jun 2020	1052	2	12e	2e	12e	0.17	17.9	75.88	8.6	33.66	8.2
I24	30 Jun 2020	1052	6	120e	22e	10e	0.18	16.7	75.18	8.4	33.67	8.1
I24	30 Jun 2020	1052	11	160e	30e	20e	0.19	15.9	62.11	7.8	33.69	8.1
I25	02 Jun 2020	1135	2	<2	2e	<2	1.00	15.8	70.14	7.2	33.62	8.0
I25	02 Jun 2020	1135	6	<2	<2	<2	1.00	12.9	77.14	6.8	33.70	8.0
I25	02 Jun 2020	1135	9	<20	<2	<2	0.10	11.9	82.18	5.5	33.62	7.9
I25	09 Jun 2020	1246	2	<20	<2	<2	0.10	16.5	69.38	8.0	33.72	8.1
I25	09 Jun 2020	1246	6	<2	<2	2e	1.00	14.6	64.09	6.8	33.82	8.0
I25	09 Jun 2020	1246	9	4e	<2	<2	0.50	12.4	46.49	4.9	33.72	7.8

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
I25	16 Jun 2020	1128	2	<2	<2	<2	1.00	18.8	80.42	8.1	33.68	8.2
I25	16 Jun 2020	1128	6	<2	<2	<2	1.00	17.6	78.36	8.1	33.85	8.2
I25	16 Jun 2020	1128	9	2e	<2	2e	1.00	14.1	63.42	7.4	34.00	8.1
I25	23 Jun 2020	1130	2	<2	<2	<2	1.00	18.0	76.73	7.7	33.70	8.2
I25	23 Jun 2020	1130	6	2e	<2	<2	1.00	13.0	69.65	7.8	33.68	8.1
I25	23 Jun 2020	1130	9	<2	<2	<2	1.00	12.5	77.09	6.4	33.66	8.0
I25	30 Jun 2020	1059	2	<2	<2	6e	1.00	18.0	76.98	8.5	33.65	8.2
I25	30 Jun 2020	1059	6	<20	10e	4e	0.50	16.7	73.95	8.5	33.68	8.1
I25	30 Jun 2020	1059	9	100e	16e	16e	0.16	16.5	67.83	8.1	33.64	8.1
I26	02 Jun 2020	1146	2	<2	<2	<2	1.00	15.2	70.70	7.4	33.67	8.0
I26	02 Jun 2020	1146	6	<2	<2	<2	1.00	12.2	77.14	6.2	33.75	7.9
I26	02 Jun 2020	1146	9	<2	<2	<2	1.00	11.8	83.22	5.5	33.67	7.9
I26	09 Jun 2020	1300	2	<2	<2	<2	1.00	16.9	69.32	8.1	33.66	8.1
I26	09 Jun 2020	1300	6	<2	<2	<2	1.00	15.8	65.37	7.8	33.72	8.1
I26	09 Jun 2020	1300	9	4e	2e	<2	0.50	12.5	60.97	6.1	33.75	7.9
I26	16 Jun 2020	1138	2	<2	<2	<2	1.00	18.8	79.19	8.2	33.67	8.1
I26	16 Jun 2020	1138	6	<20	2e	<2	0.10	18.0	77.12	7.5	33.80	8.1
I26	16 Jun 2020	1138	9	<2	<2	<2	1.00	12.9	65.46	6.7	33.66	7.9
I26	23 Jun 2020	1140	2	<2	<2	<2	1.00	18.0	77.52	7.8	33.69	8.2
I26	23 Jun 2020	1140	6	4e	2e	<2	0.50	12.6	73.87	7.0	33.68	8.0
I26	23 Jun 2020	1140	9	2e	2e	<2	1.00	12.3	80.95	6.0	33.65	7.9
I26	30 Jun 2020	1109	2	40e	30e	6e	0.75	18.1	70.19	8.6	33.63	8.2
I26	30 Jun 2020	1109	6	120e	62	16e	0.52	17.2	71.73	8.5	33.66	8.1
I26	30 Jun 2020	1109	9	220e	42	22e	0.19	17.0	71.32	8.3	33.65	8.1
I32	02 Jun 2020	1200	2	<200	12e	16e	0.06	14.2	60.29	7.6	33.66	8.0
I32	02 Jun 2020	1200	6	800e	120e	48	0.15	12.7	60.19	6.6	33.69	7.9
I32	02 Jun 2020	1200	9	200e	18e	16e	0.09	11.8	46.06	5.4	33.66	7.9
I32	09 Jun 2020	1317	2	<2	<2	<2	1.00	16.4	69.71	7.9	33.67	8.1
I32	09 Jun 2020	1317	6	<2	<2	<2	1.00	15.3	63.39	7.5	33.70	8.0
I32	09 Jun 2020	1317	9	<2	<2	<2	1.00	14.4	44.78	7.2	33.72	7.9
I32	16 Jun 2020	1150	2	<2	<2	<2	1.00	19.1	71.20	8.3	33.66	8.2
I32	16 Jun 2020	1150	6	<2	<2	<2	1.00	18.9	71.00	8.2	33.66	8.2
I32	16 Jun 2020	1150	9	<20	<2	<2	0.10	14.1	61.79	6.7	34.16	8.1
I32	23 Jun 2020	1154	2	<20	<2	<2	0.10	17.7	74.33	8.0	33.69	8.2
I32	23 Jun 2020	1154	6	<2	<2	<2	1.00	13.4	72.24	7.5	33.84	8.1
I32	23 Jun 2020	1154	9	<2	<2	<2	1.00	12.2	78.29	6.0	33.71	8.0
I32	30 Jun 2020	1121	2	<20	4e	<2	0.20	18.1	70.19	8.4	33.64	8.2
I32	30 Jun 2020	1121	6	120e	32e	14e	0.27	17.2	71.84	8.6	33.66	8.1
I32	30 Jun 2020	1121	9	240e	28e	40	0.12	17.0	71.86	8.4	33.66	8.1
I39	02 Jun 2020	1038	2	<2	<2	<2	1.00	15.3	76.85	6.7	33.56	8.0
I39	02 Jun 2020	1038	12	<2	<2	<2	1.00	11.3	91.10	5.0	33.68	7.9

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
I39	02 Jun 2020	1038	18	<2	<2	<2	1.00	11.2	90.07	4.4	33.72	7.8
I39	09 Jun 2020	1144	2	<2	<2	<2	1.00	17.4	71.22	8.2	33.68	8.1
I39	09 Jun 2020	1144	12	<2	<2	<2	1.00	11.6	85.07	5.0	33.73	7.8
I39	09 Jun 2020	1144	18	<2	<2	<2	1.00	11.3	85.17	4.7	33.71	7.8
I39	16 Jun 2020	1037	2	<2	<2	<2	1.00	19.5	83.29	8.0	33.68	8.2
I39	16 Jun 2020	1037	12	<2	<2	<2	1.00	17.6	75.88	8.5	33.70	8.1
I39	16 Jun 2020	1037	18	<2	<2	<2	1.00	15.4	76.46	7.5	33.88	8.1
I39	23 Jun 2020	1036	2	<2	<2	<2	1.00	18.2	79.93	7.9	33.71	8.2
I39	23 Jun 2020	1036	12	<2	<2	<2	1.00	13.2	74.60	7.4	33.80	8.1
I39	23 Jun 2020	1036	18	2e	<2	<2	1.00	11.6	88.08	4.9	33.70	7.9
I39	30 Jun 2020	1014	2	40e	8e	26e	0.20	17.9	75.69	8.5	33.65	8.2
I39	30 Jun 2020	1014	12	120e	12e	30e	0.10	13.9	75.38	7.0	33.81	8.0
I39	30 Jun 2020	1014	18	<20	<2	<2	0.10	12.8	79.22	5.1	33.73	7.8
I40	02 Jun 2020	1117	2	<20	<2	<2	0.10	15.2	66.06	7.5	33.66	8.0
I40	02 Jun 2020	1117	6	<200	6e	4e	0.03	13.0	61.37	6.5	33.76	7.9
I40	02 Jun 2020	1117	9	<200	4e	12e	0.02	11.9	27.24	4.8	33.66	7.8
I40	09 Jun 2020	1224	2	<20	<2	<2	0.10	13.8	44.67	6.5	33.73	7.9
I40	09 Jun 2020	1224	6	2e	<2	2e	1.00	12.2	43.10	4.8	33.67	7.8
I40	09 Jun 2020	1224	9	2e	<2	10e	1.00	11.9	48.78	4.7	33.65	7.8
I40	16 Jun 2020	1115	2	<2	<2	<2	1.00	18.8	79.15	8.0	33.66	8.1
I40	16 Jun 2020	1115	6	<20	<2	<2	0.10	16.8	64.45	7.1	33.84	8.1
I40	16 Jun 2020	1115	9	20e	<2	4e	0.10	12.6	42.43	5.7	33.73	7.9
I40	23 Jun 2020	1111	2	<200	76	96	0.38	16.5	62.10	6.9	33.44	8.0
I40	23 Jun 2020	1111	6	<20	2e	4e	0.10	12.8	75.29	5.5	33.78	7.9
I40	23 Jun 2020	1111	9	<20	<2	6e	0.10	12.1	57.42	4.4	33.67	7.8
I40	30 Jun 2020	1042	2	<20	<2	<2	0.10	17.8	76.37	8.6	33.66	8.2
I40	30 Jun 2020	1042	6	40	8e	8e	0.20	17.3	77.68	8.5	33.67	8.1
I40	30 Jun 2020	1042	9	40e	24e	42	0.60	17.1	76.64	8.2	33.68	8.1

ns = not sampled

ND = no data

Table 3.9

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

Station	Date	Parameter	Value
I19	02 Jun 2020	Depth (m)	11
I19	02 Jun 2020	Arrive Time	1104
I19	02 Jun 2020	Depart Time	1106
I19	02 Jun 2020	Air Temp (C)	17
I19	02 Jun 2020	Weather	Partly Cloudy
I19	02 Jun 2020	Visibility (mi)	7
I19	02 Jun 2020	Wind Speed (kts)	6
I19	02 Jun 2020	Wind Dir	S
I19	02 Jun 2020	Water Color	Green
I19	02 Jun 2020	Wave Ht Low (ft)	3
I19	02 Jun 2020	Wave Period (sec)	9
I19	02 Jun 2020	Sea State	Calm
I19	02 Jun 2020	High Tide (ft)	4.07
I19	02 Jun 2020	High Tide Time	715
I19	02 Jun 2020	Low Tide (ft)	0.64
I19	02 Jun 2020	Low Tide Time	1303
I19	02 Jun 2020	Comments	Sea lion on station
I19	09 Jun 2020	Depth (m)	10
I19	09 Jun 2020	Arrive Time	1210
I19	09 Jun 2020	Depart Time	1212
I19	09 Jun 2020	Air Temp (C)	20
I19	09 Jun 2020	Weather	Clear
I19	09 Jun 2020	Visibility (mi)	12
I19	09 Jun 2020	Wind Speed (kts)	9
I19	09 Jun 2020	Wind Dir	NW
I19	09 Jun 2020	Water Color	Green
I19	09 Jun 2020	Wave Ht Low (ft)	5
I19	09 Jun 2020	Wave Period (sec)	16
I19	09 Jun 2020	Sea State	Calm
I19	09 Jun 2020	High Tide (ft)	3.56
I19	09 Jun 2020	High Tide Time	1345
I19	09 Jun 2020	Low Tide (ft)	-0.63
I19	09 Jun 2020	Low Tide Time	659
I19	09 Jun 2020	Comments	Kelp
I19	16 Jun 2020	Depth (m)	10
I19	16 Jun 2020	Arrive Time	1106
I19	16 Jun 2020	Depart Time	1107
I19	16 Jun 2020	Air Temp (C)	18
I19	16 Jun 2020	Weather	Continuous layer of clouds
I19	16 Jun 2020	Visibility (mi)	8
I19	16 Jun 2020	Wind Speed (kts)	8
I19	16 Jun 2020	Wind Dir	W
I19	16 Jun 2020	Water Color	Greenish-Brown
I19	16 Jun 2020	Wave Ht Low (ft)	2
I19	16 Jun 2020	Wave Period (sec)	9
I19	16 Jun 2020	Sea State	Confused swell
I19	16 Jun 2020	High Tide (ft)	3.31
I19	16 Jun 2020	High Tide Time	708
I19	16 Jun 2020	Low Tide (ft)	1.5

Station	Date	Parameter	Value
I19	16 Jun 2020	Low Tide Time	1234
I19	16 Jun 2020	Comments	none
I19	23 Jun 2020	Depth (m)	10
I19	23 Jun 2020	Arrive Time	1058
I19	23 Jun 2020	Depart Time	1101
I19	23 Jun 2020	Air Temp (C)	18
I19	23 Jun 2020	Weather	Partly Cloudy
I19	23 Jun 2020	Visibility (mi)	9
I19	23 Jun 2020	Wind Speed (kts)	10
I19	23 Jun 2020	Wind Dir	NW
I19	23 Jun 2020	Water Color	Green
I19	23 Jun 2020	Wave Ht Low (ft)	4
I19	23 Jun 2020	Wave Period (sec)	13
I19	23 Jun 2020	Sea State	Calm
I19	23 Jun 2020	High Tide (ft)	3.6
I19	23 Jun 2020	High Tide Time	1215
I19	23 Jun 2020	Low Tide (ft)	-0.88
I19	23 Jun 2020	Low Tide Time	544
I19	23 Jun 2020	Comments	none
I24	02 Jun 2020	Depth (m)	10
I24	02 Jun 2020	Arrive Time	1127
I24	02 Jun 2020	Depart Time	1130
I24	02 Jun 2020	Air Temp (C)	17
I24	02 Jun 2020	Weather	Partly Cloudy
I24	02 Jun 2020	Visibility (mi)	7
I24	02 Jun 2020	Wind Speed (kts)	4
I24	02 Jun 2020	Wind Dir	S
I24	02 Jun 2020	Water Color	Green
I24	02 Jun 2020	Wave Ht Low (ft)	3
I24	02 Jun 2020	Wave Period (sec)	9
I24	02 Jun 2020	Sea State	Calm
I24	02 Jun 2020	High Tide (ft)	4.07
I24	02 Jun 2020	High Tide Time	715
I24	02 Jun 2020	Low Tide (ft)	0.64
I24	02 Jun 2020	Low Tide Time	1303
I24	02 Jun 2020	Comments	none
I24	09 Jun 2020	Depth (m)	11
I24	09 Jun 2020	Arrive Time	1236
I24	09 Jun 2020	Depart Time	1239
I24	09 Jun 2020	Air Temp (C)	21
I24	09 Jun 2020	Weather	Haze
I24	09 Jun 2020	Visibility (mi)	9
I24	09 Jun 2020	Wind Speed (kts)	10
I24	09 Jun 2020	Wind Dir	NW
I24	09 Jun 2020	Water Color	Green
I24	09 Jun 2020	Wave Ht Low (ft)	5
I24	09 Jun 2020	Wave Period (sec)	16
I24	09 Jun 2020	Sea State	Calm
I24	09 Jun 2020	High Tide (ft)	3.56
I24	09 Jun 2020	High Tide Time	1345
I24	09 Jun 2020	Low Tide (ft)	-0.63
I24	09 Jun 2020	Low Tide Time	659

Station	Date	Parameter	Value
I24	09 Jun 2020	Comments	none
I24	16 Jun 2020	Depth (m)	10
I24	16 Jun 2020	Arrive Time	1121
I24	16 Jun 2020	Depart Time	1124
I24	16 Jun 2020	Air Temp (C)	17
I24	16 Jun 2020	Weather	Continuous layer of clouds
I24	16 Jun 2020	Visibility (mi)	8
I24	16 Jun 2020	Wind Speed (kts)	4
I24	16 Jun 2020	Wind Dir	S
I24	16 Jun 2020	Water Color	Greenish-Brown
I24	16 Jun 2020	Wave Ht Low (ft)	2
I24	16 Jun 2020	Wave Period (sec)	9
I24	16 Jun 2020	Sea State	Confused swell
I24	16 Jun 2020	High Tide (ft)	3.31
I24	16 Jun 2020	High Tide Time	708
I24	16 Jun 2020	Low Tide (ft)	1.5
I24	16 Jun 2020	Low Tide Time	1234
I24	16 Jun 2020	Comments	none
I24	23 Jun 2020	Depth (m)	10
I24	23 Jun 2020	Arrive Time	1125
I24	23 Jun 2020	Depart Time	1126
I24	23 Jun 2020	Air Temp (C)	18
I24	23 Jun 2020	Weather	Partly Cloudy
I24	23 Jun 2020	Visibility (mi)	9
I24	23 Jun 2020	Wind Speed (kts)	8
I24	23 Jun 2020	Wind Dir	NW
I24	23 Jun 2020	Water Color	Green
I24	23 Jun 2020	Wave Ht Low (ft)	4
I24	23 Jun 2020	Wave Period (sec)	13
I24	23 Jun 2020	Sea State	Calm
I24	23 Jun 2020	High Tide (ft)	3.6
I24	23 Jun 2020	High Tide Time	1215
I24	23 Jun 2020	Low Tide (ft)	-0.88
I24	23 Jun 2020	Low Tide Time	544
I24	23 Jun 2020	Comments	none
I25	02 Jun 2020	Depth (m)	9
I25	02 Jun 2020	Arrive Time	1135
I25	02 Jun 2020	Depart Time	1138
I25	02 Jun 2020	Air Temp (C)	17
I25	02 Jun 2020	Weather	Fog
I25	02 Jun 2020	Visibility (mi)	3
I25	02 Jun 2020	Wind Speed (kts)	2
I25	02 Jun 2020	Wind Dir	S
I25	02 Jun 2020	Water Color	Green
I25	02 Jun 2020	Wave Ht Low (ft)	3
I25	02 Jun 2020	Wave Period (sec)	9
I25	02 Jun 2020	Sea State	Calm
I25	02 Jun 2020	High Tide (ft)	4.07
I25	02 Jun 2020	High Tide Time	715
I25	02 Jun 2020	Low Tide (ft)	0.64
I25	02 Jun 2020	Low Tide Time	1303
I25	02 Jun 2020	Comments	none

