



SOUTH BAY OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT

SOUTH BAY WATER RECLAMATION PLANT

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

MARCH 2020

REVISED MARCH 2021

Environmental Monitoring and Technical Services
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April 1, 2021

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 revised March 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 revised report is being submitted to address data integrity issues identified to the Board in the letter dated October 22, 2020, subject: "San Diego NPDES Shoreline Sampling Program Report."

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 Public Utilities Director

PV/rk

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

INTRODUCTION

Monthly reports of water quality and ocean conditions from Playa Blanco, Mexico to Coronado, USA are submitted to the San Diego Regional Water Quality Control Board and U.S. EPA Region 9 in accordance with Order No. R9-2013-0006 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, Seasoft, to create water column profiles equivalent to one reading per meter. Additionally, CTD profile data for each water sample depth are presented with the bacteriological data.

Offshore Stations

Quarterly offshore water quality sampling is typically conducted over three days during February, May, August, and November for a total of 40 stations during each month (see station locations map). These offshore stations (I1–I40) are arranged in a grid surrounding the discharge site, and are generally located along the 9, 19, 28, 38, and 55-m depth contours. The seven offshore sites designated as kelp bed stations (described above) are included as part of the 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 chromomorphic 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.
- The 11 shore stations (S0, S2, S3, S4, S5, S6, S8, S9, S10, S11, S12) were sampled on March 3, 10, 17, 24, and 30. Subsequent to initial reporting, resamples collected at station S5 on March 14, 20, and 22, stations S4 and S10 on March 22, and stations S6 and S12 on March 26 were determined to be problematic. The results from these resamples have been removed from this report.
- During March, all 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:

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

- The 30-day geometric mean standards for total coliform and fecal coliform were exceeded at stations S4, S5, S6, S10, S11, and S12.
 - The 30-day geometric mean standard for *Enterococcus* was exceeded at stations S4, S5, S6, S8, S10, S11, and 12.
 - The single sample maximum (SSM) standards for total and fecal coliform were exceeded at stations S4, S5, S6, S8, S10, S11, and S12.
 - The SSM standard for *Enterococcus* was exceeded at stations S4, S5, S6, S8, S9, S10, 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 S4, S5, S6, S8, S10, 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 stations S0, S2, and S3 on one or more days during March.
- Notable observations included a sewage-like odor at stations S4, S5, S6, S10, and S11 on one or more days during March.
- 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 March 5, 9, 16, and 24.
- All seven kelp bed stations were out of compliance with various 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 station I19.
 - The 30-day geometric mean standard for *Enterococcus* was exceeded at stations I19 and I40.
 - The SSM standard for total coliform was exceeded at I19, I24, I25, I32, I39, and I40.
 - The SSM standard for fecal coliform was exceeded at stations I19, I24, I25, I26, I32, I39, and I40.
 - The SSM standard for *Enterococcus* was exceeded at stations I19, I24, I25, I32, I39, and I40.

- The SSM standard that states total coliform density shall not exceed 1,000 per 100 mL when the fecal coliform/total coliform ratio exceeds 0.1 was exceeded at stations I19, I24, I25, I26, I32, I39, and I40.
- Water column temperatures ranged from 14.02 to 17.38°C. The difference between surface and bottom waters ranged from 0.15 to 2.12°C.
- Concentrations of chlorophyll *a* ranged from 0.51 to 5.59 µg/L at the kelp bed stations.
- Notable observations included a sewage-like odor at stations I19 and I40 one or more days during March.

➤ **Offshore Water Quality Sampling**

- Quarterly sampling was not conducted during March at the offshore stations. The next quarterly sampling is scheduled for May 2020.

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TABLES AND FIGURES

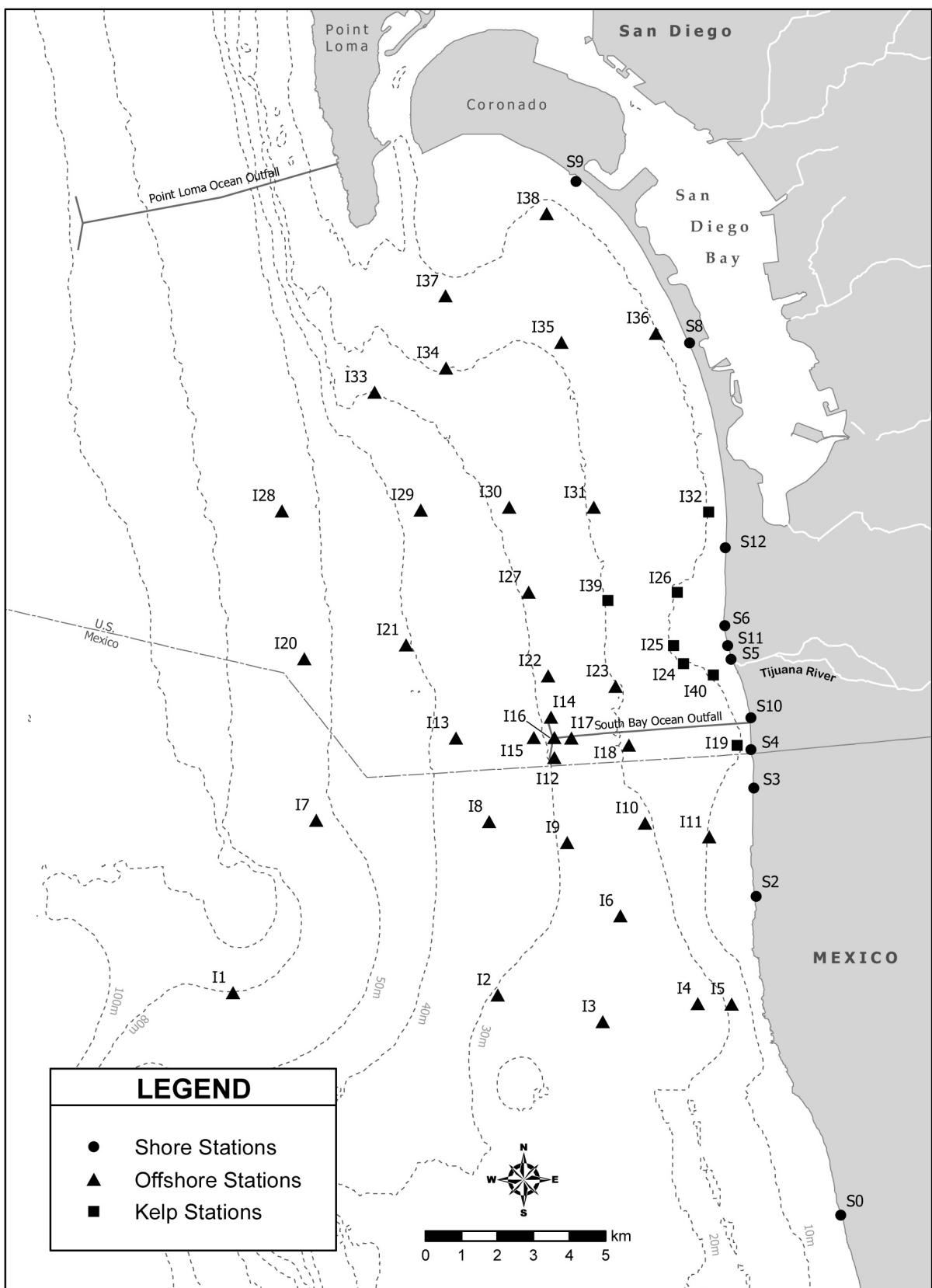


Figure 1.1 Station Map

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 Mar 2020	3228	3755	62	6	5	3286	119	3
02 Mar 2020	3228	3755	62	6	5	3286	119	3
03 Mar 2020	3734	4340	69	5	4	3712	73	3
04 Mar 2020	3734	4340	69	5	4	3712	73	3
05 Mar 2020	3544	6727	89	3	3	3505	76	3
06 Mar 2020	3385	6727	89	3	3	3088	76	3
07 Mar 2020	3898	7279	89	3	3	3505	76	3
08 Mar 2020	4289	7279	89	3	3	3833	76	3
09 Mar 2020	4834	7121	89	3	3	4210	76	3
10 Mar 2020	4176	7579	201	18	7	3738	152	16
11 Mar 2020	4176	7579	201	18	7	3738	152	16
12 Mar 2020	3128	7701	329	67	10	3149	161	84
13 Mar 2020	3128	7246	329	67	10	3616	203	84
14 Mar 2020	3128	7701	573	166	10	3616	378	201
15 Mar 2020	3128	7246	573	166	10	3616	378	201
16 Mar 2020	3128	7701	869	145	10	3616	604	341
17 Mar 2020	3584	7701	1201	257	20	4054	869	552
18 Mar 2020	3584	7701	1201	257	20	4054	869	552
19 Mar 2020	3790	7701	838	342	27	4054	600	875
20 Mar 2020	3981	7899	838	342	27	4271	600	875
21 Mar 2020	3981	7482	1783	342	27	5189	1067	875
22 Mar 2020	3494	8615	1783	342	27	4532	1067	875
23 Mar 2020	3494	8615	1783	342	27	4532	1067	875
24 Mar 2020	2820	9004	2275	525	46	3514	1441	1209
25 Mar 2020	2820	9004	2275	525	46	3514	1441	1209
26 Mar 2020	2542	8669	3110	567	101	3459	2272	1686
27 Mar 2020	2542	8669	3110	567	101	3459	2272	1686
28 Mar 2020	2328	8669	3110	567	101	3074	2272	1686
29 Mar 2020	2478	8669	3110	567	101	2892	2272	1686
30 Mar 2020	2860	9031	2827	360	61	3299	1763	860
31 Mar 2020	4582	9031	2827	360	61	5092	1763	860