Station	Date	Parameter	Value
I25	09 Jun 2020	Depth (m)	9
I25	09 Jun 2020	Arrive Time	1246
I25	09 Jun 2020	Depart Time	1248
I25	09 Jun 2020	Air Temp (C)	21
I25	09 Jun 2020	Weather	Haze
I25	09 Jun 2020	Visibility (mi)	9
I25	09 Jun 2020	Wind Speed (kts)	12
I25	09 Jun 2020	Wind Dir	NW
I25	09 Jun 2020	Water Color	Green
I25	09 Jun 2020	Wave Ht Low (ft)	5
I25	09 Jun 2020	Wave Period (sec)	16
I25	09 Jun 2020	Sea State	Calm
I25	09 Jun 2020	High Tide (ft)	3.56
I25	09 Jun 2020	High Tide Time	1345
I25	09 Jun 2020	Low Tide (ft)	-0.63
I25	09 Jun 2020	Low Tide Time	659
I25	09 Jun 2020	Comments	none
I25	16 Jun 2020	Depth (m)	9
I25	16 Jun 2020	Arrive Time	1128
I25	16 Jun 2020	Depart Time	1130
I25	16 Jun 2020	Air Temp (C)	17
I25	16 Jun 2020	Weather	Continuous layer of clouds
I25	16 Jun 2020	Visibility (mi)	9
I25	16 Jun 2020	Wind Speed (kts)	7
I25	16 Jun 2020	Wind Dir	S
I25	16 Jun 2020	Water Color	Greenish-Brown
I25	16 Jun 2020	Wave Ht Low (ft)	2
I25	16 Jun 2020	Wave Period (sec)	9
I25	16 Jun 2020	Sea State	Light chop
I25	16 Jun 2020	High Tide (ft)	3.31
I25	16 Jun 2020	High Tide Time	708
I25	16 Jun 2020	Low Tide (ft)	1.5
I25	16 Jun 2020	Low Tide Time	1234
I25	16 Jun 2020	Comments	none
I25	23 Jun 2020	Depth (m)	10
I25	23 Jun 2020	Arrive Time	1130
I25	23 Jun 2020	Depart Time	1133
I25	23 Jun 2020	Air Temp (C)	18
I25	23 Jun 2020	Weather	Overcast
I25	23 Jun 2020	Visibility (mi)	8
I25	23 Jun 2020	Wind Speed (kts)	11
I25	23 Jun 2020	Wind Dir	NW
I25	23 Jun 2020	Water Color	Green
I25	23 Jun 2020	Wave Ht Low (ft)	4
I25	23 Jun 2020	Wave Period (sec)	13
I25	23 Jun 2020	Sea State	Calm
I25	23 Jun 2020	High Tide (ft)	3.6
I25	23 Jun 2020	High Tide Time	1215
I25	23 Jun 2020	Low Tide (ft)	-0.88
I25	23 Jun 2020	Low Tide Time	544
I25	23 Jun 2020	Comments	none

Station	Date	Parameter	Value
I26	02 Jun 2020	Depth (m)	9
I26	02 Jun 2020	Arrive Time	1146
I26	02 Jun 2020	Depart Time	1148
I26	02 Jun 2020	Air Temp (C)	17
I26	02 Jun 2020	Weather	Fog
I26	02 Jun 2020	Visibility (mi)	3
I26	02 Jun 2020	Wind Speed (kts)	3
I26	02 Jun 2020	Wind Dir	SW
I26	02 Jun 2020	Water Color	Green
I26	02 Jun 2020	Wave Ht Low (ft)	3
I26	02 Jun 2020	Wave Period (sec)	9
I26	02 Jun 2020	Sea State	Calm
I26	02 Jun 2020	High Tide (ft)	4.07
I26	02 Jun 2020	High Tide Time	715
I26	02 Jun 2020	Low Tide (ft)	0.64
I26	02 Jun 2020	Low Tide Time	1303
I26	02 Jun 2020	Comments	none
I26	09 Jun 2020	Depth (m)	10
I26	09 Jun 2020	Arrive Time	1300
I26	09 Jun 2020	Depart Time	1302
I26	09 Jun 2020	Air Temp (C)	20
I26	09 Jun 2020	Weather	Haze
I26	09 Jun 2020	Visibility (mi)	9
I26	09 Jun 2020	Wind Speed (kts)	13
I26	09 Jun 2020	Wind Dir	NW
I26	09 Jun 2020	Water Color	Green
I26	09 Jun 2020	Wave Ht Low (ft)	5
I26	09 Jun 2020	Wave Period (sec)	16
I26	09 Jun 2020	Sea State	Calm
I26	09 Jun 2020	High Tide (ft)	3.56
I26	09 Jun 2020	High Tide Time	1345
I26	09 Jun 2020	Low Tide (ft)	-0.63
I26	09 Jun 2020	Low Tide Time	659
I26	09 Jun 2020	Comments	none
I26	16 Jun 2020	Depth (m)	9
I26	16 Jun 2020	Arrive Time	1138
I26	16 Jun 2020	Depart Time	1140
I26	16 Jun 2020	Air Temp (C)	17
I26	16 Jun 2020	Weather	Continuous layer of clouds
I26	16 Jun 2020	Visibility (mi)	9
I26	16 Jun 2020	Wind Speed (kts)	12
I26	16 Jun 2020	Wind Dir	S
I26	16 Jun 2020	Water Color	Green
I26	16 Jun 2020	Wave Ht Low (ft)	2
I26	16 Jun 2020	Wave Period (sec)	9
I26	16 Jun 2020	Sea State	Light chop
I26	16 Jun 2020	High Tide (ft)	3.31
I26	16 Jun 2020	High Tide Time	708
I26	16 Jun 2020	Low Tide (ft)	1.5
I26	16 Jun 2020	Low Tide Time	1234
I26	16 Jun 2020	Comments	none
I26	23 Jun 2020	Depth (m)	9

Station	Date	Parameter	Value
I26	23 Jun 2020	Arrive Time	1140
I26	23 Jun 2020	Depart Time	1144
I26	23 Jun 2020	Air Temp (C)	18
I26	23 Jun 2020	Weather	Overcast
I26	23 Jun 2020	Visibility (mi)	8
I26	23 Jun 2020	Wind Speed (kts)	11
I26	23 Jun 2020	Wind Dir	NW
I26	23 Jun 2020	Water Color	Green
I26	23 Jun 2020	Wave Ht Low (ft)	4
I26	23 Jun 2020	Wave Period (sec)	13
I26	23 Jun 2020	Sea State	Calm
I26	23 Jun 2020	High Tide (ft)	3.6
I26	23 Jun 2020	High Tide Time	1215
I26	23 Jun 2020	Low Tide (ft)	-0.88
I26	23 Jun 2020	Low Tide Time	544
I26	23 Jun 2020	Comments	none
I32	02 Jun 2020	Depth (m)	10
I32	02 Jun 2020	Arrive Time	1200
I32	02 Jun 2020	Depart Time	1204
I32	02 Jun 2020	Air Temp (C)	17
I32	02 Jun 2020	Weather	Fog
I32	02 Jun 2020	Visibility (mi)	3
I32	02 Jun 2020	Wind Speed (kts)	4
I32	02 Jun 2020	Wind Dir	W
I32	02 Jun 2020	Water Color	Green
I32	02 Jun 2020	Wave Ht Low (ft)	3
I32	02 Jun 2020	Wave Period (sec)	9
I32	02 Jun 2020	Sea State	Calm
I32	02 Jun 2020	High Tide (ft)	4.07
I32	02 Jun 2020	High Tide Time	715
I32	02 Jun 2020	Low Tide (ft)	0.64
I32	02 Jun 2020	Low Tide Time	1303
I32	02 Jun 2020	Comments	none
I32	09 Jun 2020	Depth (m)	10
I32	09 Jun 2020	Arrive Time	1317
I32	09 Jun 2020	Depart Time	1321
I32	09 Jun 2020	Air Temp (C)	20
I32	09 Jun 2020	Weather	Haze
I32	09 Jun 2020	Visibility (mi)	9
I32	09 Jun 2020	Wind Speed (kts)	8
I32	09 Jun 2020	Wind Dir	NW
I32	09 Jun 2020	Water Color	Green
I32	09 Jun 2020	Wave Ht Low (ft)	5
I32	09 Jun 2020	Wave Period (sec)	16
I32	09 Jun 2020	Sea State	Calm
I32	09 Jun 2020	High Tide (ft)	3.56
I32	09 Jun 2020	High Tide Time	1345
I32	09 Jun 2020	Low Tide (ft)	-0.63
I32	09 Jun 2020	Low Tide Time	659
I32	09 Jun 2020	Comments	none
I32	16 Jun 2020	Depth (m)	9
I32	16 Jun 2020	Arrive Time	1150

Station	Date	Parameter	Value
I32	16 Jun 2020	Depart Time	1152
I32	16 Jun 2020	Air Temp (C)	18
I32	16 Jun 2020	Weather	Continuous layer of clouds
I32	16 Jun 2020	Visibility (mi)	9
I32	16 Jun 2020	Wind Speed (kts)	9
I32	16 Jun 2020	Wind Dir	SW
I32	16 Jun 2020	Water Color	Green
I32	16 Jun 2020	Wave Ht Low (ft)	2
I32	16 Jun 2020	Wave Period (sec)	9
I32	16 Jun 2020	Sea State	Light chop
I32	16 Jun 2020	High Tide (ft)	3.31
I32	16 Jun 2020	High Tide Time	708
I32	16 Jun 2020	Low Tide (ft)	1.5
I32	16 Jun 2020	Low Tide Time	1234
I32	16 Jun 2020	Comments	none
I32	23 Jun 2020	Depth (m)	10
I32	23 Jun 2020	Arrive Time	1154
I32	23 Jun 2020	Depart Time	1159
I32	23 Jun 2020	Air Temp (C)	18
I32	23 Jun 2020	Weather	Partly Cloudy
I32	23 Jun 2020	Visibility (mi)	12
I32	23 Jun 2020	Wind Speed (kts)	11
I32	23 Jun 2020	Wind Dir	NW
I32	23 Jun 2020	Water Color	Green
I32	23 Jun 2020	Wave Ht Low (ft)	4
I32	23 Jun 2020	Wave Period (sec)	13
I32	23 Jun 2020	Sea State	Calm
I32	23 Jun 2020	High Tide (ft)	3.6
I32	23 Jun 2020	High Tide Time	1215
I32	23 Jun 2020	Low Tide (ft)	-0.88
I32	23 Jun 2020	Low Tide Time	544
I32	23 Jun 2020	Comments	none
I39	02 Jun 2020	Depth (m)	19
I39	02 Jun 2020	Arrive Time	1038
I39	02 Jun 2020	Depart Time	1043
I39	02 Jun 2020	Air Temp (C)	17
I39	02 Jun 2020	Weather	Partly Cloudy
I39	02 Jun 2020	Visibility (mi)	7
I39	02 Jun 2020	Wind Speed (kts)	4
I39	02 Jun 2020	Wind Dir	SW
I39	02 Jun 2020	Water Color	Green
I39	02 Jun 2020	Wave Ht Low (ft)	3
I39	02 Jun 2020	Wave Period (sec)	9
I39	02 Jun 2020	Sea State	Calm
I39	02 Jun 2020	High Tide (ft)	4.07
I39	02 Jun 2020	High Tide Time	715
I39	02 Jun 2020	Low Tide (ft)	0.64
I39	02 Jun 2020	Low Tide Time	1303
I39	02 Jun 2020	Comments	none
I39	09 Jun 2020	Depth (m)	21
I39	09 Jun 2020	Arrive Time	1144
I39	09 Jun 2020	Depart Time	1147

Station	Date	Parameter	Value
I39	09 Jun 2020	Air Temp (C)	20
I39	09 Jun 2020	Weather	Clear
I39	09 Jun 2020	Visibility (mi)	12
I39	09 Jun 2020	Wind Speed (kts)	10
I39	09 Jun 2020	Wind Dir	NW
I39	09 Jun 2020	Water Color	Green
I39	09 Jun 2020	Wave Ht Low (ft)	5
I39	09 Jun 2020	Wave Period (sec)	16
I39	09 Jun 2020	Sea State	Calm
I39	09 Jun 2020	High Tide (ft)	3.56
I39	09 Jun 2020	High Tide Time	1345
I39	09 Jun 2020	Low Tide (ft)	-0.63
I39	09 Jun 2020	Low Tide Time	659
I39	09 Jun 2020	Comments	none
I39	16 Jun 2020	Depth (m)	18
I39	16 Jun 2020	Arrive Time	1037
I39	16 Jun 2020	Depart Time	1039
I39	16 Jun 2020	Air Temp (C)	17
I39	16 Jun 2020	Weather	Continuous layer of clouds
I39	16 Jun 2020	Visibility (mi)	6
I39	16 Jun 2020	Wind Speed (kts)	6
I39	16 Jun 2020	Wind Dir	SE
I39	16 Jun 2020	Water Color	Greenish-Blue
I39	16 Jun 2020	Wave Ht Low (ft)	2
I39	16 Jun 2020	Wave Period (sec)	9
I39	16 Jun 2020	Sea State	Confused swell
I39	16 Jun 2020	High Tide (ft)	3.31
I39	16 Jun 2020	High Tide Time	708
I39	16 Jun 2020	Low Tide (ft)	1.5
I39	16 Jun 2020	Low Tide Time	1234
I39	16 Jun 2020	Comments	Kelp
I39	23 Jun 2020	Depth (m)	19
I39	23 Jun 2020	Arrive Time	1036
I39	23 Jun 2020	Depart Time	1040
I39	23 Jun 2020	Air Temp (C)	18
I39	23 Jun 2020	Weather	Partly Cloudy
I39	23 Jun 2020	Visibility (mi)	7
I39	23 Jun 2020	Wind Speed (kts)	8
I39	23 Jun 2020	Wind Dir	NW
I39	23 Jun 2020	Water Color	Green
I39	23 Jun 2020	Wave Ht Low (ft)	4
I39	23 Jun 2020	Wave Period (sec)	13
I39	23 Jun 2020	Sea State	Calm
I39	23 Jun 2020	High Tide (ft)	3.6
I39	23 Jun 2020	High Tide Time	1215
I39	23 Jun 2020	Low Tide (ft)	-0.88
I39	23 Jun 2020	Low Tide Time	544
I39	23 Jun 2020	Comments	Boats
I40	02 Jun 2020	Depth (m)	9
I40	02 Jun 2020	Arrive Time	1117
I40	02 Jun 2020	Depart Time	1121
I40	02 Jun 2020	Air Temp (C)	17

Station	Date	Parameter	Value
I40	02 Jun 2020	Weather	Partly Cloudy
I40	02 Jun 2020	Visibility (mi)	7
I40	02 Jun 2020	Wind Speed (kts)	4
I40	02 Jun 2020	Wind Dir	S
I40	02 Jun 2020	Water Color	Green
I40	02 Jun 2020	Wave Ht Low (ft)	3
I40	02 Jun 2020	Wave Period (sec)	9
I40	02 Jun 2020	Sea State	Calm
I40	02 Jun 2020	High Tide (ft)	4.07
I40	02 Jun 2020	High Tide Time	715
I40	02 Jun 2020	Low Tide (ft)	0.64
I40	02 Jun 2020	Low Tide Time	1303
I40	02 Jun 2020	Comments	none
I40	09 Jun 2020	Depth (m)	10
I40	09 Jun 2020	Arrive Time	1224
I40	09 Jun 2020	Depart Time	1228
I40	09 Jun 2020	Air Temp (C)	20
I40	09 Jun 2020	Weather	Haze
I40	09 Jun 2020	Visibility (mi)	9
I40	09 Jun 2020	Wind Speed (kts)	11
I40	09 Jun 2020	Wind Dir	NW
I40	09 Jun 2020	Water Color	Green
I40	09 Jun 2020	Wave Ht Low (ft)	5
I40	09 Jun 2020	Wave Period (sec)	16
I40	09 Jun 2020	Sea State	Calm
I40	09 Jun 2020	High Tide (ft)	3.56
I40	09 Jun 2020	High Tide Time	1345
I40	09 Jun 2020	Low Tide (ft)	-0.63
I40	09 Jun 2020	Low Tide Time	659
I40	09 Jun 2020	Comments	none
I40	16 Jun 2020	Depth (m)	9
I40	16 Jun 2020	Arrive Time	1115
I40	16 Jun 2020	Depart Time	1117
I40	16 Jun 2020	Air Temp (C)	18
I40	16 Jun 2020	Weather	Continuous layer of clouds
I40	16 Jun 2020	Visibility (mi)	8
I40	16 Jun 2020	Wind Speed (kts)	6
I40	16 Jun 2020	Wind Dir	S
I40	16 Jun 2020	Water Color	Greenish-Brown
I40	16 Jun 2020	Wave Ht Low (ft)	2
I40	16 Jun 2020	Wave Period (sec)	9
I40	16 Jun 2020	Sea State	Confused swell
I40	16 Jun 2020	High Tide (ft)	3.31
I40	16 Jun 2020	High Tide Time	708
I40	16 Jun 2020	Low Tide (ft)	1.5
I40	16 Jun 2020	Low Tide Time	1234
I40	16 Jun 2020	Comments	none
I40	23 Jun 2020	Depth (m)	9
I40	23 Jun 2020	Arrive Time	1111
I40	23 Jun 2020	Depart Time	1118
I40	23 Jun 2020	Air Temp (C)	18
I40	23 Jun 2020	Weather	Partly Cloudy

Station	Date	Parameter	Value
I40	23 Jun 2020	Visibility (mi)	9
I40	23 Jun 2020	Wind Speed (kts)	12
I40	23 Jun 2020	Wind Dir	NW
I40	23 Jun 2020	Water Color	Green
I40	23 Jun 2020	Wave Ht Low (ft)	4
I40	23 Jun 2020	Wave Period (sec)	13
I40	23 Jun 2020	Sea State	Calm
I40	23 Jun 2020	High Tide (ft)	3.6
I40	23 Jun 2020	High Tide Time	1215
I40	23 Jun 2020	Low Tide (ft)	-0.88
I40	23 Jun 2020	Low Tide Time	544
I40	23 Jun 2020	Comments	none

Table 3.10

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 (σ -t)	Chlor (μ g/L)
I19	02 Jun 2020	1	15.19	60.50	7.5	33.62	8.0	24.9	2.24
I19	02 Jun 2020	2	14.88	54.40	7.5	33.64	8.0	24.9	2.37
I19	02 Jun 2020	3	14.42	57.50	7.4	33.69	8.0	25.1	2.46
I19	02 Jun 2020	4	13.64	63.09	7.1	33.72	8.0	25.3	2.69
I19	02 Jun 2020	5	12.94	63.51	6.8	33.70	7.9	25.4	3.24
I19	02 Jun 2020	6	12.41	63.46	6.4	33.73	7.9	25.5	3.51
I19	02 Jun 2020	7	11.78	52.73	5.4	33.70	7.9	25.6	2.99
I19	02 Jun 2020	8	11.93	46.63	5.0	33.63	7.8	25.5	2.33
I19	02 Jun 2020	9	11.62	40.23	4.8	33.67	7.8	25.6	2.13
I19	02 Jun 2020	10	11.60	32.20	4.7	33.66	7.8	25.6	2.06
I19	09 Jun 2020	1	16.71	67.72	7.8	33.66	8.1	24.6	1.00
I19	09 Jun 2020	2	16.45	67.82	7.6	33.70	8.1	24.6	0.99
I19	09 Jun 2020	3	15.90	66.56	7.4	33.69	8.0	24.8	1.04
I19	09 Jun 2020	4	15.53	65.80	7.2	33.70	8.0	24.9	1.19
I19	09 Jun 2020	5	14.96	64.93	7.0	33.76	8.0	25.0	1.30
I19	09 Jun 2020	6	14.40	61.65	6.7	33.76	8.0	25.1	1.50
I19	09 Jun 2020	7	13.48	56.97	6.7	33.74	7.9	25.3	1.68
I19	09 Jun 2020	8	13.32	55.55	6.7	33.72	7.9	25.3	1.93
I19	09 Jun 2020	9	12.64	59.29	6.1	33.74	7.9	25.5	2.07
I19	09 Jun 2020	10	11.95	52.68	5.2	33.75	7.8	25.6	2.42
I19	16 Jun 2020	1	18.56	79.29	7.9	33.66	8.1	24.1	1.10
I19	16 Jun 2020	2	18.57	79.36	7.9	33.66	8.1	24.1	1.14
I19	16 Jun 2020	3	18.57	79.51	7.8	33.67	8.1	24.1	1.18
I19	16 Jun 2020	4	18.32	79.61	7.7	33.72	8.1	24.2	1.23
I19	16 Jun 2020	5	17.36	78.37	7.5	33.84	8.1	24.5	1.39
I19	16 Jun 2020	6	14.35	72.47	7.8	34.10	8.1	25.4	1.78
I19	16 Jun 2020	7	12.98	64.23	7.5	33.80	8.0	25.5	2.63
I19	16 Jun 2020	8	12.67	53.42	6.5	33.72	8.0	25.5	4.77
I19	16 Jun 2020	9	12.52	42.24	5.8	33.69	7.9	25.5	7.34
I19	16 Jun 2020	10	12.46	37.92	5.6	33.68	7.9	25.5	9.97
I19	23 Jun 2020	1	16.46	68.49	7.1	33.49	8.0	24.5	2.01
I19	23 Jun 2020	2	16.46	68.40	7.0	33.50	8.0	24.5	2.09
I19	23 Jun 2020	3	16.03	68.33	6.8	33.63	8.0	24.7	2.11
I19	23 Jun 2020	4	12.95	68.88	7.0	33.97	8.0	25.6	2.34
I19	23 Jun 2020	5	12.57	70.60	6.6	33.72	8.0	25.5	3.79
I19	23 Jun 2020	6	12.26	73.57	6.0	33.70	7.9	25.5	5.85
I19	23 Jun 2020	7	12.22	72.66	5.3	33.68	7.9	25.5	6.78
I19	23 Jun 2020	8	12.16	61.84	4.9	33.68	7.8	25.5	6.26
I19	23 Jun 2020	9	12.12	64.88	4.6	33.67	7.8	25.5	5.31
I19	23 Jun 2020	10	12.10	55.77	4.5	33.66	7.8	25.5	4.47
I19	30 Jun 2020	1	17.75	71.11	8.6	33.67	8.2	24.3	3.20
I19	30 Jun 2020	2	17.81	72.27	8.6	33.64	8.2	24.3	3.33
I19	30 Jun 2020	3	17.83	72.30	8.6	33.66	8.2	24.3	3.50
I19	30 Jun 2020	4	17.59	72.02	8.5	33.67	8.1	24.4	3.63
I19	30 Jun 2020	5	17.55	72.86	8.4	33.66	8.1	24.4	3.74
I19	30 Jun 2020	6	17.52	72.95	8.4	33.66	8.1	24.4	3.84
I19	30 Jun 2020	7	17.51	72.59	8.3	33.65	8.1	24.4	4.03

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I19	30 Jun 2020	8	16.76	71.87	8.0	33.81	8.1	24.7	4.21
I19	30 Jun 2020	9	15.99	56.35	7.8	33.70	8.1	24.7	4.03
I19	30 Jun 2020	10	15.65	45.65	7.7	33.77	8.1	24.9	3.31
I24	02 Jun 2020	1	15.44	72.60	7.3	33.62	8.0	24.8	1.97
I24	02 Jun 2020	2	15.49	73.36	7.3	33.62	8.0	24.8	1.97
I24	02 Jun 2020	3	14.65	73.00	7.1	33.82	8.0	25.1	1.98
I24	02 Jun 2020	4	13.15	73.95	6.7	33.78	8.0	25.4	2.19
I24	02 Jun 2020	5	12.78	79.72	6.4	33.67	8.0	25.4	2.46
I24	02 Jun 2020	6	12.74	78.05	6.1	33.64	7.9	25.4	2.37
I24	02 Jun 2020	7	12.25	72.26	5.8	33.71	7.9	25.5	2.21
I24	02 Jun 2020	8	12.05	65.63	5.6	33.67	7.9	25.5	2.21
I24	02 Jun 2020	9	11.91	80.62	5.6	33.66	7.9	25.6	2.11
I24	02 Jun 2020	10	11.93	81.81	5.6	33.65	7.9	25.6	1.69
I24	09 Jun 2020	1	17.25	70.35	8.1	33.66	8.1	24.4	1.06
I24	09 Jun 2020	2	17.06	70.16	8.0	33.68	8.1	24.5	1.10
I24	09 Jun 2020	3	16.81	69.55	8.0	33.70	8.1	24.6	1.17
I24	09 Jun 2020	4	16.26	68.30	7.7	33.73	8.1	24.7	1.28
I24	09 Jun 2020	5	14.87	64.69	7.1	33.89	8.0	25.1	1.43
I24	09 Jun 2020	6	13.81	64.81	6.3	33.75	7.9	25.3	1.65
I24	09 Jun 2020	7	13.29	66.40	5.9	33.84	7.9	25.4	1.79
I24	09 Jun 2020	8	12.68	66.92	5.5	33.73	7.9	25.5	1.91
I24	09 Jun 2020	9	12.10	59.79	5.1	33.78	7.8	25.6	2.02
I24	09 Jun 2020	10	12.00	33.62	4.8	33.71	7.8	25.6	2.01
I24	09 Jun 2020	11	12.03	25.68	4.6	33.70	7.8	25.6	2.32
I24	16 Jun 2020	1	18.77	79.95	8.0	33.67	8.2	24.1	1.22
I24	16 Jun 2020	2	18.78	80.07	8.0	33.67	8.2	24.1	1.28
I24	16 Jun 2020	3	18.74	80.08	8.0	33.68	8.2	24.1	1.23
I24	16 Jun 2020	4	18.69	80.00	8.1	33.68	8.2	24.1	1.25
I24	16 Jun 2020	5	18.27	79.72	8.2	33.76	8.2	24.3	1.38
I24	16 Jun 2020	6	17.39	78.31	8.4	33.76	8.2	24.5	1.71
I24	16 Jun 2020	7	16.09	75.89	8.6	33.84	8.2	24.8	2.11
I24	16 Jun 2020	8	14.20	73.32	8.2	33.94	8.1	25.3	2.50
I24	16 Jun 2020	9	13.14	62.15	7.1	33.79	8.0	25.4	3.21
I24	16 Jun 2020	10	13.36	71.98	6.8	33.71	8.0	25.3	5.67
I24	23 Jun 2020	1	18.01	76.29	7.9	33.68	8.2	24.3	1.62
I24	23 Jun 2020	2	18.04	76.66	7.8	33.67	8.2	24.2	1.66
I24	23 Jun 2020	3	17.37	76.63	7.4	33.84	8.2	24.5	1.72
I24	23 Jun 2020	4	13.82	75.62	7.0	34.06	8.1	25.5	1.74
I24	23 Jun 2020	5	12.96	75.14	6.5	33.77	8.0	25.5	1.97
I24	23 Jun 2020	6	12.95	78.30	5.9	33.73	7.9	25.4	2.30
I24	23 Jun 2020	7	12.25	78.64	5.2	33.76	7.9	25.6	2.20
I24	23 Jun 2020	8	11.99	76.90	4.6	33.70	7.8	25.6	2.13
I24	23 Jun 2020	9	11.98	69.75	4.4	33.70	7.8	25.6	1.94
I24	23 Jun 2020	10	12.01	55.45	4.3	33.69	7.8	25.6	1.73
I24	30 Jun 2020	1	17.92	75.80	8.6	33.65	8.2	24.3	1.61
I24	30 Jun 2020	2	17.91	75.88	8.6	33.66	8.2	24.3	1.62
I24	30 Jun 2020	3	17.72	76.05	8.6	33.68	8.2	24.3	1.68
I24	30 Jun 2020	4	17.43	77.27	8.6	33.72	8.1	24.4	1.79
I24	30 Jun 2020	5	16.82	77.18	8.6	33.72	8.1	24.6	1.98
I24	30 Jun 2020	6	16.73	75.18	8.4	33.67	8.1	24.6	2.50

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I24	30 Jun 2020	7	16.62	72.30	8.2	33.68	8.1	24.6	3.12
I24	30 Jun 2020	8	16.13	69.90	8.0	33.73	8.1	24.7	3.48
I24	30 Jun 2020	9	15.86	62.11	7.8	33.69	8.1	24.8	3.13
I25	02 Jun 2020	1	15.81	69.90	7.2	33.61	8.0	24.7	2.29
I25	02 Jun 2020	2	15.80	70.14	7.2	33.62	8.0	24.7	2.36
I25	02 Jun 2020	3	15.36	69.11	7.2	33.70	8.0	24.9	2.37
I25	02 Jun 2020	4	15.01	70.73	7.2	33.65	8.0	24.9	2.63
I25	02 Jun 2020	5	13.53	70.96	6.9	33.84	8.0	25.4	3.16
I25	02 Jun 2020	6	12.94	77.14	6.8	33.70	8.0	25.4	3.39
I25	02 Jun 2020	7	12.77	82.11	5.7	33.69	7.9	25.4	3.18
I25	02 Jun 2020	8	11.86	82.94	5.8	33.73	7.9	25.6	2.79
I25	02 Jun 2020	9	11.95	82.18	5.5	33.62	7.9	25.5	2.55
I25	09 Jun 2020	1	16.97	69.42	8.1	33.67	8.1	24.5	1.13
I25	09 Jun 2020	2	16.50	69.38	8.0	33.72	8.1	24.7	1.18
I25	09 Jun 2020	3	16.31	68.69	7.9	33.67	8.1	24.7	1.26
I25	09 Jun 2020	4	15.96	67.73	7.8	33.70	8.1	24.8	1.46
I25	09 Jun 2020	5	15.64	66.15	7.5	33.73	8.0	24.9	1.73
I25	09 Jun 2020	6	14.64	64.09	6.8	33.82	8.0	25.1	1.89
I25	09 Jun 2020	7	12.90	65.91	5.9	33.97	7.9	25.6	1.97
I25	09 Jun 2020	8	12.34	62.45	5.2	33.75	7.8	25.6	2.02
I25	09 Jun 2020	9	12.36	46.49	4.9	33.72	7.8	25.5	2.04
I25	16 Jun 2020	1	18.79	80.41	8.1	33.65	8.2	24.0	1.03
I25	16 Jun 2020	2	18.79	80.42	8.1	33.68	8.2	24.1	0.96
I25	16 Jun 2020	3	18.75	80.37	8.1	33.68	8.2	24.1	0.99
I25	16 Jun 2020	4	18.69	80.03	8.1	33.68	8.2	24.1	1.06
I25	16 Jun 2020	5	18.53	79.74	8.1	33.70	8.2	24.1	1.21
I25	16 Jun 2020	6	17.59	78.36	8.1	33.85	8.2	24.5	1.34
I25	16 Jun 2020	7	16.41	75.02	8.5	33.73	8.1	24.7	1.55
I25	16 Jun 2020	8	14.07	63.42	7.4	34.00	8.1	25.4	1.89
I25	23 Jun 2020	1	18.17	76.69	7.9	33.64	8.2	24.2	1.51
I25	23 Jun 2020	2	17.98	76.73	7.7	33.70	8.2	24.3	1.52
I25	23 Jun 2020	3	14.88	76.27	8.1	33.97	8.1	25.2	1.52
I25	23 Jun 2020	4	14.87	73.28	8.0	33.73	8.1	25.0	1.89
I25	23 Jun 2020	5	13.24	70.71	8.0	33.72	8.1	25.4	2.35
I25	23 Jun 2020	6	13.03	69.65	7.8	33.68	8.1	25.4	2.95
I25	23 Jun 2020	7	12.80	72.65	7.4	33.68	8.0	25.4	4.64
I25	23 Jun 2020	8	12.69	75.16	7.0	33.66	8.0	25.4	6.49
I25	23 Jun 2020	9	12.54	77.09	6.4	33.66	8.0	25.4	7.51
I25	30 Jun 2020	1	17.99	76.97	8.6	33.64	8.2	24.2	1.26
I25	30 Jun 2020	2	17.97	76.98	8.5	33.65	8.2	24.2	1.27
I25	30 Jun 2020	3	17.43	77.08	8.6	33.73	8.2	24.4	1.29
I25	30 Jun 2020	4	17.01	76.76	8.6	33.70	8.1	24.5	1.48
I25	30 Jun 2020	5	16.81	75.13	8.6	33.69	8.1	24.6	1.88
I25	30 Jun 2020	6	16.69	73.95	8.5	33.68	8.1	24.6	2.61
I25	30 Jun 2020	7	16.56	70.83	8.2	33.68	8.1	24.6	3.63
I25	30 Jun 2020	8	16.49	69.07	8.1	33.67	8.1	24.6	4.01
I25	30 Jun 2020	9	16.54	67.83	8.1	33.64	8.1	24.6	3.64
I26	02 Jun 2020	1	15.53	71.30	7.4	33.62	8.0	24.8	2.11
I26	02 Jun 2020	2	15.15	70.70	7.4	33.67	8.0	24.9	2.10

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I26	02 Jun 2020	3	14.75	69.14	7.4	33.67	8.0	25.0	2.46
I26	02 Jun 2020	4	14.06	68.61	7.1	33.68	8.0	25.2	3.06
I26	02 Jun 2020	5	13.54	70.49	6.6	33.73	8.0	25.3	3.46
I26	02 Jun 2020	6	12.24	77.14	6.2	33.75	7.9	25.6	3.32
I26	02 Jun 2020	7	13.03	85.02	6.0	33.57	7.9	25.3	2.46
I26	02 Jun 2020	8	11.77	84.64	5.6	33.71	7.9	25.6	2.22
I26	02 Jun 2020	9	11.75	83.22	5.5	33.67	7.9	25.6	2.09
I26	09 Jun 2020	1	16.94	68.51	8.1	33.66	8.1	24.5	1.07
I26	09 Jun 2020	2	16.91	69.32	8.1	33.66	8.1	24.5	1.07
I26	09 Jun 2020	3	16.67	69.06	8.0	33.70	8.1	24.6	1.09
I26	09 Jun 2020	4	16.59	68.76	8.0	33.67	8.1	24.6	1.15
I26	09 Jun 2020	5	16.23	68.13	7.8	33.74	8.1	24.7	1.30
I26	09 Jun 2020	6	15.79	65.37	7.8	33.72	8.1	24.8	1.45
I26	09 Jun 2020	7	15.37	62.31	7.6	33.76	8.0	24.9	1.84
I26	09 Jun 2020	8	13.92	55.51	7.1	34.00	8.0	25.4	2.16
I26	09 Jun 2020	9	12.53	60.97	6.1	33.75	7.9	25.5	2.31
I26	16 Jun 2020	1	18.83	79.31	8.2	33.66	8.1	24.0	0.86
I26	16 Jun 2020	2	18.81	79.19	8.2	33.67	8.1	24.1	0.88
I26	16 Jun 2020	3	18.75	79.08	8.2	33.67	8.1	24.1	0.87
I26	16 Jun 2020	4	18.71	78.92	8.1	33.67	8.1	24.1	0.93
I26	16 Jun 2020	5	18.58	78.26	8.0	33.68	8.1	24.1	1.00
I26	16 Jun 2020	6	17.97	77.12	7.5	33.80	8.1	24.4	1.14
I26	16 Jun 2020	7	13.91	73.87	7.5	34.17	8.1	25.6	1.29
I26	16 Jun 2020	8	12.83	64.89	7.1	33.74	8.0	25.4	1.58
I26	16 Jun 2020	9	12.88	65.46	6.7	33.66	7.9	25.4	3.95
I26	23 Jun 2020	1	18.20	76.84	8.0	33.65	8.2	24.2	1.20
I26	23 Jun 2020	2	18.04	77.52	7.8	33.69	8.2	24.3	1.20
I26	23 Jun 2020	3	15.51	77.77	8.1	33.91	8.2	25.0	1.23
I26	23 Jun 2020	4	13.80	74.51	8.4	33.73	8.1	25.2	1.43
I26	23 Jun 2020	5	13.41	72.69	7.8	33.76	8.1	25.3	2.13
I26	23 Jun 2020	6	12.58	73.87	7.0	33.68	8.0	25.5	2.71
I26	23 Jun 2020	7	12.56	77.95	6.5	33.65	8.0	25.4	3.31
I26	23 Jun 2020	8	12.34	79.91	6.2	33.67	8.0	25.5	3.65
I26	23 Jun 2020	9	12.32	80.95	6.0	33.65	7.9	25.5	3.77
I26	30 Jun 2020	1	18.22	70.16	8.4	33.62	8.2	24.2	1.68
I26	30 Jun 2020	2	18.15	70.19	8.6	33.63	8.2	24.2	2.14
I26	30 Jun 2020	3	17.82	70.25	8.6	33.65	8.2	24.3	3.11
I26	30 Jun 2020	4	17.68	70.33	8.5	33.64	8.2	24.3	4.23
I26	30 Jun 2020	5	17.42	70.66	8.6	33.66	8.1	24.4	5.18
I26	30 Jun 2020	6	17.21	71.73	8.5	33.66	8.1	24.4	5.73
I26	30 Jun 2020	7	17.16	72.63	8.5	33.65	8.1	24.4	5.35
I26	30 Jun 2020	8	17.10	72.58	8.3	33.65	8.1	24.5	4.63
I26	30 Jun 2020	9	16.96	71.32	8.3	33.65	8.1	24.5	4.12
I32	02 Jun 2020	1	14.69	58.80	7.8	33.60	8.0	25.0	3.46
I32	02 Jun 2020	2	14.17	60.29	7.6	33.66	8.0	25.1	3.73
I32	02 Jun 2020	3	13.60	60.29	7.4	33.64	8.0	25.2	4.10
I32	02 Jun 2020	4	13.22	60.66	7.1	33.64	8.0	25.3	4.20
I32	02 Jun 2020	5	13.06	60.67	6.9	33.62	7.9	25.3	4.09
I32	02 Jun 2020	6	12.71	60.19	6.6	33.69	7.9	25.4	3.77
I32	02 Jun 2020	7	12.24	60.25	6.1	33.66	7.9	25.5	3.35