* 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 Mar 2020	655	1494	14	2	2	1126	30	2
02 Mar 2020	655	1494	14	2	2	1126	30	2
03 Mar 2020	835	1840	13	2	2	1351	21	2
04 Mar 2020	835	1840	13	2	2	1351	21	2
05 Mar 2020	689	2771	19	2	2	1116	30	2
06 Mar 2020	593	2771	19	2	2	916	30	2
07 Mar 2020	762	3166	19	2	2	1116	30	2
08 Mar 2020	829	3166	19	2	2	1206	30	2
09 Mar 2020	960	2876	19	2	2	1317	30	2
10 Mar 2020	876	3001	45	9	5	1155	61	11
11 Mar 2020	876	3001	45	9	5	1155	61	11
12 Mar 2020	691	3633	108	37	6	950	91	65
13 Mar 2020	816	3289	108	37	6	1129	93	65
14 Mar 2020	816	3633	211	98	6	1129	187	155
15 Mar 2020	816	3289	211	98	6	1129	187	155
16 Mar 2020	816	3633	311	68	6	1129	314	216
17 Mar 2020	939	3633	466	93	9	1287	471	262
18 Mar 2020	939	3633	466	93	9	1287	471	262
19 Mar 2020	1247	3633	296	93	13	1330	333	320
20 Mar 2020	1205	3356	296	93	13	1293	333	320
21 Mar 2020	1205	3043	552	93	13	1563	631	320
22 Mar 2020	986	3240	552	93	13	1229	631	320
23 Mar 2020	986	3240	552	93	13	1229	631	320
24 Mar 2020	760	3018	717	119	16	903	664	462
25 Mar 2020	760	3018	717	119	16	903	664	462
26 Mar 2020	705	3738	945	119	27	875	867	522
27 Mar 2020	705	3738	945	119	27	875	867	522
28 Mar 2020	630	3738	945	119	27	731	867	522
29 Mar 2020	660	3738	945	119	27	685	867	522
30 Mar 2020	825	4040	769	84	16	854	595	299
31 Mar 2020	1287	4040	769	84	16	1291	595	299

* 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 Mar 2020	373	2331	14	3	2	565	29	3
02 Mar 2020	373	2331	14	3	2	565	29	3
03 Mar 2020	478	2620	14	3	2	702	23	3
04 Mar 2020	478	2620	14	3	2	702	23	3
05 Mar 2020	375	3664	19	3	2	502	29	2
06 Mar 2020	311	3344	19	3	2	394	29	2
07 Mar 2020	392	3595	19	3	2	496	29	2
08 Mar 2020	408	3645	19	3	2	546	29	2
09 Mar 2020	433	3180	19	3	2	564	29	2
10 Mar 2020	376	3041	45	11	6	512	53	13
11 Mar 2020	376	3041	45	11	6	512	53	13
12 Mar 2020	338	3246	108	22	6	449	82	61
13 Mar 2020	399	2936	108	22	6	537	106	61
14 Mar 2020	431	3246	211	54	6	553	208	136
15 Mar 2020	431	2936	211	54	6	553	208	136
16 Mar 2020	331	3246	250	37	6	440	341	134
17 Mar 2020	370	3246	384	49	7	510	506	158
18 Mar 2020	370	3246	384	49	7	510	506	158
19 Mar 2020	423	3246	274	49	9	534	413	188
20 Mar 2020	448	3001	274	49	9	548	413	188
21 Mar 2020	468	2718	507	49	9	584	701	188
22 Mar 2020	475	2663	507	49	9	590	701	188
23 Mar 2020	475	2663	507	49	9	590	701	188
24 Mar 2020	396	2454	546	55	7	458	655	231
25 Mar 2020	396	2454	546	55	7	458	655	231
26 Mar 2020	409	2743	616	55	9	498	774	269
27 Mar 2020	409	2743	616	55	9	498	774	269
28 Mar 2020	385	2743	616	55	9	475	774	269
29 Mar 2020	398	2743	616	55	9	440	774	269
30 Mar 2020	478	3026	428	39	9	548	547	165
31 Mar 2020	654	3026	428	39	9	712	547	165

* 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
01 Mar 2020	IC	ns	ns	ns	ns	IC	ns	ns
03 Mar 2020	E	E	IC	IC	IC	E	IC	IC
05 Mar 2020	IC	E	ns	ns	ns	IC	ns	ns
07 Mar 2020	E	E	ns	ns	ns	E	ns	ns
09 Mar 2020	E	IC	ns	ns	ns	E	ns	ns
10 Mar 2020	IC	E	E	E	IC	IC	IC	E
12 Mar 2020	IC	E	E	E	ns	IC	E	E
14 Mar 2020	ns	ns	E	E	ns	ns	E	E
16 Mar 2020	ns	E	E	IC	ns	ns	E	IC
17 Mar 2020	E	E	E	E	IC	E	E	E
19 Mar 2020	E	E	IC	IC	ns	E	IC	IC
20 Mar 2020	IC	ns	ns	ns	ns	IC	ns	ns
22 Mar 2020	ns	ns	ns	ns	ns	ns	ns	ns
24 Mar 2020	IC	E	E	E	IC	IC	E	E
26 Mar 2020	ns	IC	ns	IC	ns	ns	IC	ns
30 Mar 2020	E	E	IC	IC	IC	E	IC	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
01 Mar 2020	IC	ns	ns	ns	ns	IC	ns	ns
03 Mar 2020	E	E	IC	IC	IC	E	IC	IC
05 Mar 2020	E	E	ns	ns	ns	E	ns	ns
07 Mar 2020	E	E	ns	ns	ns	E	ns	ns
09 Mar 2020	E	E	ns	ns	ns	E	ns	ns
10 Mar 2020	E	E	E	E	IC	E	E	E
12 Mar 2020	IC	E	E	E	ns	IC	E	E
14 Mar 2020	ns	ns	E	E	ns	ns	E	E
16 Mar 2020	ns	E	E	IC	ns	ns	E	E
17 Mar 2020	E	E	E	E	IC	E	E	E
19 Mar 2020	E	E	IC	IC	ns	E	IC	IC
20 Mar 2020	E	ns	ns	ns	ns	E	ns	ns
22 Mar 2020	ns	ns	ns	ns	ns	ns	ns	ns
24 Mar 2020	IC	E	E	E	IC	IC	E	E
26 Mar 2020	ns	IC	ns	IC	ns	ns	IC	ns
30 Mar 2020	E	E	IC	IC	IC	E	IC	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
01 Mar 2020	IC	ns	ns	ns	ns	IC	ns	ns
03 Mar 2020	E	E	IC	IC	IC	E	IC	IC
05 Mar 2020	E	E	ns	ns	ns	E	ns	ns
07 Mar 2020	E	E	ns	ns	ns	E	ns	ns
09 Mar 2020	E	E	ns	ns	ns	E	ns	ns
10 Mar 2020	E	E	E	E	E	E	E	E
12 Mar 2020	E	E	E	E	IC	E	E	E
14 Mar 2020	E	ns	E	E	ns	E	E	E
16 Mar 2020	IC	E	E	IC	ns	IC	E	E
17 Mar 2020	E	E	E	E	IC	E	E	E
19 Mar 2020	E	E	IC	IC	ns	E	IC	IC
20 Mar 2020	E	ns	ns	ns	ns	E	ns	ns
22 Mar 2020	ns	ns	ns	ns	ns	ns	ns	ns
24 Mar 2020	IC	E	E	E	IC	IC	E	E
26 Mar 2020	ns	IC	ns	IC	ns	ns	IC	ns
30 Mar 2020	E	E	IC	IC	IC	E	IC	IC

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
01 Mar 2020	IC	ns	ns	ns	ns	IC	ns	ns
03 Mar 2020	E	E	IC	IC	IC	E	IC	IC
05 Mar 2020	E	E	ns	ns	ns	E	ns	ns
07 Mar 2020	E	E	ns	ns	ns	E	ns	ns
09 Mar 2020	E	E	ns	ns	ns	E	ns	ns
10 Mar 2020	E	E	E	E	IC	E	E	E
12 Mar 2020	IC	E	E	E	ns	IC	E	E
14 Mar 2020	ns	ns	E	E	ns	ns	E	E
16 Mar 2020	ns	E	E	IC	ns	ns	E	E
17 Mar 2020	E	E	E	IC	IC	E	E	IC
19 Mar 2020	E	E	IC	IC	ns	E	IC	IC
20 Mar 2020	E	ns	ns	ns	ns	E	ns	ns
22 Mar 2020	ns	ns	ns	ns	ns	ns	ns	ns
24 Mar 2020	IC	IC	E	IC	IC	IC	IC	E
26 Mar 2020	ns	IC	ns	IC	ns	ns	IC	ns
30 Mar 2020	E	E	IC	IC	IC	E	IC	IC