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I32	02 Jun 2020	8	12.07	59.02	5.8	33.70	7.9	25.6	2.81
I32	02 Jun 2020	9	11.82	46.06	5.4	33.66	7.9	25.6	2.56
I32	09 Jun 2020	1	16.50	69.73	8.0	33.65	8.1	24.6	1.11
I32	09 Jun 2020	2	16.43	69.71	7.9	33.67	8.1	24.6	1.15
I32	09 Jun 2020	3	16.14	69.34	7.8	33.68	8.1	24.7	1.17
I32	09 Jun 2020	4	16.07	67.85	7.8	33.66	8.1	24.7	1.33
I32	09 Jun 2020	5	15.74	66.17	7.6	33.71	8.0	24.8	1.62
I32	09 Jun 2020	6	15.32	63.39	7.5	33.70	8.0	24.9	1.83
I32	09 Jun 2020	7	15.04	55.71	7.5	33.70	8.0	25.0	2.17
I32	09 Jun 2020	8	14.79	50.85	7.5	33.69	8.0	25.0	2.48
I32	09 Jun 2020	9	14.39	44.78	7.2	33.72	7.9	25.1	2.60
I32	09 Jun 2020	10	13.93	22.85	6.9	33.71	7.9	25.2	2.65
I32	16 Jun 2020	1	19.10	71.22	8.3	33.66	8.2	24.0	1.56
I32	16 Jun 2020	2	19.10	71.20	8.3	33.66	8.2	24.0	1.57
I32	16 Jun 2020	3	19.03	71.49	8.2	33.67	8.2	24.0	1.56
I32	16 Jun 2020	4	18.98	71.15	8.3	33.66	8.2	24.0	1.79
I32	16 Jun 2020	5	18.96	70.98	8.2	33.66	8.2	24.0	2.18
I32	16 Jun 2020	6	18.95	71.00	8.2	33.66	8.2	24.0	2.55
I32	16 Jun 2020	7	18.85	71.07	8.0	33.67	8.2	24.0	2.96
I32	16 Jun 2020	8	18.23	70.68	7.2	33.78	8.2	24.3	3.48
I32	16 Jun 2020	9	14.05	61.79	6.7	34.16	8.1	25.5	3.79
I32	16 Jun 2020	10	13.10	46.32	6.5	33.83	8.0	25.5	4.14
I32	23 Jun 2020	1	17.79	74.29	8.1	33.66	8.2	24.3	1.64
I32	23 Jun 2020	2	17.71	74.33	8.0	33.69	8.2	24.3	1.66
I32	23 Jun 2020	3	17.10	74.10	7.9	33.83	8.2	24.6	1.69
I32	23 Jun 2020	4	16.15	73.45	8.1	33.70	8.2	24.7	1.83
I32	23 Jun 2020	5	14.70	74.82	7.7	34.00	8.1	25.3	2.10
I32	23 Jun 2020	6	13.38	72.24	7.5	33.84	8.1	25.4	2.39
I32	23 Jun 2020	7	12.78	72.99	6.9	33.79	8.0	25.5	3.15
I32	23 Jun 2020	8	12.44	76.25	6.4	33.75	8.0	25.5	3.92
I32	23 Jun 2020	9	12.23	78.29	6.0	33.71	8.0	25.5	4.66
I32	23 Jun 2020	10	12.17	69.83	5.7	33.69	7.9	25.5	4.84
I32	30 Jun 2020	1	18.22	70.15	8.4	33.62	8.2	24.2	1.54
I32	30 Jun 2020	2	18.15	70.19	8.4	33.64	8.2	24.2	1.54
I32	30 Jun 2020	3	17.82	70.25	8.6	33.66	8.2	24.3	1.62
I32	30 Jun 2020	4	17.68	70.33	8.7	33.65	8.2	24.3	1.86
I32	30 Jun 2020	5	17.42	70.66	8.6	33.68	8.1	24.4	2.55
I32	30 Jun 2020	6	17.21	71.84	8.6	33.66	8.1	24.4	3.59
I32	30 Jun 2020	7	17.16	72.66	8.6	33.65	8.1	24.4	4.64
I32	30 Jun 2020	8	17.10	72.58	8.5	33.66	8.1	24.5	5.45
I32	30 Jun 2020	9	16.97	71.86	8.4	33.66	8.1	24.5	5.73
I32	30 Jun 2020	10	16.92	64.23	8.3	33.65	8.1	24.5	5.19
I39	02 Jun 2020	1	15.97	75.92	6.9	33.61	8.0	24.7	1.71
I39	02 Jun 2020	2	15.28	76.85	6.7	33.56	8.0	24.8	1.76
I39	02 Jun 2020	3	13.93	79.65	6.5	33.69	8.0	25.2	1.84
I39	02 Jun 2020	4	13.01	81.69	6.1	33.77	8.0	25.4	1.92
I39	02 Jun 2020	5	12.59	84.92	5.9	33.67	7.9	25.4	1.85
I39	02 Jun 2020	6	12.49	85.99	5.7	33.68	7.9	25.5	1.85
I39	02 Jun 2020	7	12.12	87.54	5.6	33.68	7.9	25.5	1.82
I39	02 Jun 2020	8	11.95	88.34	5.5	33.67	7.9	25.6	1.64

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I39	02 Jun 2020	9	11.75	89.42	5.4	33.67	7.9	25.6	1.35
I39	02 Jun 2020	10	11.61	90.42	5.3	33.68	7.9	25.6	1.05
I39	02 Jun 2020	11	11.37	90.88	5.2	33.68	7.9	25.7	0.90
I39	02 Jun 2020	12	11.31	91.10	5.0	33.68	7.9	25.7	0.77
I39	02 Jun 2020	13	11.30	91.39	4.9	33.70	7.8	25.7	0.69
I39	02 Jun 2020	14	11.28	91.24	4.8	33.70	7.8	25.7	0.58
I39	02 Jun 2020	15	11.25	91.40	4.7	33.71	7.8	25.7	0.56
I39	02 Jun 2020	16	11.26	91.11	4.6	33.71	7.8	25.7	0.56
I39	02 Jun 2020	17	11.25	90.60	4.5	33.72	7.8	25.7	0.57
I39	02 Jun 2020	18	11.25	90.07	4.4	33.72	7.8	25.7	0.57
I39	09 Jun 2020	1	17.47	71.26	8.3	33.66	8.1	24.4	0.88
I39	09 Jun 2020	2	17.41	71.22	8.2	33.68	8.1	24.4	0.89
I39	09 Jun 2020	3	16.73	71.89	8.0	33.70	8.1	24.6	0.98
I39	09 Jun 2020	4	15.57	73.05	7.4	33.85	8.1	25.0	1.26
I39	09 Jun 2020	5	14.49	77.96	6.8	33.71	8.0	25.1	1.44
I39	09 Jun 2020	6	14.31	81.23	6.6	33.74	8.0	25.1	1.68
I39	09 Jun 2020	7	14.00	80.62	6.4	33.69	8.0	25.2	1.86
I39	09 Jun 2020	8	13.96	79.76	6.4	33.68	8.0	25.2	2.10
I39	09 Jun 2020	9	13.74	78.47	6.3	33.69	8.0	25.2	2.75
I39	09 Jun 2020	10	13.37	76.93	6.1	33.74	8.0	25.3	3.13
I39	09 Jun 2020	11	11.93	78.69	5.5	33.88	7.9	25.7	3.69
I39	09 Jun 2020	12	11.65	85.07	5.0	33.73	7.8	25.7	3.23
I39	09 Jun 2020	13	11.52	85.46	4.8	33.74	7.8	25.7	2.24
I39	09 Jun 2020	14	11.38	85.20	4.7	33.72	7.8	25.7	1.87
I39	09 Jun 2020	15	11.42	85.40	4.8	33.72	7.8	25.7	1.45
I39	09 Jun 2020	16	11.33	85.38	5.0	33.72	7.8	25.7	1.38
I39	09 Jun 2020	17	11.32	85.37	4.1	33.71	7.8	25.7	1.31
I39	09 Jun 2020	18	11.33	85.17	4.7	33.71	7.8	25.7	1.34
I39	16 Jun 2020	1	19.58	83.31	8.0	33.67	8.2	23.9	2.13
I39	16 Jun 2020	2	19.53	83.29	8.0	33.68	8.2	23.9	2.09
I39	16 Jun 2020	3	19.39	83.30	8.0	33.70	8.2	23.9	2.18
I39	16 Jun 2020	4	19.29	82.63	8.1	33.69	8.2	23.9	2.23
I39	16 Jun 2020	5	19.21	81.97	8.1	33.69	8.2	24.0	2.52
I39	16 Jun 2020	6	19.14	81.62	8.1	33.69	8.2	24.0	2.56
I39	16 Jun 2020	7	19.00	81.20	8.1	33.70	8.2	24.0	2.75
I39	16 Jun 2020	8	18.81	80.57	8.2	33.72	8.2	24.1	2.83
I39	16 Jun 2020	9	18.30	79.37	8.3	33.74	8.2	24.2	2.98
I39	16 Jun 2020	10	18.15	77.68	8.4	33.70	8.2	24.2	3.24
I39	16 Jun 2020	11	17.80	76.89	8.5	33.71	8.2	24.3	3.50
I39	16 Jun 2020	12	17.65	75.88	8.5	33.70	8.1	24.4	3.70
I39	16 Jun 2020	13	17.52	75.41	8.4	33.69	8.1	24.4	3.84
I39	16 Jun 2020	14	17.45	75.04	8.4	33.69	8.1	24.4	3.97
I39	16 Jun 2020	15	17.26	74.90	8.4	33.71	8.1	24.5	4.04
I39	16 Jun 2020	16	16.97	74.63	8.3	33.72	8.1	24.5	4.15
I39	16 Jun 2020	17	16.61	74.80	8.0	33.72	8.1	24.6	4.13
I39	16 Jun 2020	18	15.41	76.46	7.5	33.88	8.1	25.0	4.33
I39	23 Jun 2020	1	18.37	79.57	7.8	33.67	8.2	24.2	1.84
I39	23 Jun 2020	2	18.24	79.93	7.9	33.71	8.2	24.2	1.87
I39	23 Jun 2020	3	17.88	79.78	7.9	33.73	8.2	24.3	1.86
I39	23 Jun 2020	4	17.95	79.96	7.9	33.68	8.2	24.3	2.02
I39	23 Jun 2020	5	17.43	79.88	7.9	33.78	8.2	24.5	2.25
I39	23 Jun 2020	6	16.86	78.84	8.0	33.73	8.2	24.6	2.48

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I39	23 Jun 2020	7	16.52	78.60	8.0	33.72	8.2	24.6	2.81
I39	23 Jun 2020	8	16.42	78.17	8.0	33.69	8.2	24.6	3.33
I39	23 Jun 2020	9	16.24	78.11	8.0	33.70	8.2	24.7	3.91
I39	23 Jun 2020	10	15.88	77.82	7.9	33.75	8.2	24.8	4.15
I39	23 Jun 2020	11	14.63	76.85	7.8	33.87	8.1	25.2	4.32
I39	23 Jun 2020	12	13.25	74.60	7.4	33.80	8.1	25.4	4.62
I39	23 Jun 2020	13	12.77	74.42	6.7	33.79	8.0	25.5	5.20
I39	23 Jun 2020	14	12.32	80.19	6.0	33.77	8.0	25.6	5.88
I39	23 Jun 2020	15	11.75	86.44	5.6	33.75	7.9	25.7	6.06
I39	23 Jun 2020	16	11.62	89.02	5.3	33.71	7.9	25.7	5.34
I39	23 Jun 2020	17	11.62	88.22	5.1	33.71	7.9	25.7	3.89
I39	23 Jun 2020	18	11.61	88.08	4.9	33.70	7.9	25.7	3.13
I39	30 Jun 2020	1	18.00	75.91	8.5	33.62	8.1	24.2	2.06
I39	30 Jun 2020	2	17.88	75.69	8.5	33.65	8.2	24.3	2.03
I39	30 Jun 2020	3	17.27	74.95	8.7	33.74	8.2	24.5	2.23
I39	30 Jun 2020	4	16.21	77.45	8.8	33.74	8.1	24.7	2.42
I39	30 Jun 2020	5	16.06	77.78	8.6	33.68	8.1	24.7	3.23
I39	30 Jun 2020	6	16.03	75.90	8.4	33.67	8.1	24.7	3.85
I39	30 Jun 2020	7	16.04	72.40	8.2	33.66	8.1	24.7	4.61
I39	30 Jun 2020	8	15.74	71.05	8.0	33.74	8.1	24.8	5.01
I39	30 Jun 2020	9	15.05	70.07	7.8	33.73	8.0	25.0	5.27
I39	30 Jun 2020	10	14.96	72.28	7.7	33.70	8.0	25.0	5.00
I39	30 Jun 2020	11	14.62	74.37	7.4	33.74	8.0	25.1	4.31
I39	30 Jun 2020	12	13.93	75.38	7.0	33.81	8.0	25.3	3.86
I39	30 Jun 2020	13	13.53	76.00	6.5	33.75	7.9	25.3	4.19
I39	30 Jun 2020	14	13.36	76.79	6.2	33.74	7.9	25.3	4.69
I39	30 Jun 2020	15	13.16	77.28	6.0	33.72	7.9	25.4	4.81
I39	30 Jun 2020	16	13.10	78.91	5.9	33.71	7.9	25.4	5.01
I39	30 Jun 2020	17	13.00	79.13	5.6	33.72	7.9	25.4	5.17
I39	30 Jun 2020	18	12.80	79.22	5.1	33.73	7.8	25.4	5.33
I40	02 Jun 2020	1	15.46	65.92	7.6	33.59	8.0	24.8	2.61
I40	02 Jun 2020	2	15.25	66.06	7.5	33.66	8.0	24.9	2.73
I40	02 Jun 2020	3	14.49	65.24	7.4	33.72	8.0	25.1	2.77
I40	02 Jun 2020	4	13.93	64.88	7.2	33.67	8.0	25.2	3.03
I40	02 Jun 2020	5	13.82	65.34	7.0	33.65	8.0	25.2	3.59
I40	02 Jun 2020	6	12.97	61.37	6.5	33.76	7.9	25.4	4.14
I40	02 Jun 2020	7	12.22	53.07	5.7	33.76	7.9	25.6	4.22
I40	02 Jun 2020	8	11.95	43.91	5.0	33.70	7.9	25.6	3.68
I40	02 Jun 2020	9	11.86	27.24	4.8	33.66	7.8	25.6	2.87
I40	09 Jun 2020	1	14.49	44.66	7.0	33.51	7.9	24.9	0.96
I40	09 Jun 2020	2	13.75	44.67	6.5	33.73	7.9	25.3	0.94
I40	09 Jun 2020	3	12.96	51.66	5.8	33.71	7.9	25.4	1.01
I40	09 Jun 2020	4	12.65	58.80	5.3	33.65	7.8	25.4	1.41
I40	09 Jun 2020	5	12.32	60.13	5.1	33.71	7.8	25.5	1.65
I40	09 Jun 2020	6	12.17	43.10	4.8	33.67	7.8	25.5	1.87
I40	09 Jun 2020	7	11.94	53.88	4.8	33.68	7.8	25.6	2.34
I40	09 Jun 2020	8	11.93	57.74	4.8	33.66	7.8	25.6	2.61
I40	09 Jun 2020	9	11.91	48.78	4.7	33.65	7.8	25.6	2.62
I40	09 Jun 2020	10	11.92	25.96	4.6	33.65	7.8	25.6	2.74
I40	16 Jun 2020	1	18.75	79.13	8.0	33.66	8.1	24.1	1.10
I40	16 Jun 2020	2	18.78	79.15	8.0	33.66	8.1	24.1	1.10

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I40	16 Jun 2020	3	18.75	79.23	8.0	33.67	8.1	24.1	1.12
I40	16 Jun 2020	4	18.63	79.09	7.8	33.70	8.1	24.1	1.14
I40	16 Jun 2020	5	17.82	76.95	7.6	33.81	8.1	24.4	1.23
I40	16 Jun 2020	6	16.75	64.45	7.1	33.84	8.1	24.7	1.74
I40	16 Jun 2020	7	13.62	50.38	6.7	34.01	8.0	25.5	2.91
I40	16 Jun 2020	8	12.99	39.31	6.2	33.76	7.9	25.4	5.06
I40	16 Jun 2020	9	12.64	42.43	5.7	33.73	7.9	25.5	8.47
I40	16 Jun 2020	10	12.59	43.65	5.5	33.67	7.9	25.4	9.80
I40	23 Jun 2020	1	16.61	62.39	7.0	33.40	8.0	24.4	1.41
I40	23 Jun 2020	2	16.52	62.10	6.9	33.44	8.0	24.4	1.45
I40	23 Jun 2020	3	15.82	63.01	6.6	33.54	8.0	24.7	1.56
I40	23 Jun 2020	4	13.37	67.23	6.2	33.86	8.0	25.4	1.81
I40	23 Jun 2020	5	13.32	74.26	5.9	33.61	7.9	25.3	2.30
I40	23 Jun 2020	6	12.80	75.29	5.5	33.78	7.9	25.5	2.75
I40	23 Jun 2020	7	12.25	74.43	5.0	33.70	7.8	25.5	3.09
I40	23 Jun 2020	8	12.17	74.92	4.7	33.69	7.8	25.5	3.14
I40	23 Jun 2020	9	12.13	57.42	4.4	33.67	7.8	25.5	3.03
I40	23 Jun 2020	10	12.14	38.73	4.2	33.66	7.8	25.5	2.77
I40	30 Jun 2020	1	17.83	73.60	8.5	33.65	8.2	24.3	1.53
I40	30 Jun 2020	2	17.78	76.37	8.6	33.66	8.2	24.3	1.56
I40	30 Jun 2020	3	17.73	76.25	8.6	33.66	8.2	24.3	1.59
I40	30 Jun 2020	4	17.67	77.00	8.6	33.67	8.2	24.3	1.78
I40	30 Jun 2020	5	17.47	77.63	8.5	33.69	8.1	24.4	1.94
I40	30 Jun 2020	6	17.34	77.68	8.5	33.67	8.1	24.4	2.24
I40	30 Jun 2020	7	17.31	77.03	8.5	33.67	8.1	24.4	2.62
I40	30 Jun 2020	8	17.27	76.81	8.5	33.67	8.1	24.4	2.86
I40	30 Jun 2020	9	17.12	76.64	8.2	33.68	8.1	24.5	3.00
I40	30 Jun 2020	10	16.37	57.11	7.9	33.68	8.1	24.6	2.88