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* (Enter) 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	Enter	F:T
S0	03 Mar 2020	1055	>16000	5400	440	0.34
	10 Mar 2020	1040	>16000	3800e	4800	0.24
	17 Mar 2020	1025	>16000	2000e	2000e	0.12
	24 Mar 2020	945	840	240e	100	0.29
	30 Mar 2020	1010	6000	2800e	600	0.47
S2	03 Mar 2020	1127	800e	120e	340e	0.15
	10 Mar 2020	1155	6000	680	760	0.11
	17 Mar 2020	1110	3800e	480	380e	0.13
	24 Mar 2020	1035	36e	<2	12e	0.06
	30 Mar 2020	1115	8000	1000	64	0.12
S3	03 Mar 2020	1143	600	180e	16e	0.30
	10 Mar 2020	1125	4000	440	480	0.11
	17 Mar 2020	1055	4600	640	720	0.14
	24 Mar 2020	1025	200e	44	36e	0.22
	30 Mar 2020	1040	>16000	9000	500	0.56
S4	01 Mar 2020	1019	10e	4e	6e	0.40
	03 Mar 2020	746	>16000	>12000	>12000	0.75
	05 Mar 2020	741	9000	1200	360e	0.13
	07 Mar 2020	700	>16000	>12000	8000	0.75
	09 Mar 2020	904	>16000	4800	960	0.30
	10 Mar 2020	920	2200e	740	580	0.34
	12 Mar 2020	751	400e	46	140e	0.12
	14 Mar 2020	816	ns	ns	1200e	ns
	16 Mar 2020	1048	ns	ns	8e	ns
	17 Mar 2020	928	>16000	4400	2000e	0.28
	19 Mar 2020	1039	>16000	>12000	8000	0.75
	20 Mar 2020	957	7200	800e	1100	0.11
	22 Mar 2020		ns	ns	ns	ns
	24 Mar 2020	954	140e	20e	22e	0.14
	30 Mar 2020	821	>16000	>12000	6200	0.75
S5	03 Mar 2020	835	>16000	>12000	>12000	0.75
	05 Mar 2020	829	>16000	>12000	>12000	0.75
	07 Mar 2020	756	>16000	>12000	9200	0.75
	09 Mar 2020	821	5600	1000e	540	0.18
	10 Mar 2020	744	>16000	5000	4800	0.31
	12 Mar 2020	834	>16000	12000	4000	0.75
	14 Mar 2020		ns	ns	ns	ns
	16 Mar 2020	924	>16000	>12000	>12000	0.75
	17 Mar 2020	816	>16000	>12000	>12000	0.75
	19 Mar 2020	903	>16000	>12000	>12000	0.75
	20 Mar 2020		ns	ns	ns	ns
	22 Mar 2020		ns	ns	ns	ns
	24 Mar 2020	847	>16000	1200e	700	0.07
	26 Mar 2020	842	200e	240e	76	1.20
	30 Mar 2020	903	>16000	>12000	>12000	0.75
S6	03 Mar 2020	851	120e	8e	16e	0.07
	10 Mar 2020	807	12000	3400e	3800e	0.28
	12 Mar 2020	845	>16000	>12000	>12000	0.75
	14 Mar 2020	924	>16000	>12000	>12000	0.75

Station	Date	Time	Total	Fecal	Enter	F:T
S6	16 Mar 2020	948	>16000	4600	800	0.29
S6	17 Mar 2020	849	>16000	>12000	>12000	0.75
S6	19 Mar 2020	934	180e	20e	26e	0.11
S6	24 Mar 2020	902	>16000	5800	980	0.36
S6	26 Mar 2020		ns	ns	ns	ns
S6	30 Mar 2020	929	1200e	120e	16e	0.10
S8	03 Mar 2020	1009	<2	2e	<2	1.00
S8	10 Mar 2020	1043	15000	4600	2200e	0.31
S8	12 Mar 2020	958	11000	2000e	320e	0.18
S8	14 Mar 2020	957	>16000	>12000	4600	0.75
S8	16 Mar 2020	815	64	8e	4e	0.12
S8	17 Mar 2020	746	14000	800e	300e	0.06
S8	19 Mar 2020	801	20e	2e	2e	0.10
S8	24 Mar 2020	756	16000	820	140e	0.05
S8	26 Mar 2020	811	4e	<2	<2	0.50
S8	30 Mar 2020	1059	6e	4e	2e	0.67
S9	03 Mar 2020	1027	2e	<2	2e	1.00
S9	10 Mar 2020	1107	440	120e	340e	0.27
S9	12 Mar 2020	1019	ns	ns	2e	ns
S9	17 Mar 2020	726	300e	60e	24e	0.20
S9	24 Mar 2020	740	400	38e	<2	0.10
S9	30 Mar 2020	1123	8e	<2	8e	0.25
S10	01 Mar 2020	1025	18e	6e	14e	0.33
S10	03 Mar 2020	755	>16000	>12000	>12000	0.75
S10	05 Mar 2020	749	7600	1000	110	0.13
S10	07 Mar 2020	713	>16000	>12000	10000	0.75
S10	09 Mar 2020	915	13000	3800e	860	0.29
S10	10 Mar 2020	933	3200e	800	980	0.25
S10	12 Mar 2020	745	1400e	94	220e	0.07
S10	14 Mar 2020	823	ns	ns	820	ns
S10	16 Mar 2020	1035	ns	ns	18e	ns
S10	17 Mar 2020	935	>16000	6200	4600	0.39
S10	19 Mar 2020	1024	>16000	>12000	>12000	0.75
S10	20 Mar 2020	951	8400	900	840	0.11
S10	22 Mar 2020		ns	ns	ns	ns
S10	24 Mar 2020	947	100e	12e	8e	0.12
S10	30 Mar 2020	810	>16000	>12000	>12000	0.75
S11	03 Mar 2020	844	4e	2e	6e	0.50
S11	10 Mar 2020	756	10000	3800e	2000e	0.38
S11	12 Mar 2020	840	>16000	>12000	>12000	0.75
S11	14 Mar 2020	900	>16000	>12000	>12000	0.75
S11	16 Mar 2020	936	>16000	>12000	11000	0.75
S11	17 Mar 2020	824	>16000	>12000	>12000	0.75
S11	19 Mar 2020	921	320e	80	64	0.25
S11	24 Mar 2020	857	>16000	1000e	380e	0.06
S11	26 Mar 2020	900	120e	22e	18e	0.18
S11	30 Mar 2020	914	180e	20e	24e	0.11
S12	03 Mar 2020	902	<2	<2	<2	1.00
S12	10 Mar 2020	832	>16000	>12000	>12000	0.75
S12	12 Mar 2020	856	>16000	>12000	9000	0.75
S12	14 Mar 2020	934	>16000	>12000	7400	0.75
S12	16 Mar 2020	858	8200	1600e	120e	0.20
S12	17 Mar 2020	801	>16000	1000e	500	0.06
S12	19 Mar 2020	836	80e	10e	8e	0.12
S12	24 Mar 2020	809	>16000	8600	1200e	0.54
S12	26 Mar 2020		ns	ns	ns	ns

Station	Date	Time	Total	Fecal	Enteric	F:T
S12	30 Mar 2020	950	2e	<2	2e	1.00

ns = not sampled

ND = no data

Comments

Station	Date	Depth	Parameter	Comments
S4	01 Mar 2020			Resample for 2/28/20
S10	01 Mar 2020			Resample for 2/28/20
S4	05 Mar 2020			Resample
S5	05 Mar 2020			Resample
S10	05 Mar 2020			Resample
S5	07 Mar 2020			Resample
S10	07 Mar 2020			Resample
S4	07 Mar 2020			Resample
S4	09 Mar 2020			Resample
S5	09 Mar 2020			Resample
S10	09 Mar 2020			Resample
S4	12 Mar 2020			Resample
S6	12 Mar 2020			Resample
S5	12 Mar 2020			Resample
S8	12 Mar 2020			Resample
S9	12 Mar 2020			Resample
S10	12 Mar 2020			Resample
S11	12 Mar 2020			Resample
S12	12 Mar 2020			Resample
S4	14 Mar 2020			Resample
S5	14 Mar 2020			Resample
S6	14 Mar 2020			Resample
S8	14 Mar 2020			Resample
S10	14 Mar 2020			Resample
S11	14 Mar 2020			Resample
S12	14 Mar 2020			Resample
S4	16 Mar 2020			Resample
S5	16 Mar 2020			Resample
S6	16 Mar 2020			Resample
S8	16 Mar 2020			Resample
S10	16 Mar 2020			Resample
S11	16 Mar 2020			Resample
S12	16 Mar 2020			Resample
S4	19 Mar 2020			Resample
S5	19 Mar 2020			Resample
S6	19 Mar 2020			Resample
S8	19 Mar 2020			Resample
S10	19 Mar 2020			Resample
S11	19 Mar 2020			Resample
S12	19 Mar 2020			Resample
S4	20 Mar 2020			Resample
S10	20 Mar 2020			Resample
S5	26 Mar 2020			Resample
S8	26 Mar 2020			Resample
S11	26 Mar 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	03 Mar 2020	Arrive Time	1055
S0	03 Mar 2020	Weather	Sunny
S0	03 Mar 2020	Wind Speed (kts)	1.4
S0	03 Mar 2020	Wind Dir	NW
S0	03 Mar 2020	Animal Life	15 Seagulls
S0	03 Mar 2020	Floatables	None
S0	03 Mar 2020	Water Color	Green
S0	03 Mar 2020	Current Direction	N
S0	03 Mar 2020	Water Temp (C)	15
S0	03 Mar 2020	Wave Height Low (ft)	3
S0	03 Mar 2020	High Tide (ft)	2.8
S0	03 Mar 2020	High Tide Time	1839
S0	03 Mar 2020	Low Tide (ft)	0.6
S0	03 Mar 2020	Low Tide Time	1108
S0	03 Mar 2020	Comments	Kelp; Algae; Water turbid; 0.5 L/sec water flowing from storm drain
S0	10 Mar 2020	Arrive Time	1040
S0	10 Mar 2020	Weather	Moderate Rain
S0	10 Mar 2020	Wind Speed (kts)	3.4
S0	10 Mar 2020	Wind Dir	NE
S0	10 Mar 2020	Animal Life	None
S0	10 Mar 2020	Floatables	None
S0	10 Mar 2020	Water Color	Green
S0	10 Mar 2020	Current Direction	N
S0	10 Mar 2020	Water Temp (C)	17
S0	10 Mar 2020	Wave Height Low (ft)	3
S0	10 Mar 2020	High Tide (ft)	5.9
S0	10 Mar 2020	High Tide Time	1011
S0	10 Mar 2020	Low Tide (ft)	-1
S0	10 Mar 2020	Low Tide Time	1643
S0	10 Mar 2020	Comments	Water clear; 1.0 L/sec water flowing from storm drain
S0	17 Mar 2020	Arrive Time	1025
S0	17 Mar 2020	Weather	Cloudy
S0	17 Mar 2020	Wind Speed (kts)	2.7
S0	17 Mar 2020	Wind Dir	S
S0	17 Mar 2020	Animal Life	2 Dogs; 20 Seagulls
S0	17 Mar 2020	Floatables	None
S0	17 Mar 2020	Water Color	Green
S0	17 Mar 2020	Current Direction	S
S0	17 Mar 2020	Water Temp (C)	16
S0	17 Mar 2020	Wave Height Low (ft)	2
S0	17 Mar 2020	High Tide (ft)	4.5
S0	17 Mar 2020	High Tide Time	437
S0	17 Mar 2020	Low Tide (ft)	-0.1
S0	17 Mar 2020	Low Tide Time	1229
S0	17 Mar 2020	Comments	Kelp; Algae; Water turbid; 2.0 L/sec water flowing from storm drain
S0	24 Mar 2020	Arrive Time	945
S0	24 Mar 2020	Weather	Sunny
S0	24 Mar 2020	Wind Speed (kts)	1.6
S0	24 Mar 2020	Wind Dir	NW
S0	24 Mar 2020	Animal Life	1 Dog; 15 Seagulls
S0	24 Mar 2020	Floatables	None