NA = not available

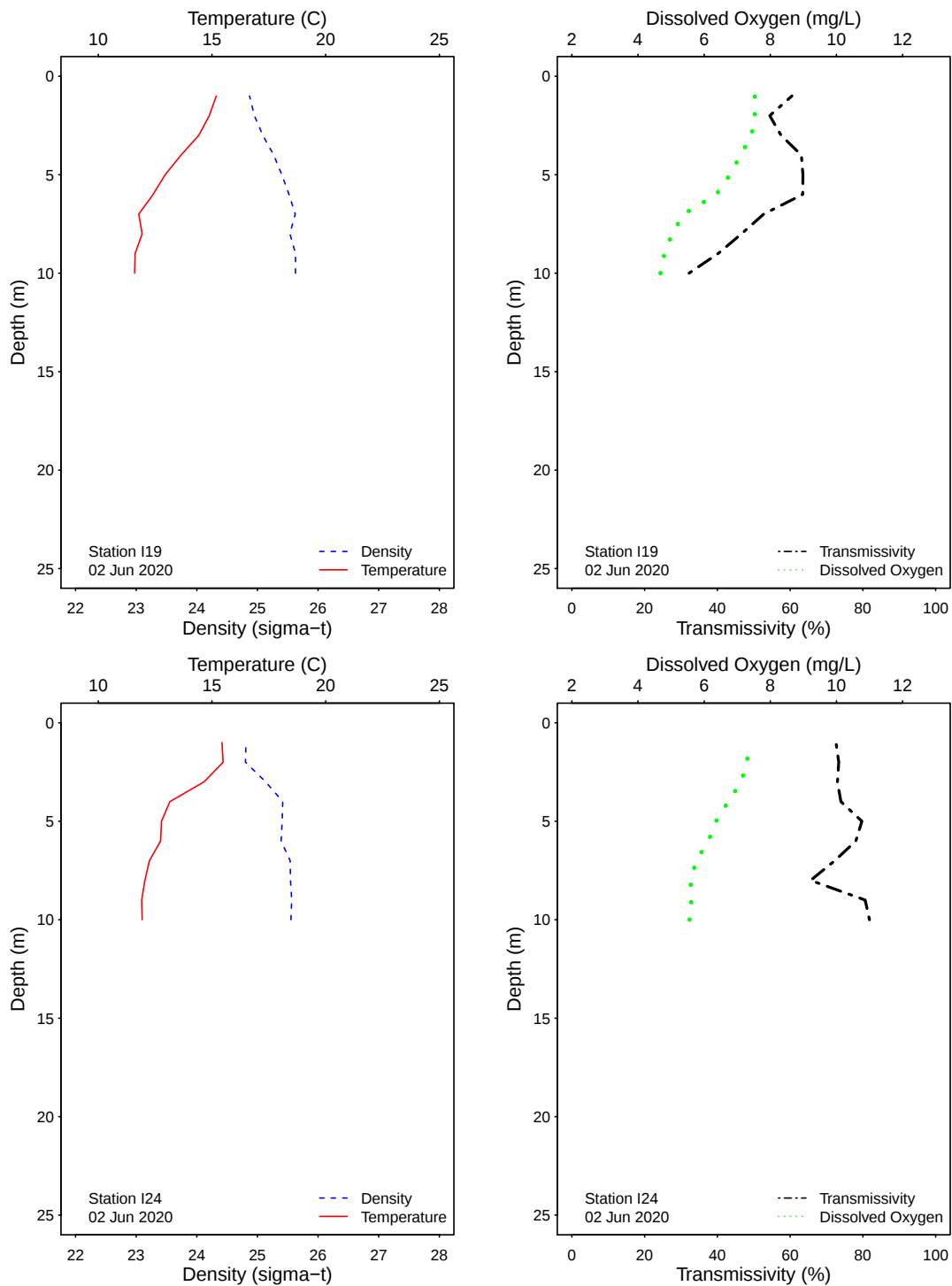


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

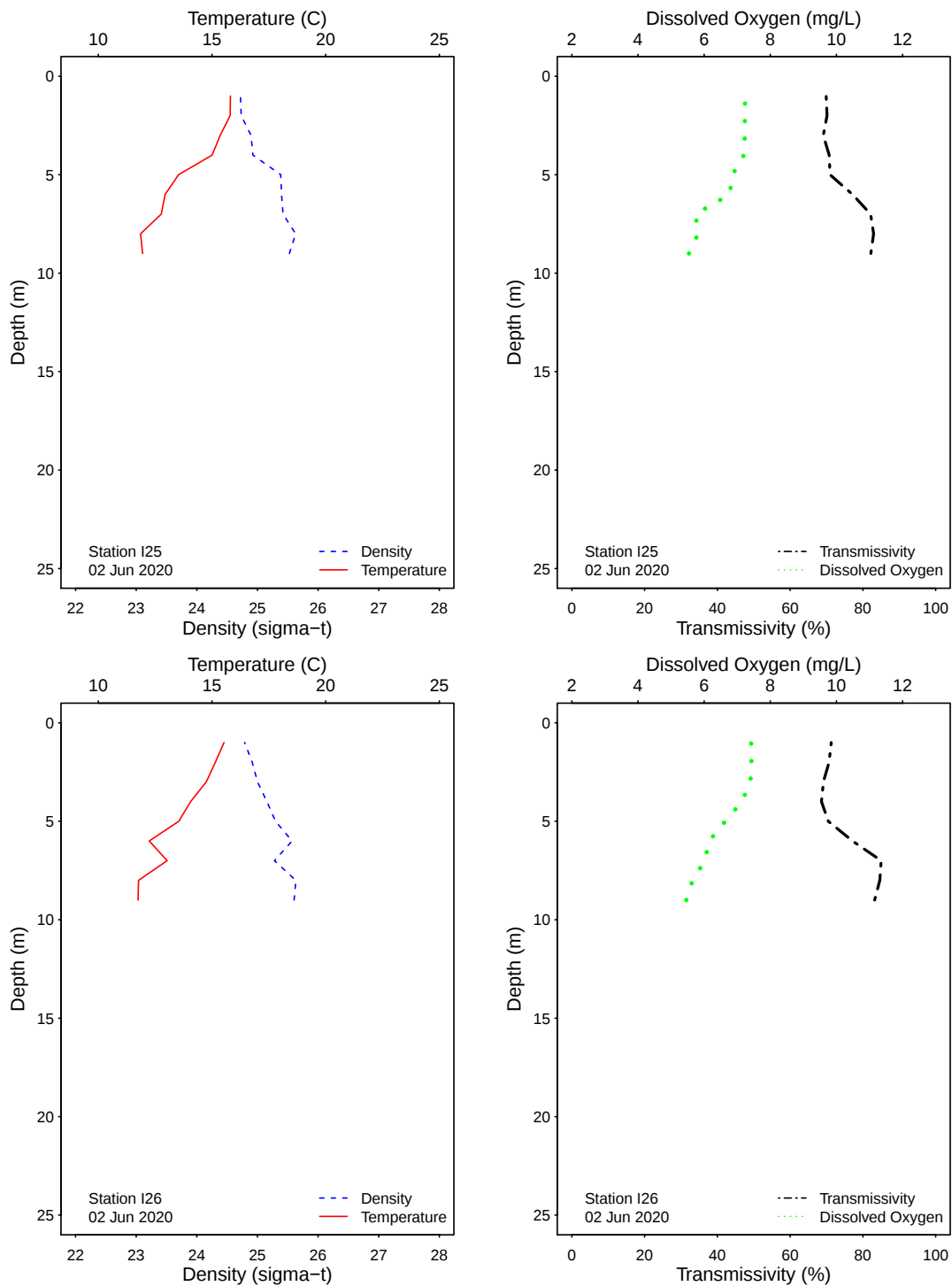


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

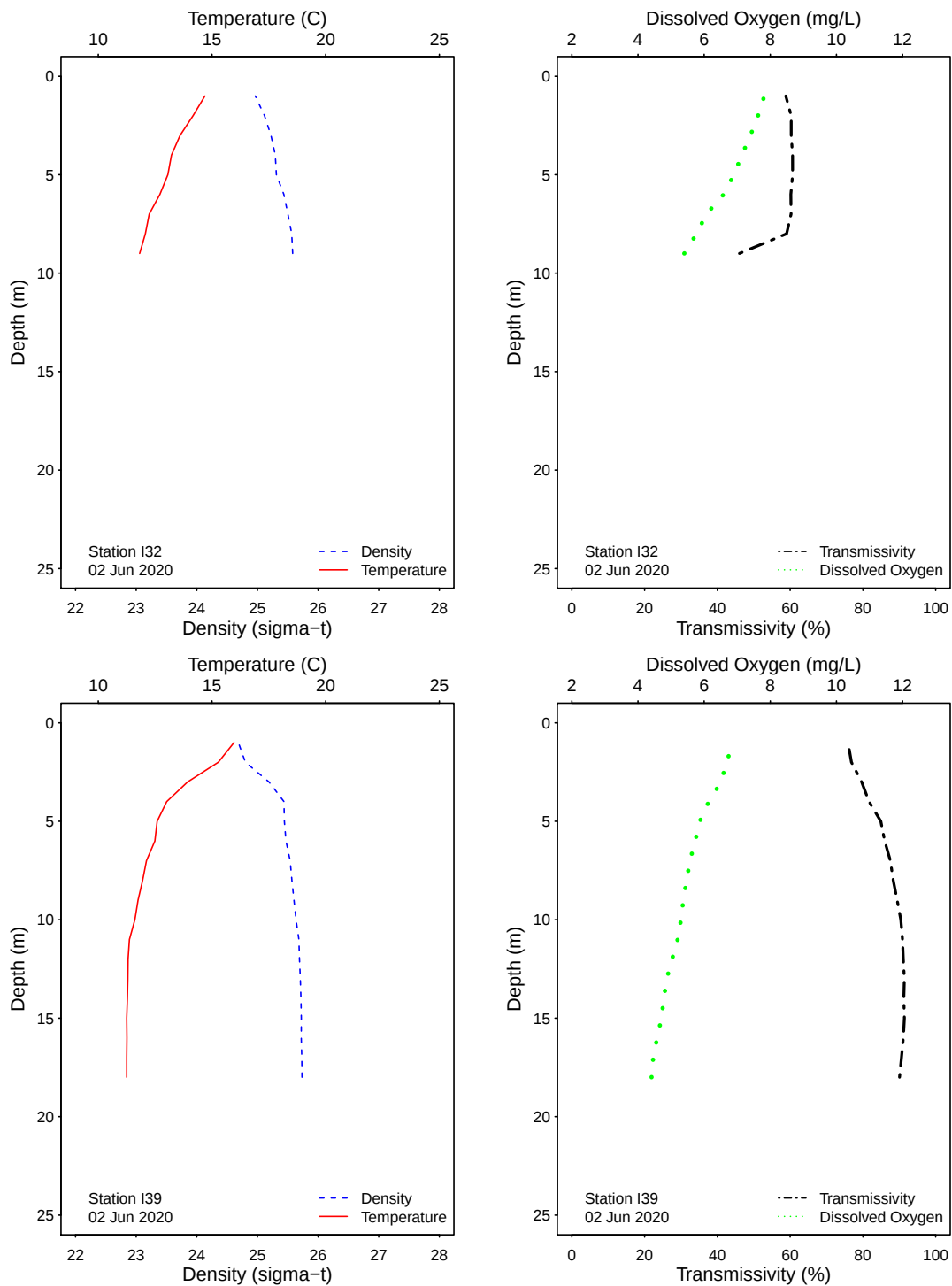


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

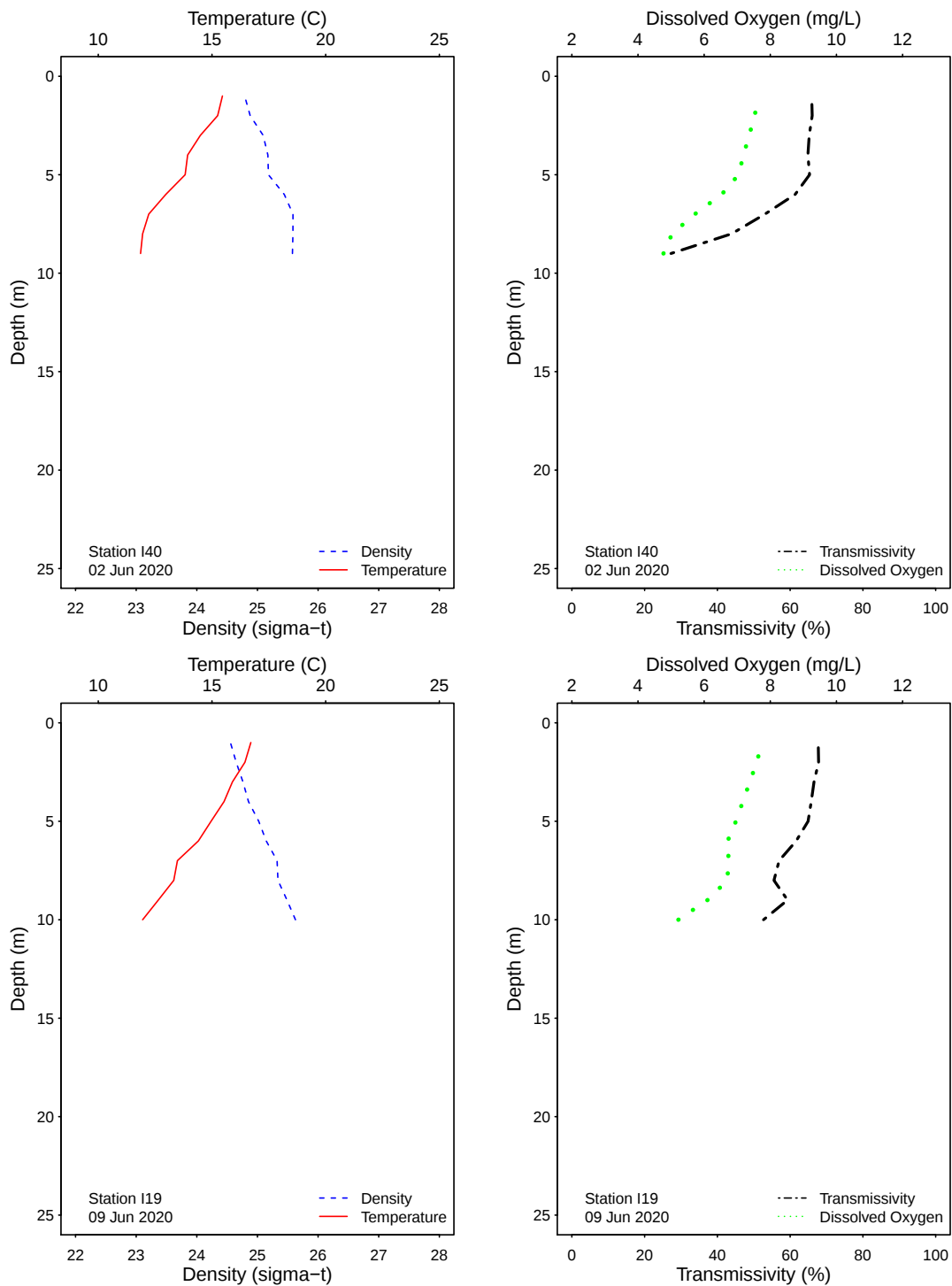


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

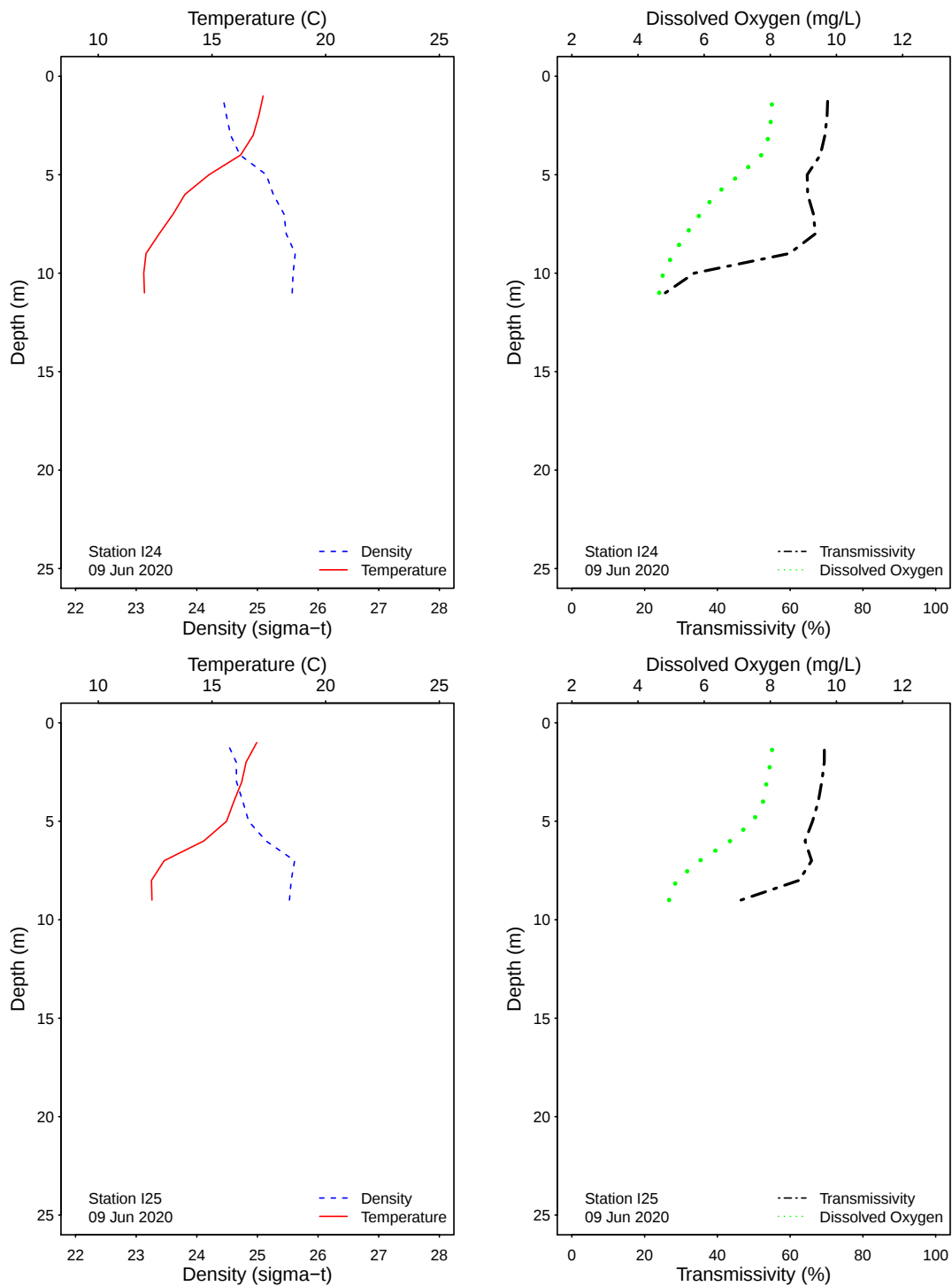


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

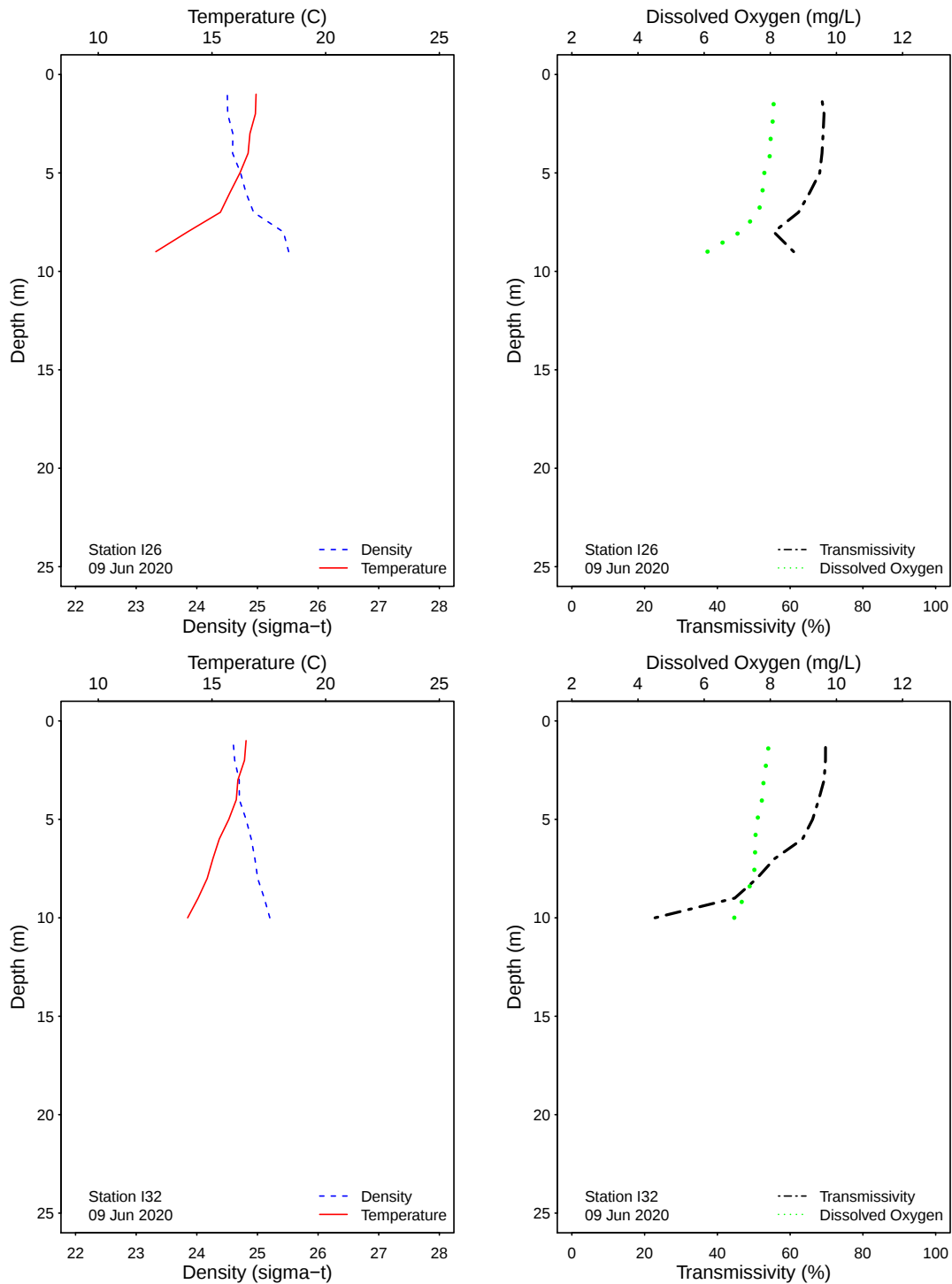


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

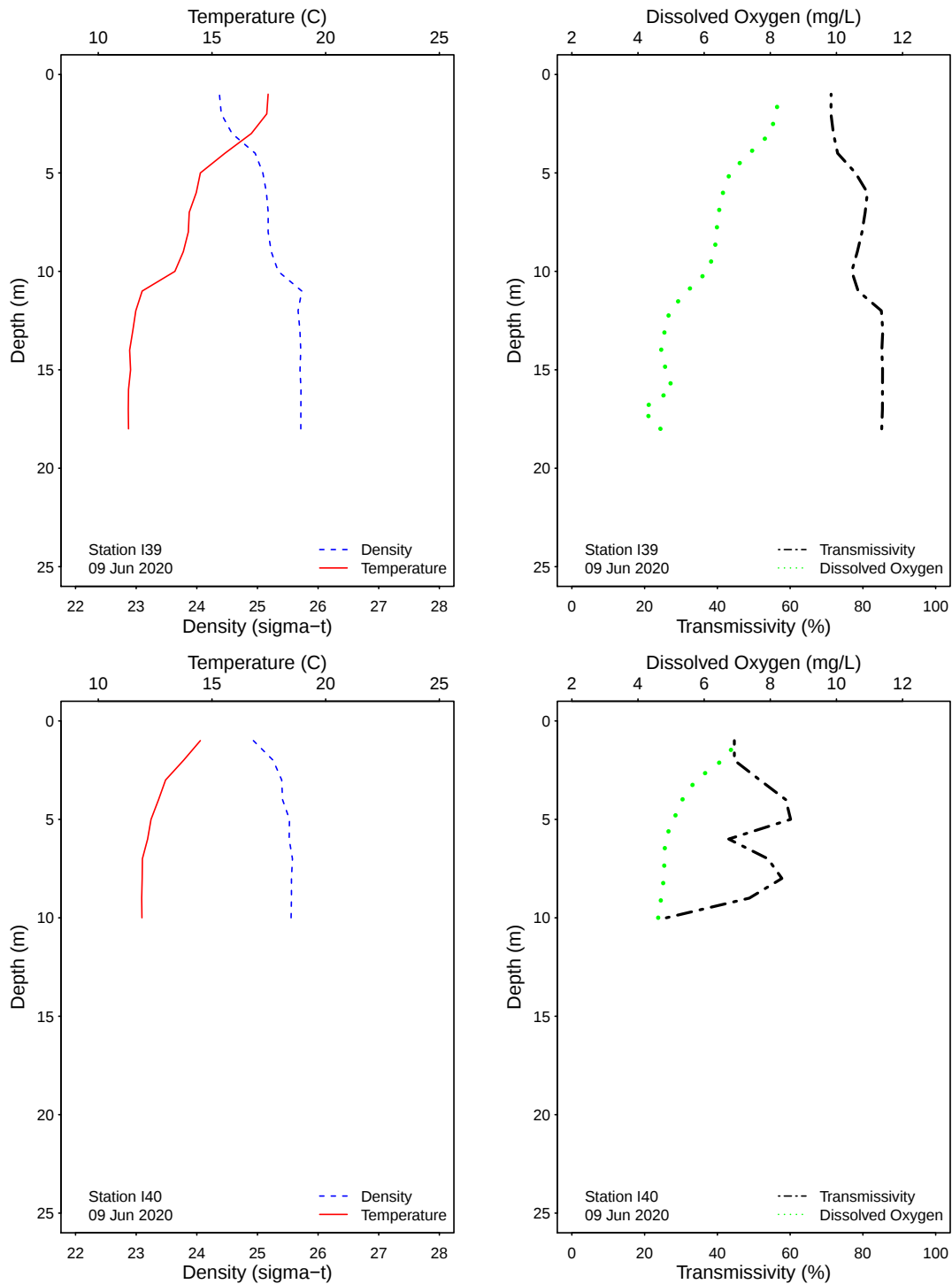


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

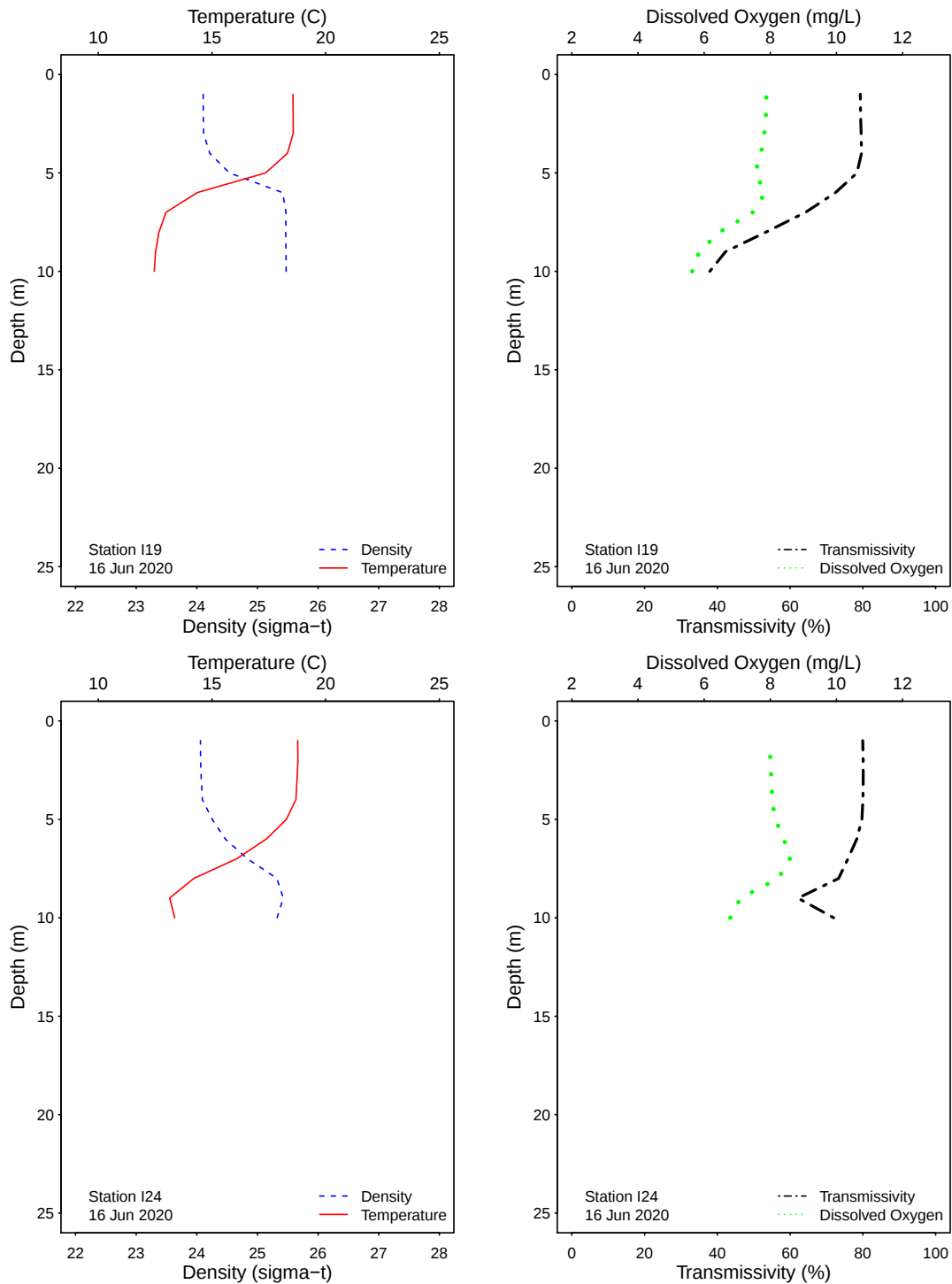


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

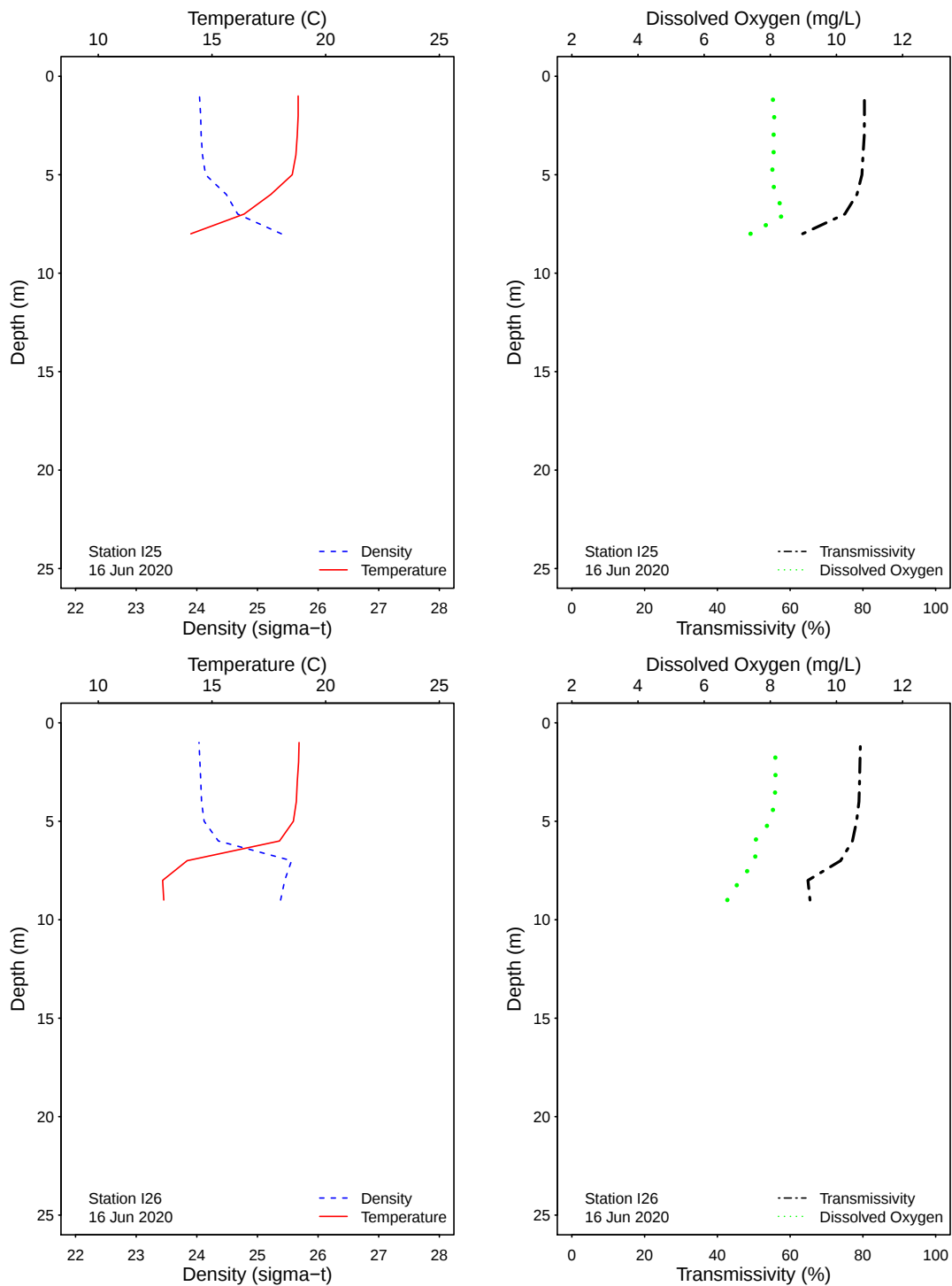


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

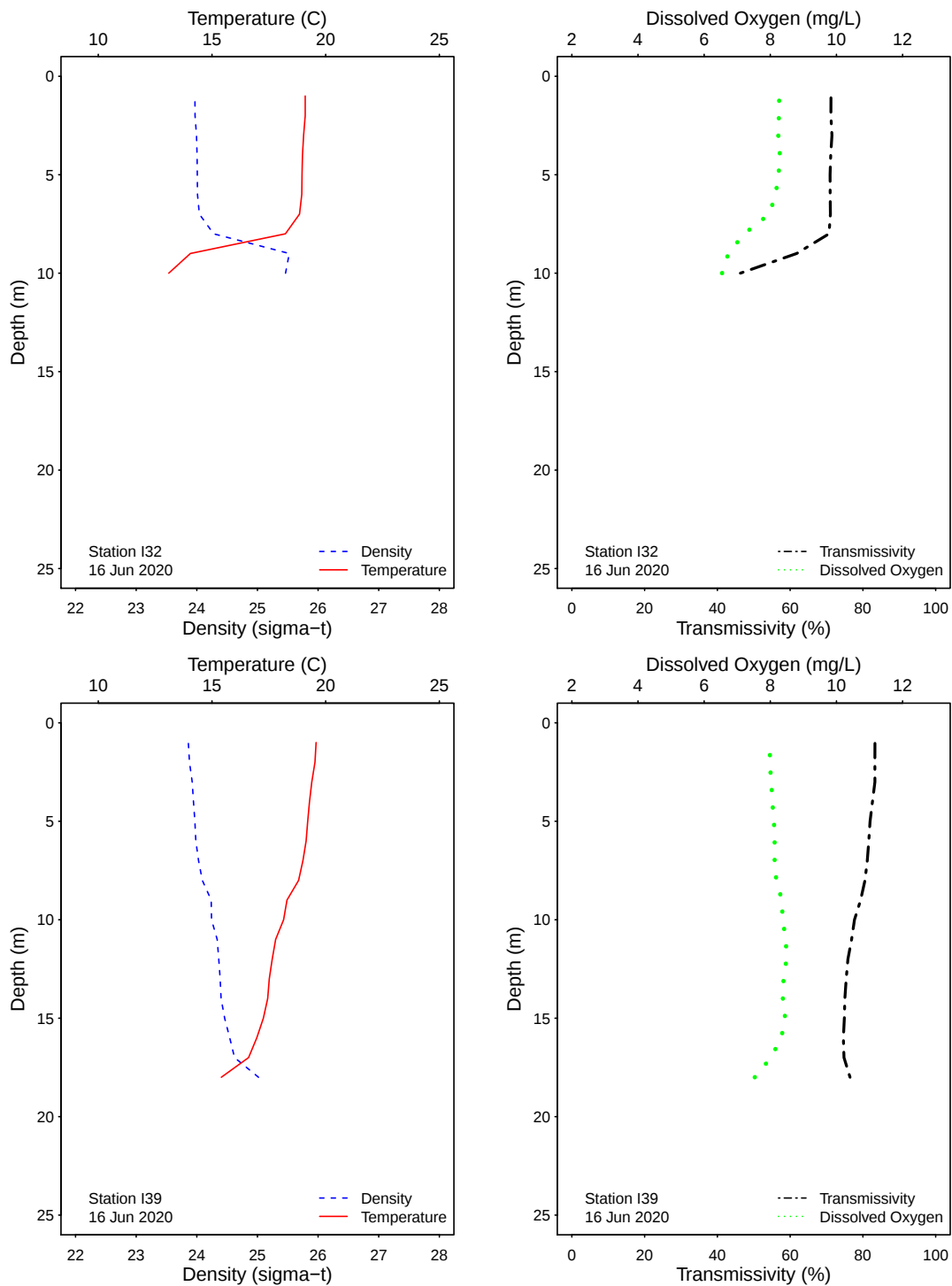


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