Station	Date	Parameter	Value
S0	24 Mar 2020	Water Color	Green
S0	24 Mar 2020	Current Direction	N
S0	24 Mar 2020	Water Temp (C)	15
S0	24 Mar 2020	Wave Height Low (ft)	3
S0	24 Mar 2020	High Tide (ft)	4.8
S0	24 Mar 2020	High Tide Time	952
S0	24 Mar 2020	Low Tide (ft)	0.5
S0	24 Mar 2020	Low Tide Time	355
S0	24 Mar 2020	Comments	Kelp; Algae; Water turbid; 2.0L/sec water flowing from storm drain
S0	30 Mar 2020	Arrive Time	1010
S0	30 Mar 2020	Weather	Sunny
S0	30 Mar 2020	Wind Speed (kts)	1.8
S0	30 Mar 2020	Wind Dir	NE
S0	30 Mar 2020	Animal Life	10 Seagulls
S0	30 Mar 2020	Floatables	None
S0	30 Mar 2020	Water Color	Green
S0	30 Mar 2020	Current Direction	N
S0	30 Mar 2020	Water Temp (C)	16
S0	30 Mar 2020	Wave Height Low (ft)	3
S0	30 Mar 2020	High Tide (ft)	2.5
S0	30 Mar 2020	High Tide Time	1459
S0	30 Mar 2020	Low Tide (ft)	0.8
S0	30 Mar 2020	Low Tide Time	814
S0	30 Mar 2020	Comments	Kelp; Algae; Water clear; 0.5 L/sec water flowing from storm drain
S2	03 Mar 2020	Arrive Time	1127
S2	03 Mar 2020	Weather	Sunny
S2	03 Mar 2020	Wind Speed (kts)	1.6
S2	03 Mar 2020	Wind Dir	NW
S2	03 Mar 2020	Animal Life	1 Dog; 20 Seagulls
S2	03 Mar 2020	Floatables	None
S2	03 Mar 2020	Water Color	Green
S2	03 Mar 2020	Current Direction	N
S2	03 Mar 2020	Water Temp (C)	15
S2	03 Mar 2020	Wave Height Low (ft)	3
S2	03 Mar 2020	High Tide (ft)	2.8
S2	03 Mar 2020	High Tide Time	1839
S2	03 Mar 2020	Low Tide (ft)	0.6
S2	03 Mar 2020	Low Tide Time	1108
S2	03 Mar 2020	Comments	Kelp; Algae; 2 Swimmers; Water turbid; No flow from storm drain
S2	10 Mar 2020	Arrive Time	1155
S2	10 Mar 2020	Weather	Moderate Rain
S2	10 Mar 2020	Wind Speed (kts)	1.7
S2	10 Mar 2020	Wind Dir	NE
S2	10 Mar 2020	Animal Life	20 Seagulls
S2	10 Mar 2020	Floatables	None
S2	10 Mar 2020	Water Color	Green
S2	10 Mar 2020	Current Direction	N
S2	10 Mar 2020	Water Temp (C)	17
S2	10 Mar 2020	Wave Height Low (ft)	3
S2	10 Mar 2020	High Tide (ft)	5.9
S2	10 Mar 2020	High Tide Time	1011
S2	10 Mar 2020	Low Tide (ft)	-1
S2	10 Mar 2020	Low Tide Time	1643
S2	10 Mar 2020	Comments	Water turbid; No flow from storm drain

Station	Date	Parameter	Value
S2	17 Mar 2020	Arrive Time	1110
S2	17 Mar 2020	Weather	Cloudy
S2	17 Mar 2020	Wind Speed (kts)	2.6
S2	17 Mar 2020	Wind Dir	S
S2	17 Mar 2020	Animal Life	20 Seagulls
S2	17 Mar 2020	Floatables	None
S2	17 Mar 2020	Water Color	Green
S2	17 Mar 2020	Current Direction	N
S2	17 Mar 2020	Water Temp (C)	16
S2	17 Mar 2020	Wave Height Low (ft)	2
S2	17 Mar 2020	High Tide (ft)	4.5
S2	17 Mar 2020	High Tide Time	437
S2	17 Mar 2020	Low Tide (ft)	-0.1
S2	17 Mar 2020	Low Tide Time	1229
S2	17 Mar 2020	Comments	Kelp; Algae; Water turbid; No flow from storm drain
S2	24 Mar 2020	Arrive Time	1035
S2	24 Mar 2020	Weather	Sunny
S2	24 Mar 2020	Wind Speed (kts)	1.6
S2	24 Mar 2020	Wind Dir	NW
S2	24 Mar 2020	Animal Life	15 Seagulls
S2	24 Mar 2020	Floatables	None
S2	24 Mar 2020	Water Color	Green
S2	24 Mar 2020	Current Direction	N
S2	24 Mar 2020	Water Temp (C)	15
S2	24 Mar 2020	Wave Height Low (ft)	3
S2	24 Mar 2020	High Tide (ft)	4.8
S2	24 Mar 2020	High Tide Time	952
S2	24 Mar 2020	Low Tide (ft)	0.1
S2	24 Mar 2020	Low Tide Time	1611
S2	24 Mar 2020	Comments	Kelp; Algae; 2 Fishermen; Water turbid; No flow from storm drain
S2	30 Mar 2020	Arrive Time	1115
S2	30 Mar 2020	Weather	Sunny
S2	30 Mar 2020	Wind Speed (kts)	2.4
S2	30 Mar 2020	Wind Dir	NE
S2	30 Mar 2020	Animal Life	10 Seagulls
S2	30 Mar 2020	Floatables	None
S2	30 Mar 2020	Water Color	Green
S2	30 Mar 2020	Current Direction	N
S2	30 Mar 2020	Water Temp (C)	16
S2	30 Mar 2020	Wave Height Low (ft)	3
S2	30 Mar 2020	High Tide (ft)	2.5
S2	30 Mar 2020	High Tide Time	1459
S2	30 Mar 2020	Low Tide (ft)	0.8
S2	30 Mar 2020	Low Tide Time	814
S2	30 Mar 2020	Comments	Kelp; Algae; 10 Persons; Water clear; No flow from storm drain
S3	03 Mar 2020	Arrive Time	1143
S3	03 Mar 2020	Weather	Sunny
S3	03 Mar 2020	Wind Speed (kts)	1.2
S3	03 Mar 2020	Wind Dir	NW
S3	03 Mar 2020	Animal Life	2 Dogs; 20 Seagulls
S3	03 Mar 2020	Floatables	None
S3	03 Mar 2020	Water Color	Green
S3	03 Mar 2020	Current Direction	N
S3	03 Mar 2020	Water Temp (C)	15
S3	03 Mar 2020	Wave Height Low (ft)	3
S3	03 Mar 2020	High Tide (ft)	2.8

Station	Date	Parameter	Value
S3	03 Mar 2020	High Tide Time	1839
S3	03 Mar 2020	Low Tide (ft)	0.6
S3	03 Mar 2020	Low Tide Time	1108
S3	03 Mar 2020	Comments	Kelp; Algae; Water turbid; 1.0 L/sec water flowing from storm drain
S3	10 Mar 2020	Arrive Time	1125
S3	10 Mar 2020	Weather	Cloudy
S3	10 Mar 2020	Wind Speed (kts)	1.7
S3	10 Mar 2020	Wind Dir	NE
S3	10 Mar 2020	Animal Life	5 Seagulls
S3	10 Mar 2020	Floatables	None
S3	10 Mar 2020	Water Color	Green
S3	10 Mar 2020	Current Direction	N
S3	10 Mar 2020	Water Temp (C)	17
S3	10 Mar 2020	Wave Height Low (ft)	3
S3	10 Mar 2020	High Tide (ft)	5.9
S3	10 Mar 2020	High Tide Time	1011
S3	10 Mar 2020	Low Tide (ft)	-1
S3	10 Mar 2020	Low Tide Time	1643
S3	10 Mar 2020	Comments	Kelp; Algae; Water turbid; 0.5L/sec water flowing from storm drain
S3	17 Mar 2020	Arrive Time	1055
S3	17 Mar 2020	Weather	Cloudy
S3	17 Mar 2020	Wind Speed (kts)	3.1
S3	17 Mar 2020	Wind Dir	S
S3	17 Mar 2020	Animal Life	1 Dog; 20 Seagulls
S3	17 Mar 2020	Floatables	None
S3	17 Mar 2020	Water Color	Green
S3	17 Mar 2020	Current Direction	N
S3	17 Mar 2020	Water Temp (C)	16
S3	17 Mar 2020	Wave Height Low (ft)	2
S3	17 Mar 2020	High Tide (ft)	4.5
S3	17 Mar 2020	High Tide Time	437
S3	17 Mar 2020	Low Tide (ft)	-0.1
S3	17 Mar 2020	Low Tide Time	1229
S3	17 Mar 2020	Comments	Kelp; Algae; Water turbid; 1.0 L/sec water flowing from storm drain
S3	24 Mar 2020	Arrive Time	1025
S3	24 Mar 2020	Weather	Sunny
S3	24 Mar 2020	Wind Speed (kts)	1.4
S3	24 Mar 2020	Wind Dir	NW
S3	24 Mar 2020	Animal Life	5 Dogs; 15 Seagulls
S3	24 Mar 2020	Floatables	None
S3	24 Mar 2020	Water Color	Green
S3	24 Mar 2020	Current Direction	N
S3	24 Mar 2020	Water Temp (C)	15
S3	24 Mar 2020	Wave Height Low (ft)	3
S3	24 Mar 2020	High Tide (ft)	4.8
S3	24 Mar 2020	High Tide Time	952
S3	24 Mar 2020	Low Tide (ft)	0.1
S3	24 Mar 2020	Low Tide Time	1611
S3	24 Mar 2020	Comments	Kelp; Algae; Water turbid; 0.5L/sec water flowing from storm drain
S3	30 Mar 2020	Arrive Time	1040
S3	30 Mar 2020	Weather	Sunny
S3	30 Mar 2020	Wind Speed (kts)	2
S3	30 Mar 2020	Wind Dir	NE

Station	Date	Parameter	Value
S3	30 Mar 2020	Animal Life	20 Seagulls
S3	30 Mar 2020	Floatables	None
S3	30 Mar 2020	Water Color	Green
S3	30 Mar 2020	Current Direction	N
S3	30 Mar 2020	Water Temp (C)	16
S3	30 Mar 2020	Wave Height Low (ft)	3
S3	30 Mar 2020	High Tide (ft)	2.5
S3	30 Mar 2020	High Tide Time	1459
S3	30 Mar 2020	Low Tide (ft)	0.8
S3	30 Mar 2020	Low Tide Time	814
S3	30 Mar 2020	Comments	Kelp; Algae; 10 Persons; Water clear; No flow from storm drain
S4	01 Mar 2020	Arrive Time	1019
S4	01 Mar 2020	Weather	Partly Cloudy
S4	01 Mar 2020	Wind Speed (kts)	13.9
S4	01 Mar 2020	Wind Dir	W
S4	01 Mar 2020	Animal Life	5 Godwits
S4	01 Mar 2020	Floatables	Foam; Film; Soapy
S4	01 Mar 2020	Water Color	Green
S4	01 Mar 2020	Current Direction	N
S4	01 Mar 2020	Water Temp (C)	15.5
S4	01 Mar 2020	Wave Height Low (ft)	3
S4	01 Mar 2020	High Tide (ft)	2.4
S4	01 Mar 2020	High Tide Time	1348
S4	01 Mar 2020	Low Tide (ft)	1.4
S4	01 Mar 2020	Low Tide Time	755
S4	01 Mar 2020	Comments	Resample; Kelp; Seagrass; Water clear
S4	03 Mar 2020	Arrive Time	746
S4	03 Mar 2020	Weather	Sunny
S4	03 Mar 2020	Wind Speed (kts)	0
S4	03 Mar 2020	Wind Dir	
S4	03 Mar 2020	Animal Life	18 Godwits; 1 Grebe; 23 Seagulls
S4	03 Mar 2020	Floatables	Foam
S4	03 Mar 2020	Water Color	Green
S4	03 Mar 2020	Current Direction	N
S4	03 Mar 2020	Water Temp (C)	15.7
S4	03 Mar 2020	Wave Height Low (ft)	4
S4	03 Mar 2020	High Tide (ft)	4.2
S4	03 Mar 2020	High Tide Time	250
S4	03 Mar 2020	Low Tide (ft)	0.6
S4	03 Mar 2020	Low Tide Time	1108
S4	03 Mar 2020	Comments	Water clear
S4	05 Mar 2020	Arrive Time	741
S4	05 Mar 2020	Weather	Sunny
S4	05 Mar 2020	Wind Speed (kts)	2.9
S4	05 Mar 2020	Wind Dir	E
S4	05 Mar 2020	Animal Life	20 Godwits; 18 Seagulls
S4	05 Mar 2020	Floatables	Foam; Film
S4	05 Mar 2020	Water Color	Green
S4	05 Mar 2020	Current Direction	S
S4	05 Mar 2020	Water Temp (C)	17.1
S4	05 Mar 2020	Wave Height Low (ft)	3
S4	05 Mar 2020	High Tide (ft)	5
S4	05 Mar 2020	High Tide Time	515
S4	05 Mar 2020	Low Tide (ft)	-0.6
S4	05 Mar 2020	Low Tide Time	1244
S4	05 Mar 2020	Comments	Resample; Kelp; Seagrass; Water clear

Station	Date	Parameter	Value
S4	07 Mar 2020	Arrive Time	700
S4	07 Mar 2020	Weather	Cloudy
S4	07 Mar 2020	Wind Speed (kts)	6.2
S4	07 Mar 2020	Wind Dir	W
S4	07 Mar 2020	Animal Life	30 Plovers
S4	07 Mar 2020	Floatables	Foam
S4	07 Mar 2020	Water Color	Green
S4	07 Mar 2020	Current Direction	N
S4	07 Mar 2020	Water Temp (C)	15.6
S4	07 Mar 2020	Wave Height Low (ft)	2
S4	07 Mar 2020	High Tide (ft)	6
S4	07 Mar 2020	High Tide Time	656
S4	07 Mar 2020	Low Tide (ft)	1.4
S4	07 Mar 2020	Low Tide Time	56
S4	07 Mar 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water clear
S4	09 Mar 2020	Arrive Time	904
S4	09 Mar 2020	Weather	Sunny
S4	09 Mar 2020	Wind Speed (kts)	6.8
S4	09 Mar 2020	Wind Dir	NE
S4	09 Mar 2020	Animal Life	16 Plovers; 2 Terns
S4	09 Mar 2020	Floatables	Foam
S4	09 Mar 2020	Water Color	Green
S4	09 Mar 2020	Current Direction	N
S4	09 Mar 2020	Water Temp (C)	16.5
S4	09 Mar 2020	Wave Height Low (ft)	4
S4	09 Mar 2020	High Tide (ft)	6.2
S4	09 Mar 2020	High Tide Time	926
S4	09 Mar 2020	Low Tide (ft)	0.4
S4	09 Mar 2020	Low Tide Time	325
S4	09 Mar 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S4	10 Mar 2020	Arrive Time	920
S4	10 Mar 2020	Weather	Cloudy
S4	10 Mar 2020	Wind Speed (kts)	8.5
S4	10 Mar 2020	Wind Dir	S
S4	10 Mar 2020	Animal Life	4 Cormorants; 15 Seagulls
S4	10 Mar 2020	Floatables	None
S4	10 Mar 2020	Water Color	Green
S4	10 Mar 2020	Current Direction	N
S4	10 Mar 2020	Water Temp (C)	18.3
S4	10 Mar 2020	Wave Height Low (ft)	3
S4	10 Mar 2020	High Tide (ft)	5.9
S4	10 Mar 2020	High Tide Time	1011
S4	10 Mar 2020	Low Tide (ft)	0.1
S4	10 Mar 2020	Low Tide Time	411
S4	10 Mar 2020	Comments	Water clear
S4	12 Mar 2020	Arrive Time	751
S4	12 Mar 2020	Weather	Drizzle
S4	12 Mar 2020	Wind Speed (kts)	6.9
S4	12 Mar 2020	Wind Dir	W
S4	12 Mar 2020	Animal Life	8 Godwits; 6 Grebes; 1 Seagull; 4 Terns
S4	12 Mar 2020	Floatables	Foam
S4	12 Mar 2020	Water Color	Green
S4	12 Mar 2020	Current Direction	N
S4	12 Mar 2020	Water Temp (C)	17.4
S4	12 Mar 2020	Wave Height Low (ft)	3
S4	12 Mar 2020	High Tide (ft)	4.7
S4	12 Mar 2020	High Tide Time	1149