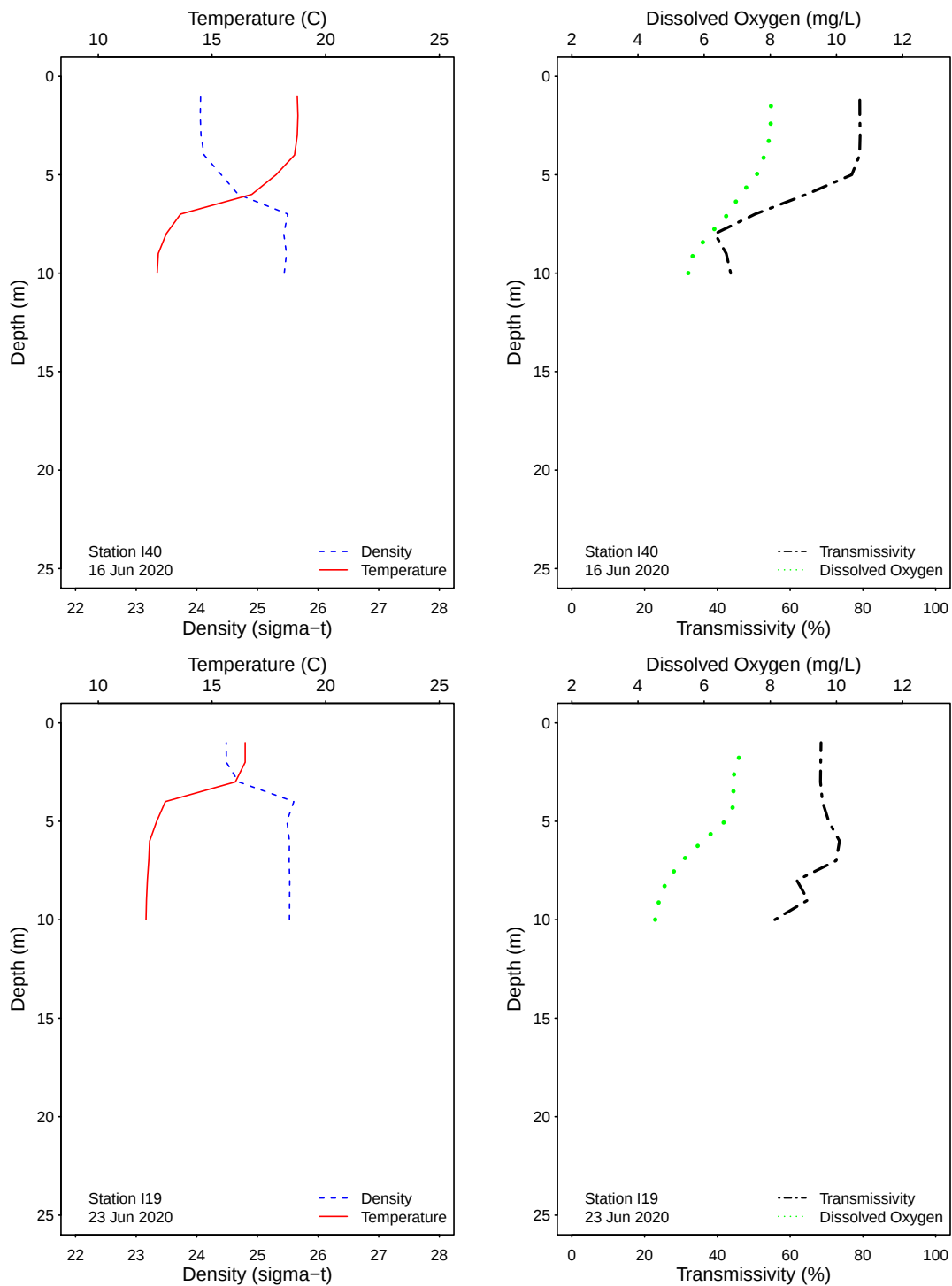


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

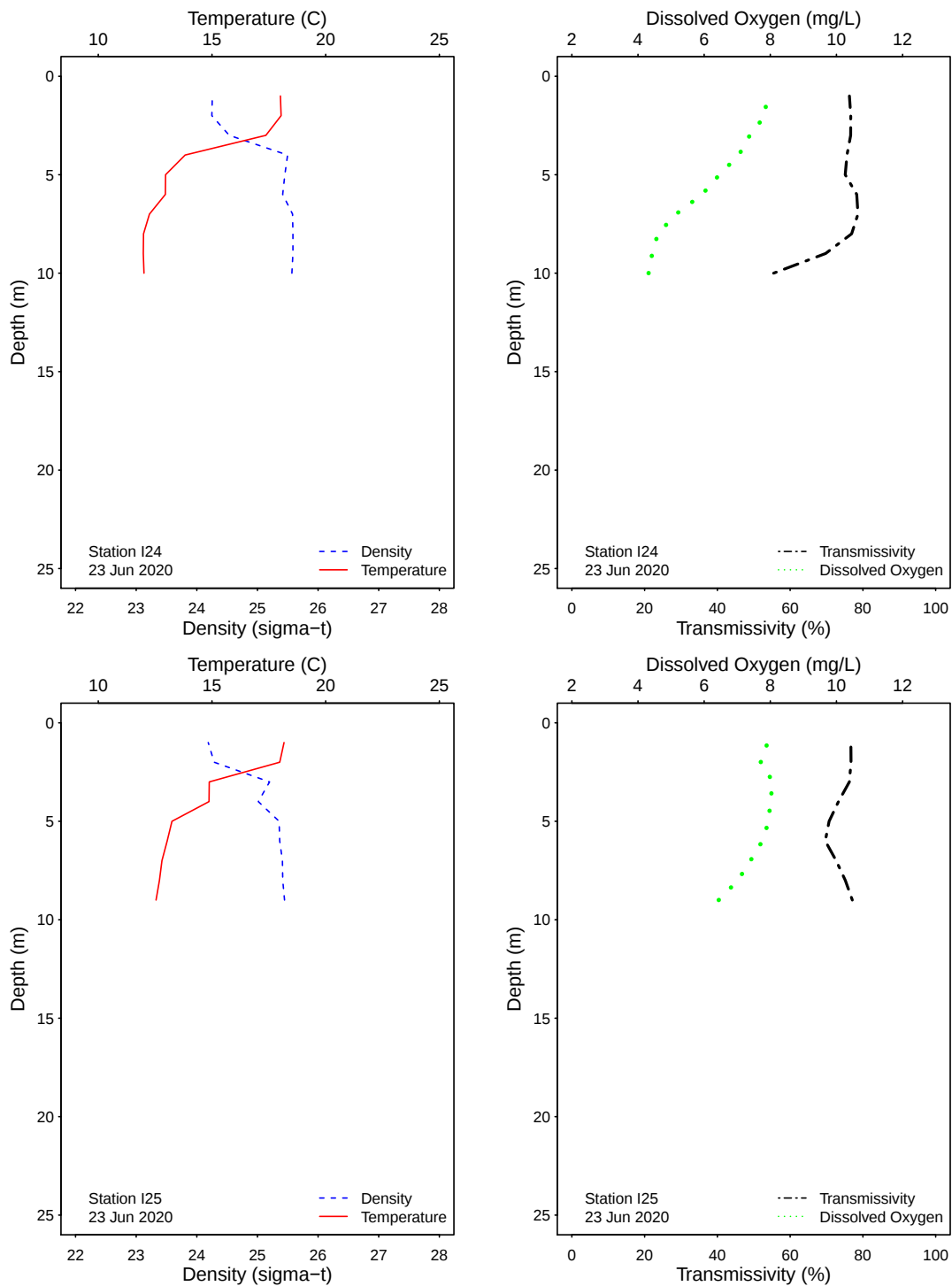


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

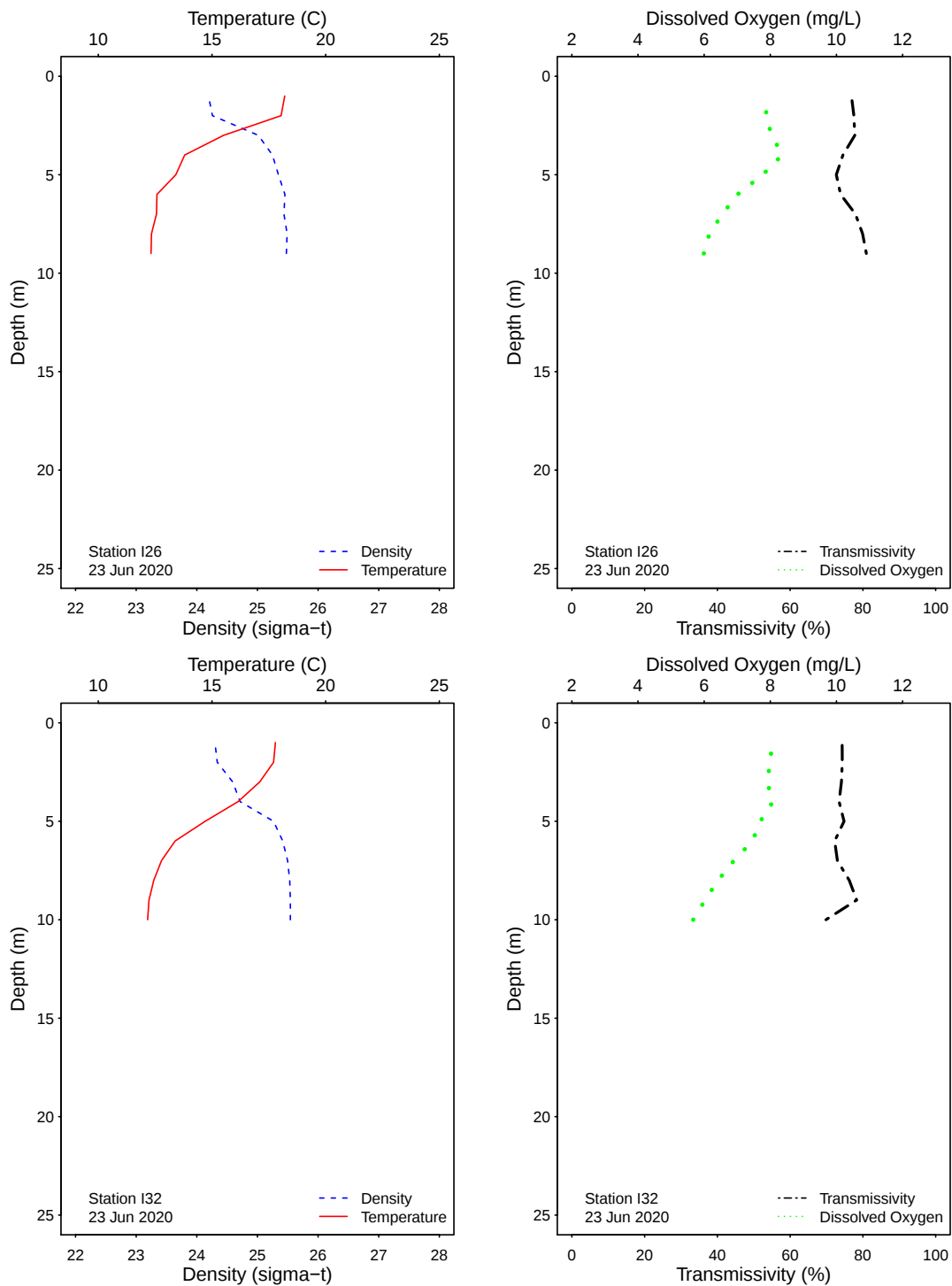


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

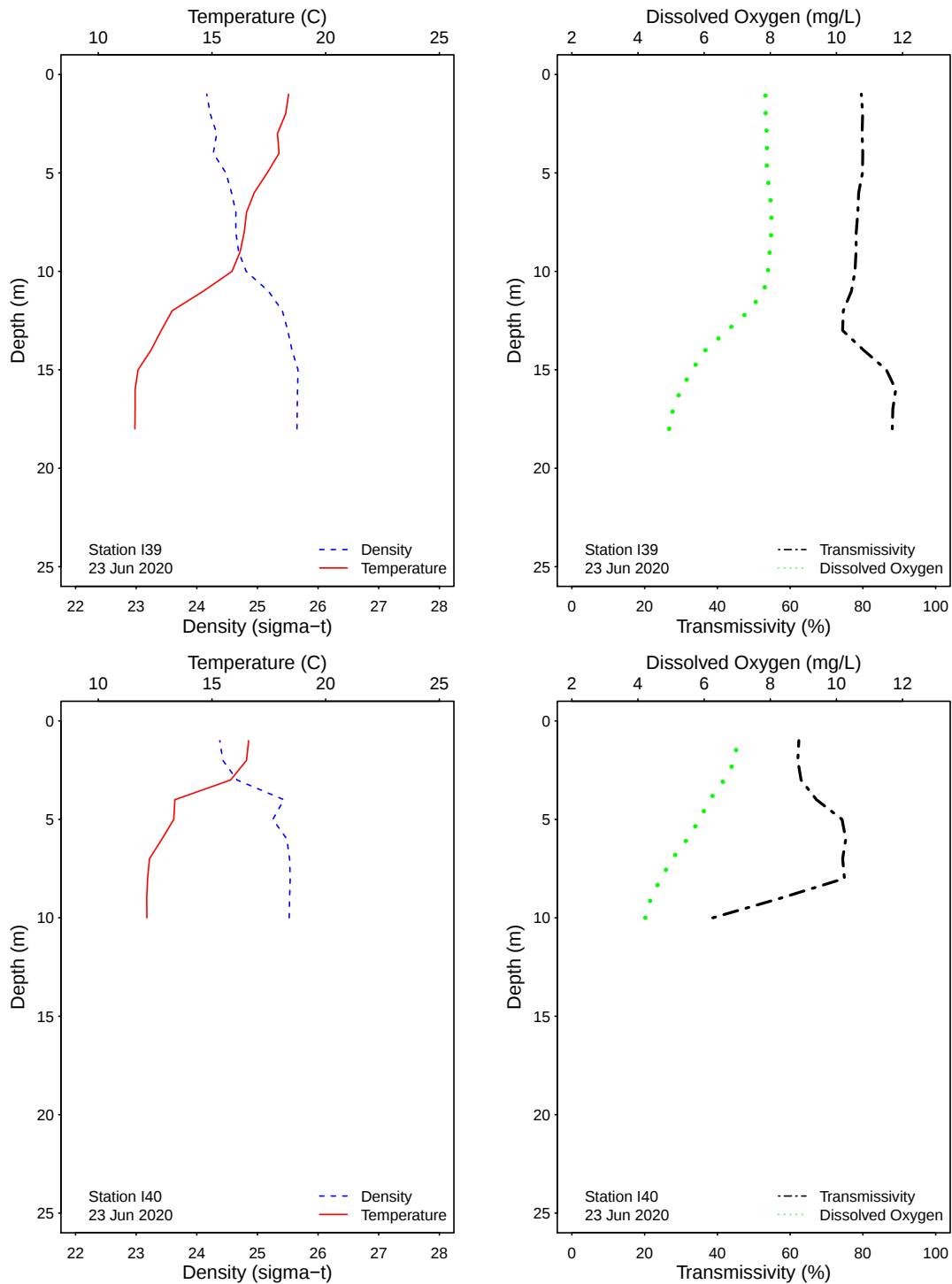


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

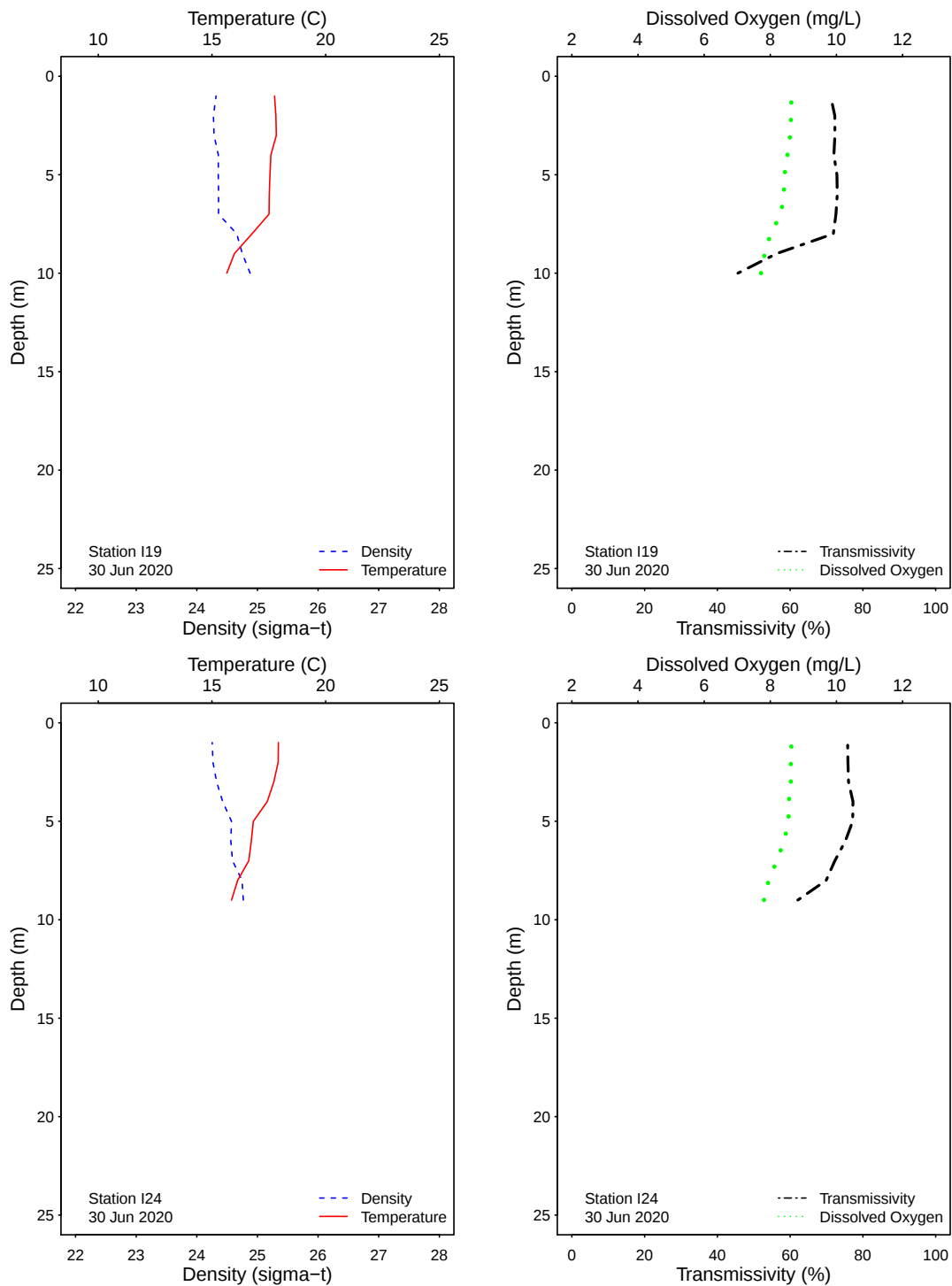


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

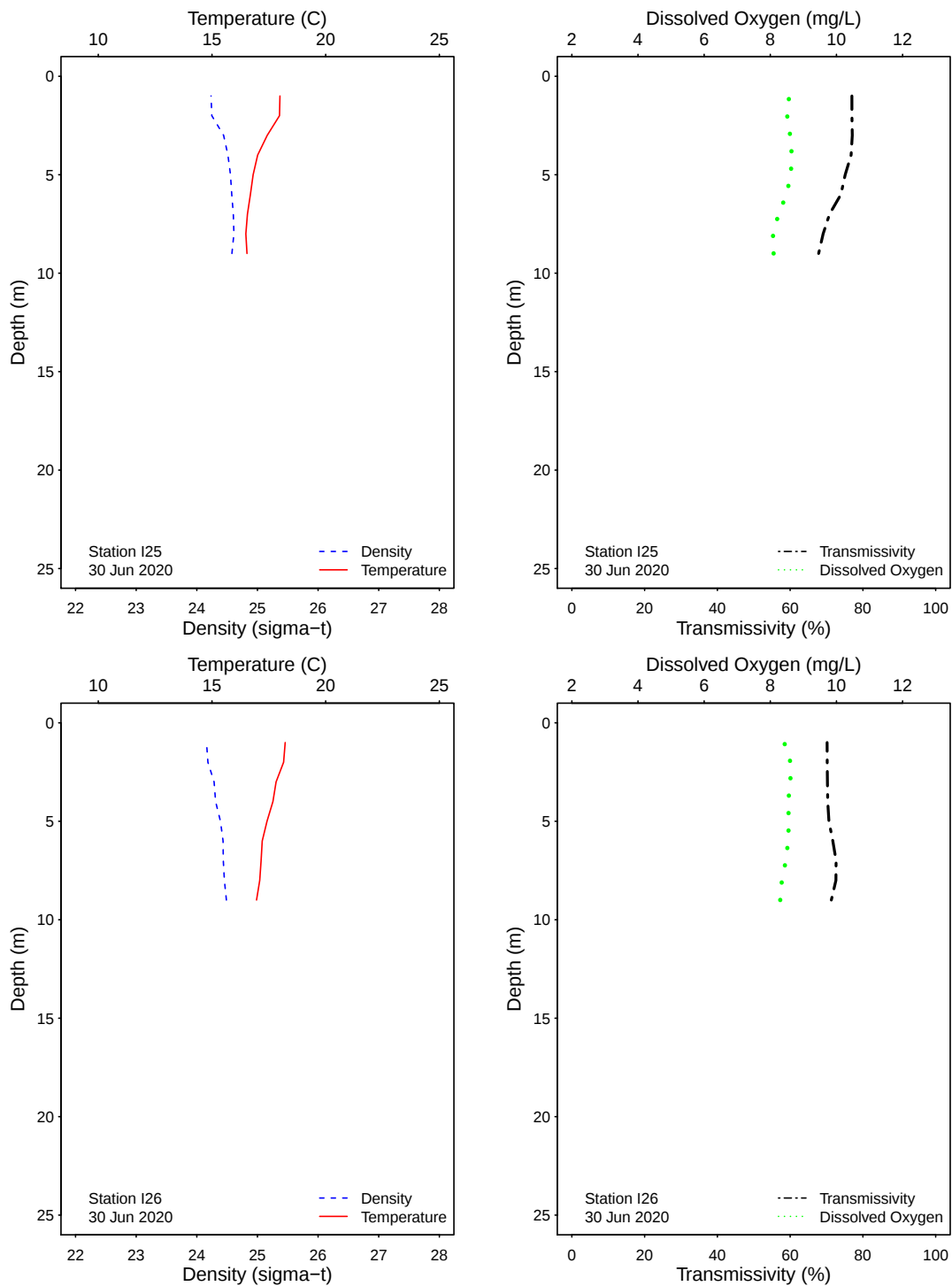


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

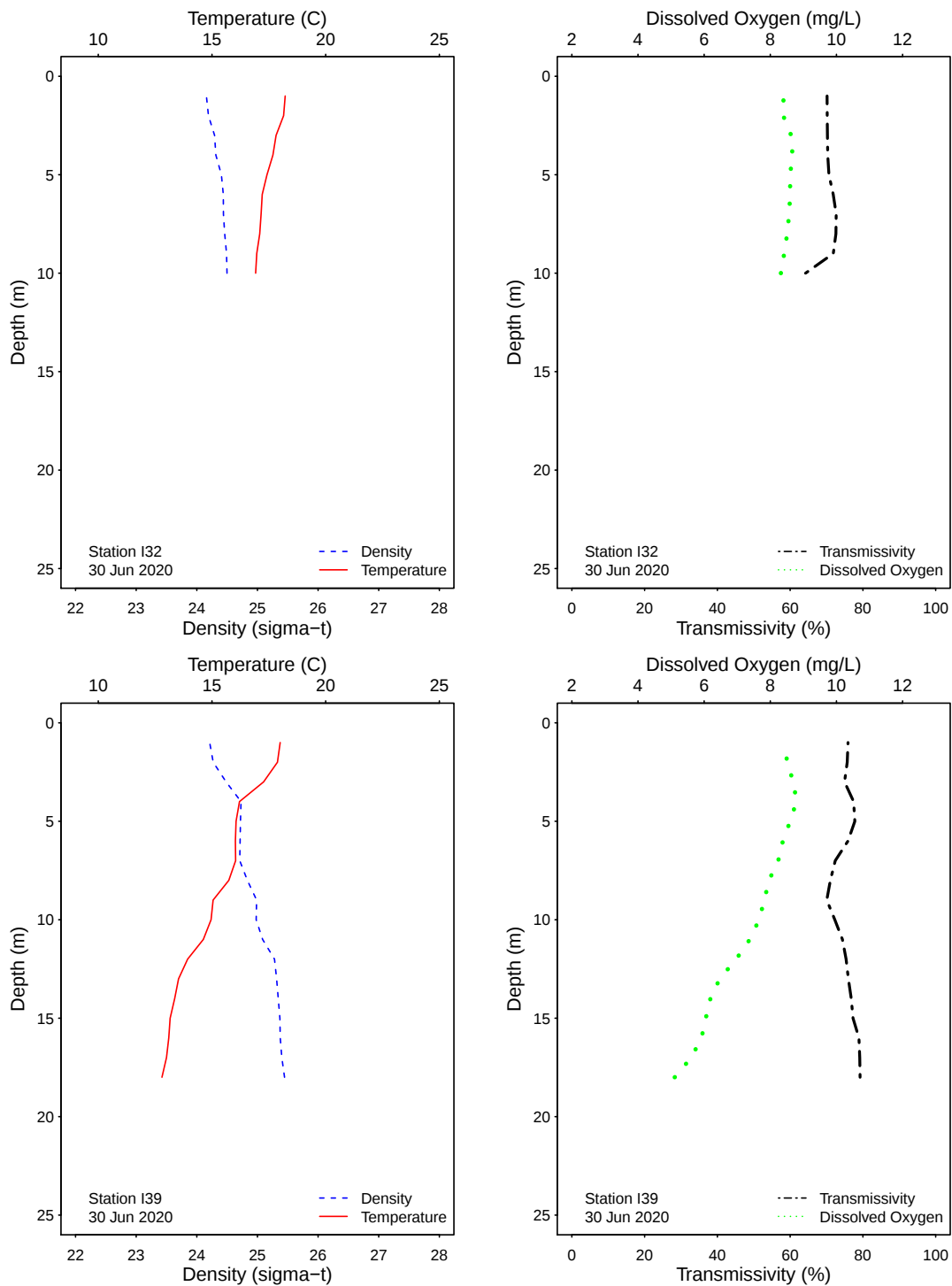


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

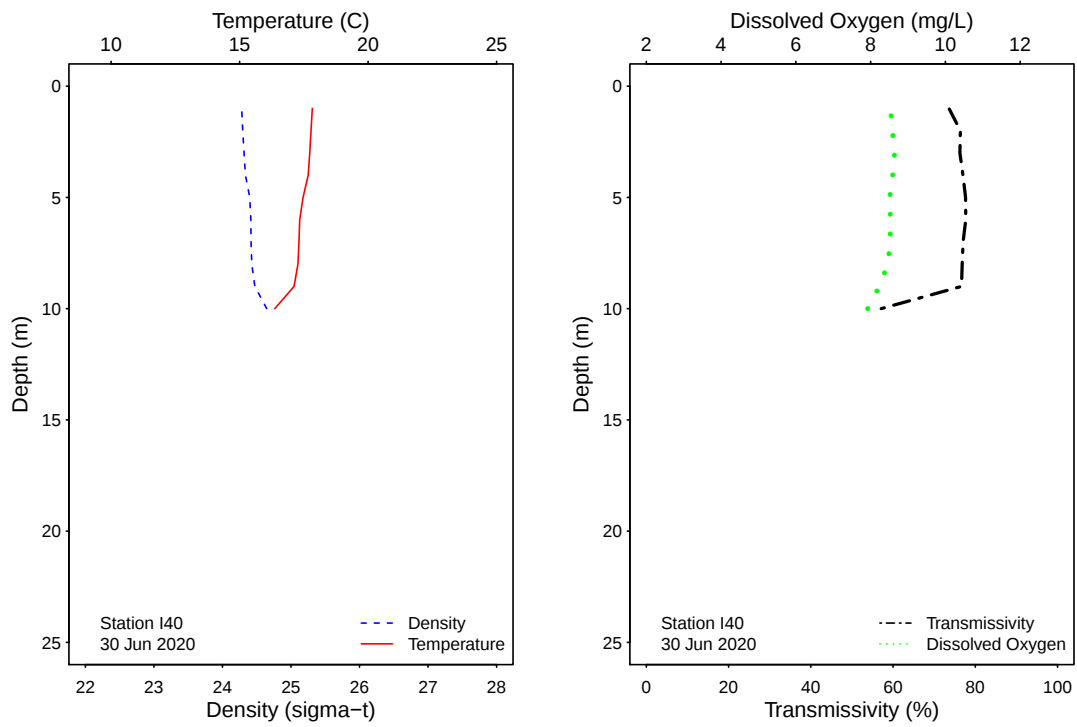


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

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* (Enter) are reported as CFU/100 mL.

Station	Date	Depth	Analyst	Procedure	Total	Fecal	Enter
I19	02 Jun 2020	6	JF	LAB DUPLICATE	<20	<2	4e