Station	Date	Parameter	Value
S4	12 Mar 2020	Low Tide (ft)	-0.1
S4	12 Mar 2020	Low Tide Time	551
S4	12 Mar 2020	Comments	Resample; Sewage-like odor; Water clear
S4	14 Mar 2020	Arrive Time	816
S4	14 Mar 2020	Weather	Drizzle
S4	14 Mar 2020	Wind Speed (kts)	3.4
S4	14 Mar 2020	Wind Dir	W
S4	14 Mar 2020	Animal Life	None
S4	14 Mar 2020	Floatables	None
S4	14 Mar 2020	Water Color	Green
S4	14 Mar 2020	Current Direction	W
S4	14 Mar 2020	Water Temp (C)	18
S4	14 Mar 2020	Wave Height Low (ft)	3
S4	14 Mar 2020	High Tide (ft)	3.1
S4	14 Mar 2020	High Tide Time	1405
S4	14 Mar 2020	Low Tide (ft)	0.2
S4	14 Mar 2020	Low Tide Time	801
S4	14 Mar 2020	Comments	Resample; Kelp; Seagrass; Water clear
S4	16 Mar 2020	Arrive Time	1048
S4	16 Mar 2020	Weather	Cloudy
S4	16 Mar 2020	Wind Speed (kts)	4.8
S4	16 Mar 2020	Wind Dir	S
S4	16 Mar 2020	Animal Life	5 Cormorants; 10 Godwits
S4	16 Mar 2020	Floatables	None
S4	16 Mar 2020	Water Color	Blue
S4	16 Mar 2020	Current Direction	N
S4	16 Mar 2020	Water Temp (C)	18.2
S4	16 Mar 2020	Wave Height Low (ft)	2
S4	16 Mar 2020	High Tide (ft)	4.6
S4	16 Mar 2020	High Tide Time	306
S4	16 Mar 2020	Low Tide (ft)	0.2
S4	16 Mar 2020	Low Tide Time	1110
S4	16 Mar 2020	Comments	Resample; Water clear
S4	17 Mar 2020	Arrive Time	928
S4	17 Mar 2020	Weather	Partly Cloudy
S4	17 Mar 2020	Wind Speed (kts)	6.6
S4	17 Mar 2020	Wind Dir	W
S4	17 Mar 2020	Animal Life	10 Godwits
S4	17 Mar 2020	Floatables	Foam; Film
S4	17 Mar 2020	Water Color	Green
S4	17 Mar 2020	Current Direction	S
S4	17 Mar 2020	Water Temp (C)	16.7
S4	17 Mar 2020	Wave Height Low (ft)	2
S4	17 Mar 2020	High Tide (ft)	4.5
S4	17 Mar 2020	High Tide Time	437
S4	17 Mar 2020	Low Tide (ft)	-0.1
S4	17 Mar 2020	Low Tide Time	1229
S4	17 Mar 2020	Comments	Debris; Sewage-like odor; Water clear
S4	19 Mar 2020	Arrive Time	1039
S4	19 Mar 2020	Weather	Partly Cloudy
S4	19 Mar 2020	Wind Speed (kts)	8.7
S4	19 Mar 2020	Wind Dir	S
S4	19 Mar 2020	Animal Life	2 Godwits; 4 Seagulls
S4	19 Mar 2020	Floatables	None
S4	19 Mar 2020	Water Color	Green
S4	19 Mar 2020	Current Direction	N
S4	19 Mar 2020	Water Temp (C)	16.9

Station	Date	Parameter	Value
S4	19 Mar 2020	Wave Height Low (ft)	3
S4	19 Mar 2020	High Tide (ft)	4.8
S4	19 Mar 2020	High Tide Time	655
S4	19 Mar 2020	Low Tide (ft)	-0.5
S4	19 Mar 2020	Low Tide Time	1403
S4	19 Mar 2020	Comments	Resample; Kelp; Water clear
S4	20 Mar 2020	Arrive Time	957
S4	20 Mar 2020	Weather	Partly Cloudy
S4	20 Mar 2020	Wind Speed (kts)	2.8
S4	20 Mar 2020	Wind Dir	E
S4	20 Mar 2020	Animal Life	None
S4	20 Mar 2020	Floatables	None
S4	20 Mar 2020	Water Color	Green
S4	20 Mar 2020	Current Direction	E
S4	20 Mar 2020	Water Temp (C)	15.4
S4	20 Mar 2020	Wave Height Low (ft)	3
S4	20 Mar 2020	High Tide (ft)	5
S4	20 Mar 2020	High Tide Time	740
S4	20 Mar 2020	Low Tide (ft)	-0.5
S4	20 Mar 2020	Low Tide Time	1435
S4	20 Mar 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S4	24 Mar 2020	Arrive Time	954
S4	24 Mar 2020	Weather	Sunny
S4	24 Mar 2020	Wind Speed (kts)	4.2
S4	24 Mar 2020	Wind Dir	NW
S4	24 Mar 2020	Animal Life	None
S4	24 Mar 2020	Floatables	Foam; Dead Animals; Film
S4	24 Mar 2020	Water Color	Green
S4	24 Mar 2020	Current Direction	S
S4	24 Mar 2020	Water Temp (C)	17.5
S4	24 Mar 2020	Wave Height Low (ft)	3
S4	24 Mar 2020	High Tide (ft)	4.8
S4	24 Mar 2020	High Tide Time	952
S4	24 Mar 2020	Low Tide (ft)	0.5
S4	24 Mar 2020	Low Tide Time	355
S4	24 Mar 2020	Comments	Kelp; Seagrass; Debris; Water clear
S4	30 Mar 2020	Arrive Time	821
S4	30 Mar 2020	Weather	Partly Cloudy
S4	30 Mar 2020	Wind Speed (kts)	3.1
S4	30 Mar 2020	Wind Dir	E
S4	30 Mar 2020	Animal Life	14 Godwits; 1 Seagull; 2 Dead seal
S4	30 Mar 2020	Floatables	Foam; Film
S4	30 Mar 2020	Water Color	Brown
S4	30 Mar 2020	Current Direction	S
S4	30 Mar 2020	Water Temp (C)	13.8
S4	30 Mar 2020	Wave Height Low (ft)	2
S4	30 Mar 2020	High Tide (ft)	2.5
S4	30 Mar 2020	High Tide Time	1459
S4	30 Mar 2020	Low Tide (ft)	0.8
S4	30 Mar 2020	Low Tide Time	814
S4	30 Mar 2020	Comments	Sewage-like odor; Water turbid
S5	03 Mar 2020	Arrive Time	835
S5	03 Mar 2020	Weather	Sunny
S5	03 Mar 2020	Wind Speed (kts)	3.6
S5	03 Mar 2020	Wind Dir	E
S5	03 Mar 2020	Animal Life	5 Godwits; 5 Seagulls
S5	03 Mar 2020	Floatables	Foam

Station	Date	Parameter	Value
S5	03 Mar 2020	Water Color	Green
S5	03 Mar 2020	Current Direction	S
S5	03 Mar 2020	Water Temp (C)	16.4
S5	03 Mar 2020	Wave Height Low (ft)	3
S5	03 Mar 2020	High Tide (ft)	4.2
S5	03 Mar 2020	High Tide Time	250
S5	03 Mar 2020	Low Tide (ft)	0.6
S5	03 Mar 2020	Low Tide Time	1108
S5	03 Mar 2020	Comments	Water turbid
S5	05 Mar 2020	Arrive Time	829
S5	05 Mar 2020	Weather	Sunny
S5	05 Mar 2020	Wind Speed (kts)	1.7
S5	05 Mar 2020	Wind Dir	E
S5	05 Mar 2020	Animal Life	2 Seagulls
S5	05 Mar 2020	Floatables	Foam; Film
S5	05 Mar 2020	Water Color	Green
S5	05 Mar 2020	Current Direction	S
S5	05 Mar 2020	Water Temp (C)	17.9
S5	05 Mar 2020	Wave Height Low (ft)	1
S5	05 Mar 2020	High Tide (ft)	5
S5	05 Mar 2020	High Tide Time	515
S5	05 Mar 2020	Low Tide (ft)	-0.6
S5	05 Mar 2020	Low Tide Time	1244
S5	05 Mar 2020	Comments	Resample; Debris; Sewage-like odor; Water clear
S5	07 Mar 2020	Arrive Time	756
S5	07 Mar 2020	Weather	Cloudy
S5	07 Mar 2020	Wind Speed (kts)	5.2
S5	07 Mar 2020	Wind Dir	W
S5	07 Mar 2020	Animal Life	None
S5	07 Mar 2020	Floatables	Foam; Dead Animals
S5	07 Mar 2020	Water Color	Green
S5	07 Mar 2020	Current Direction	N
S5	07 Mar 2020	Water Temp (C)	16.1
S5	07 Mar 2020	Wave Height Low (ft)	3
S5	07 Mar 2020	High Tide (ft)	6
S5	07 Mar 2020	High Tide Time	656
S5	07 Mar 2020	Low Tide (ft)	-1.3
S5	07 Mar 2020	Low Tide Time	1357
S5	07 Mar 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water clear
S5	09 Mar 2020	Arrive Time	821
S5	09 Mar 2020	Weather	Sunny
S5	09 Mar 2020	Wind Speed (kts)	5.2
S5	09 Mar 2020	Wind Dir	E
S5	09 Mar 2020	Animal Life	1 Pelican; 2 Seagulls
S5	09 Mar 2020	Floatables	None
S5	09 Mar 2020	Water Color	Green
S5	09 Mar 2020	Current Direction	N
S5	09 Mar 2020	Water Temp (C)	15.8
S5	09 Mar 2020	Wave Height Low (ft)	2
S5	09 Mar 2020	High Tide (ft)	6.2
S5	09 Mar 2020	High Tide Time	926
S5	09 Mar 2020	Low Tide (ft)	0.4
S5	09 Mar 2020	Low Tide Time	325
S5	09 Mar 2020	Comments	Resample; Kelp; Seagrass; 2 Persons; Water clear
S5	10 Mar 2020	Arrive Time	744
S5	10 Mar 2020	Weather	Drizzle

Station	Date	Parameter	Value
S5	10 Mar 2020	Wind Speed (kts)	12.4
S5	10 Mar 2020	Wind Dir	S
S5	10 Mar 2020	Animal Life	2 Seagulls; 20 Terns
S5	10 Mar 2020	Floatables	None
S5	10 Mar 2020	Water Color	Green
S5	10 Mar 2020	Current Direction	N
S5	10 Mar 2020	Water Temp (C)	17.8
S5	10 Mar 2020	Wave Height Low (ft)	2
S5	10 Mar 2020	High Tide (ft)	5.9
S5	10 Mar 2020	High Tide Time	1011
S5	10 Mar 2020	Low Tide (ft)	0.1
S5	10 Mar 2020	Low Tide Time	411
S5	10 Mar 2020	Comments	Water turbid
S5	12 Mar 2020	Arrive Time	834
S5	12 Mar 2020	Weather	Moderate Rain
S5	12 Mar 2020	Wind Speed (kts)	7.9
S5	12 Mar 2020	Wind Dir	NW
S5	12 Mar 2020	Animal Life	15 Pelicans; 4 Seagulls
S5	12 Mar 2020	Floatables	None
S5	12 Mar 2020	Water Color	Green
S5	12 Mar 2020	Current Direction	S
S5	12 Mar 2020	Water Temp (C)	17.2
S5	12 Mar 2020	Wave Height Low (ft)	2
S5	12 Mar 2020	High Tide (ft)	4.7
S5	12 Mar 2020	High Tide Time	1149
S5	12 Mar 2020	Low Tide (ft)	-0.1
S5	12 Mar 2020	Low Tide Time	551
S5	12 Mar 2020	Comments	Resample; Water clear
S5	16 Mar 2020	Arrive Time	924
S5	16 Mar 2020	Weather	Cloudy
S5	16 Mar 2020	Wind Speed (kts)	3.6
S5	16 Mar 2020	Wind Dir	S
S5	16 Mar 2020	Animal Life	1 Grebe; 7 Pelicans; 10 Seagulls; 15 Terns
S5	16 Mar 2020	Floatables	Foam
S5	16 Mar 2020	Water Color	Brown
S5	16 Mar 2020	Current Direction	N
S5	16 Mar 2020	Water Temp (C)	17.8
S5	16 Mar 2020	Wave Height Low (ft)	1
S5	16 Mar 2020	High Tide (ft)	4.6
S5	16 Mar 2020	High Tide Time	306
S5	16 Mar 2020	Low Tide (ft)	0.2
S5	16 Mar 2020	Low Tide Time	1110
S5	16 Mar 2020	Comments	Resample; Sewage-like odor; 1 Person; Water turbid
S5	17 Mar 2020	Arrive Time	816
S5	17 Mar 2020	Weather	Partly Cloudy
S5	17 Mar 2020	Wind Speed (kts)	4.6
S5	17 Mar 2020	Wind Dir	W
S5	17 Mar 2020	Animal Life	None
S5	17 Mar 2020	Floatables	Foam; Film
S5	17 Mar 2020	Water Color	Brown
S5	17 Mar 2020	Current Direction	S
S5	17 Mar 2020	Water Temp (C)	15.1
S5	17 Mar 2020	Wave Height Low (ft)	1
S5	17 Mar 2020	High Tide (ft)	4.5
S5	17 Mar 2020	High Tide Time	437
S5	17 Mar 2020	Low Tide (ft)	-0.1
S5	17 Mar 2020	Low Tide Time	1229
S5	17 Mar 2020	Comments	Debris; Sewage-like odor; Water turbid

Station	Date	Parameter	Value
S5	19 Mar 2020	Arrive Time	903
S5	19 Mar 2020	Weather	Partly Cloudy
S5	19 Mar 2020	Wind Speed (kts)	4.4
S5	19 Mar 2020	Wind Dir	E
S5	19 Mar 2020	Animal Life	2 Godwits; 12 Seagulls; 1 Seal; 15 Terns
S5	19 Mar 2020	Floatables	Foam
S5	19 Mar 2020	Water Color	Brown
S5	19 Mar 2020	Current Direction	S
S5	19 Mar 2020	Water Temp (C)	14.4
S5	19 Mar 2020	Wave Height Low (ft)	3
S5	19 Mar 2020	High Tide (ft)	4.8
S5	19 Mar 2020	High Tide Time	655
S5	19 Mar 2020	Low Tide (ft)	-0.5
S5	19 Mar 2020	Low Tide Time	1403
S5	19 Mar 2020	Comments	Resample; Sewage-like odor; Water turbid
S5	24 Mar 2020	Arrive Time	847
S5	24 Mar 2020	Weather	Sunny
S5	24 Mar 2020	Wind Speed (kts)	1.7
S5	24 Mar 2020	Wind Dir	E
S5	24 Mar 2020	Animal Life	1 Dog
S5	24 Mar 2020	Floatables	Foam; Film
S5	24 Mar 2020	Water Color	Green
S5	24 Mar 2020	Current Direction	S
S5	24 Mar 2020	Water Temp (C)	17.5
S5	24 Mar 2020	Wave Height Low (ft)	2
S5	24 Mar 2020	High Tide (ft)	4.8
S5	24 Mar 2020	High Tide Time	952
S5	24 Mar 2020	Low Tide (ft)	0.5
S5	24 Mar 2020	Low Tide Time	355
S5	24 Mar 2020	Comments	Kelp; Seagrass; 1 Person; Water clear
S5	26 Mar 2020	Arrive Time	842
S5	26 Mar 2020	Weather	Partly Cloudy
S5	26 Mar 2020	Wind Speed (kts)	12.5
S5	26 Mar 2020	Wind Dir	W
S5	26 Mar 2020	Animal Life	None
S5	26 Mar 2020	Floatables	None
S5	26 Mar 2020	Water Color	Green
S5	26 Mar 2020	Current Direction	N
S5	26 Mar 2020	Water Temp (C)	13.6
S5	26 Mar 2020	Wave Height Low (ft)	2
S5	26 Mar 2020	High Tide (ft)	4.2
S5	26 Mar 2020	High Tide Time	1055
S5	26 Mar 2020	Low Tide (ft)	0.4
S5	26 Mar 2020	Low Tide Time	458
S5	26 Mar 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S5	30 Mar 2020	Arrive Time	903
S5	30 Mar 2020	Weather	Sunny
S5	30 Mar 2020	Wind Speed (kts)	3.1
S5	30 Mar 2020	Wind Dir	E
S5	30 Mar 2020	Animal Life	1 Grebe; 100 Seagulls
S5	30 Mar 2020	Floatables	Film
S5	30 Mar 2020	Water Color	Brown
S5	30 Mar 2020	Current Direction	S
S5	30 Mar 2020	Water Temp (C)	17.7
S5	30 Mar 2020	Wave Height Low (ft)	2
S5	30 Mar 2020	High Tide (ft)	2.5
S5	30 Mar 2020	High Tide Time	1459