I19	09 Jun 2020	6	BS	LAB DUPLICATE	4e	<2	<2
I19	16 Jun 2020	6	LMA	LAB DUPLICATE	2e	<2	<2
I19	23 Jun 2020	6	BS	LAB DUPLICATE	20e	2e	8e
I19	30 Jun 2020	6	JF	LAB DUPLICATE	80e	6e	36e
I40	02 Jun 2020	6	JF	LAB DUPLICATE	20e	12e	12e
I40	09 Jun 2020	6	BS	LAB DUPLICATE	<2	<2	<2
I40	16 Jun 2020	6	AE	LAB DUPLICATE	<20	<2	<2
I40	23 Jun 2020	6	JF	LAB DUPLICATE	<20	6e	4e
I40	30 Jun 2020	6	JF	LAB DUPLICATE	32e	10e	10e
S12	02 Jun 2020		JF	FIELD DUPLICATE	380e	60	80e
S12	02 Jun 2020		JF	LAB DUPLICATE	300e	42	100e
S12	09 Jun 2020		JF	FIELD DUPLICATE	<20	2e	<2
S12	09 Jun 2020		JF	LAB DUPLICATE	<2	<2	<2
S12	16 Jun 2020		JF	FIELD DUPLICATE	1600e	320e	180e
S12	16 Jun 2020		JF	LAB DUPLICATE	1600e	300e	160e
S12	23 Jun 2020		AE	FIELD DUPLICATE	<20	20e	4e
S12	23 Jun 2020		AE	LAB DUPLICATE	<20	6e	2e
S12	30 Jun 2020		BS	FIELD DUPLICATE	200e	220e	120e
S12	30 Jun 2020		BS	LAB DUPLICATE	1600e	220e	160e

ns = not sampled

ND = no data

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