Station	Date	Parameter	Value
S5	30 Mar 2020	Low Tide (ft)	0.8
S5	30 Mar 2020	Low Tide Time	814
S5	30 Mar 2020	Comments	Sewage-like odor; 1 Tractor; Water turbid
S6	03 Mar 2020	Arrive Time	851
S6	03 Mar 2020	Weather	Sunny
S6	03 Mar 2020	Wind Speed (kts)	1.9
S6	03 Mar 2020	Wind Dir	W
S6	03 Mar 2020	Animal Life	2 Godwits
S6	03 Mar 2020	Floatables	Film
S6	03 Mar 2020	Water Color	Green
S6	03 Mar 2020	Current Direction	N
S6	03 Mar 2020	Water Temp (C)	16.3
S6	03 Mar 2020	Wave Height Low (ft)	4
S6	03 Mar 2020	High Tide (ft)	4.2
S6	03 Mar 2020	High Tide Time	250
S6	03 Mar 2020	Low Tide (ft)	0.6
S6	03 Mar 2020	Low Tide Time	1108
S6	03 Mar 2020	Comments	2 Persons; 1 Surfer; Water clear
S6	10 Mar 2020	Arrive Time	807
S6	10 Mar 2020	Weather	Drizzle
S6	10 Mar 2020	Wind Speed (kts)	3.4
S6	10 Mar 2020	Wind Dir	E
S6	10 Mar 2020	Animal Life	2 Godwits; 3 Seagulls; 2 Terns
S6	10 Mar 2020	Floatables	None
S6	10 Mar 2020	Water Color	Green
S6	10 Mar 2020	Current Direction	N
S6	10 Mar 2020	Water Temp (C)	17.6
S6	10 Mar 2020	Wave Height Low (ft)	3
S6	10 Mar 2020	High Tide (ft)	5.9
S6	10 Mar 2020	High Tide Time	1011
S6	10 Mar 2020	Low Tide (ft)	0.1
S6	10 Mar 2020	Low Tide Time	411
S6	10 Mar 2020	Comments	Sewage-like odor; Water clear
S6	12 Mar 2020	Arrive Time	845
S6	12 Mar 2020	Weather	Moderate Rain
S6	12 Mar 2020	Wind Speed (kts)	6.8
S6	12 Mar 2020	Wind Dir	W
S6	12 Mar 2020	Animal Life	1 Pelican; 1 Seagull
S6	12 Mar 2020	Floatables	None
S6	12 Mar 2020	Water Color	Green
S6	12 Mar 2020	Current Direction	S
S6	12 Mar 2020	Water Temp (C)	17.3
S6	12 Mar 2020	Wave Height Low (ft)	1
S6	12 Mar 2020	High Tide (ft)	4.7
S6	12 Mar 2020	High Tide Time	1149
S6	12 Mar 2020	Low Tide (ft)	-0.1
S6	12 Mar 2020	Low Tide Time	551
S6	12 Mar 2020	Comments	Resample; Sewage-like odor; Water clear
S6	14 Mar 2020	Arrive Time	924
S6	14 Mar 2020	Weather	Cloudy
S6	14 Mar 2020	Wind Speed (kts)	6
S6	14 Mar 2020	Wind Dir	W
S6	14 Mar 2020	Animal Life	None
S6	14 Mar 2020	Floatables	None
S6	14 Mar 2020	Water Color	Green
S6	14 Mar 2020	Current Direction	W
S6	14 Mar 2020	Water Temp (C)	17.2

Station	Date	Parameter	Value
S6	14 Mar 2020	Wave Height Low (ft)	3
S6	14 Mar 2020	High Tide (ft)	3.1
S6	14 Mar 2020	High Tide Time	1405
S6	14 Mar 2020	Low Tide (ft)	0.2
S6	14 Mar 2020	Low Tide Time	801
S6	14 Mar 2020	Comments	Resample; Water clear
S6	16 Mar 2020	Arrive Time	948
S6	16 Mar 2020	Weather	Cloudy
S6	16 Mar 2020	Wind Speed (kts)	2.3
S6	16 Mar 2020	Wind Dir	SW
S6	16 Mar 2020	Animal Life	2 Dogs; 1 Fish; 1 Seagull; 1 Dead dolphin
S6	16 Mar 2020	Floatables	None
S6	16 Mar 2020	Water Color	Green
S6	16 Mar 2020	Current Direction	N
S6	16 Mar 2020	Water Temp (C)	17.5
S6	16 Mar 2020	Wave Height Low (ft)	2
S6	16 Mar 2020	High Tide (ft)	4.6
S6	16 Mar 2020	High Tide Time	306
S6	16 Mar 2020	Low Tide (ft)	0.2
S6	16 Mar 2020	Low Tide Time	1110
S6	16 Mar 2020	Comments	Resample; 1 Jogger; 1 Person; 1 Surfer; Water clear
S6	17 Mar 2020	Arrive Time	849
S6	17 Mar 2020	Weather	Partly Cloudy
S6	17 Mar 2020	Wind Speed (kts)	5.8
S6	17 Mar 2020	Wind Dir	W
S6	17 Mar 2020	Animal Life	1 Cormorant; 2 Godwits
S6	17 Mar 2020	Floatables	Foam; Film
S6	17 Mar 2020	Water Color	Brown
S6	17 Mar 2020	Current Direction	S
S6	17 Mar 2020	Water Temp (C)	16.7
S6	17 Mar 2020	Wave Height Low (ft)	1
S6	17 Mar 2020	High Tide (ft)	4.5
S6	17 Mar 2020	High Tide Time	437
S6	17 Mar 2020	Low Tide (ft)	-0.1
S6	17 Mar 2020	Low Tide Time	1229
S6	17 Mar 2020	Comments	Debris; Sewage-like odor; Water clear
S6	19 Mar 2020	Arrive Time	934
S6	19 Mar 2020	Weather	Partly Cloudy
S6	19 Mar 2020	Wind Speed (kts)	4
S6	19 Mar 2020	Wind Dir	E
S6	19 Mar 2020	Animal Life	1 Godwit; 1 Pelican
S6	19 Mar 2020	Floatables	None
S6	19 Mar 2020	Water Color	Green
S6	19 Mar 2020	Current Direction	N
S6	19 Mar 2020	Water Temp (C)	17
S6	19 Mar 2020	Wave Height Low (ft)	3
S6	19 Mar 2020	High Tide (ft)	4.8
S6	19 Mar 2020	High Tide Time	655
S6	19 Mar 2020	Low Tide (ft)	-0.5
S6	19 Mar 2020	Low Tide Time	1403
S6	19 Mar 2020	Comments	Resample; Water clear
S6	24 Mar 2020	Arrive Time	902
S6	24 Mar 2020	Weather	Sunny
S6	24 Mar 2020	Wind Speed (kts)	4.2
S6	24 Mar 2020	Wind Dir	N
S6	24 Mar 2020	Animal Life	1 Godwit
S6	24 Mar 2020	Floatables	Foam

Station	Date	Parameter	Value
S6	24 Mar 2020	Water Color	Brown
S6	24 Mar 2020	Current Direction	S
S6	24 Mar 2020	Water Temp (C)	18.2
S6	24 Mar 2020	Wave Height Low (ft)	2
S6	24 Mar 2020	High Tide (ft)	4.8
S6	24 Mar 2020	High Tide Time	952
S6	24 Mar 2020	Low Tide (ft)	0.5
S6	24 Mar 2020	Low Tide Time	355
S6	24 Mar 2020	Comments	Kelp; Seagrass; 5 Persons; Water turbid
S6	30 Mar 2020	Arrive Time	929
S6	30 Mar 2020	Weather	Sunny
S6	30 Mar 2020	Wind Speed (kts)	5.8
S6	30 Mar 2020	Wind Dir	NE
S6	30 Mar 2020	Animal Life	1 Godwit; 1 Seagull
S6	30 Mar 2020	Floatables	Film
S6	30 Mar 2020	Water Color	Brown
S6	30 Mar 2020	Current Direction	N
S6	30 Mar 2020	Water Temp (C)	15.6
S6	30 Mar 2020	Wave Height Low (ft)	3
S6	30 Mar 2020	High Tide (ft)	2.5
S6	30 Mar 2020	High Tide Time	1459
S6	30 Mar 2020	Low Tide (ft)	0.8
S6	30 Mar 2020	Low Tide Time	814
S6	30 Mar 2020	Comments	Water turbid
S8	03 Mar 2020	Arrive Time	1009
S8	03 Mar 2020	Weather	Sunny
S8	03 Mar 2020	Wind Speed (kts)	3.3
S8	03 Mar 2020	Wind Dir	W
S8	03 Mar 2020	Animal Life	1 Pigeon; 7 Seagulls
S8	03 Mar 2020	Floatables	None
S8	03 Mar 2020	Water Color	Green
S8	03 Mar 2020	Current Direction	S
S8	03 Mar 2020	Water Temp (C)	17.4
S8	03 Mar 2020	Wave Height Low (ft)	3
S8	03 Mar 2020	High Tide (ft)	4.2
S8	03 Mar 2020	High Tide Time	250
S8	03 Mar 2020	Low Tide (ft)	0.6
S8	03 Mar 2020	Low Tide Time	1108
S8	03 Mar 2020	Comments	Kelp; 1 Person; Water clear
S8	10 Mar 2020	Arrive Time	1043
S8	10 Mar 2020	Weather	Moderate Rain
S8	10 Mar 2020	Wind Speed (kts)	5.2
S8	10 Mar 2020	Wind Dir	S
S8	10 Mar 2020	Animal Life	1 Seagull
S8	10 Mar 2020	Floatables	None
S8	10 Mar 2020	Water Color	Green
S8	10 Mar 2020	Current Direction	N
S8	10 Mar 2020	Water Temp (C)	18
S8	10 Mar 2020	Wave Height Low (ft)	2
S8	10 Mar 2020	High Tide (ft)	5.9
S8	10 Mar 2020	High Tide Time	1011
S8	10 Mar 2020	Low Tide (ft)	-1
S8	10 Mar 2020	Low Tide Time	1643
S8	10 Mar 2020	Comments	Kelp; 4 Persons; Water clear
S8	12 Mar 2020	Arrive Time	958
S8	12 Mar 2020	Weather	Moderate Rain
S8	12 Mar 2020	Wind Speed (kts)	5.2

Station	Date	Parameter	Value
S8	12 Mar 2020	Wind Dir	W
S8	12 Mar 2020	Animal Life	12 Cormorants; 2 Godwits
S8	12 Mar 2020	Floatables	None
S8	12 Mar 2020	Water Color	Green
S8	12 Mar 2020	Current Direction	S
S8	12 Mar 2020	Water Temp (C)	18.2
S8	12 Mar 2020	Wave Height Low (ft)	2
S8	12 Mar 2020	High Tide (ft)	4.7
S8	12 Mar 2020	High Tide Time	1149
S8	12 Mar 2020	Low Tide (ft)	-0.1
S8	12 Mar 2020	Low Tide Time	551
S8	12 Mar 2020	Comments	Resample; Kelp; Water clear
S8	14 Mar 2020	Arrive Time	957
S8	14 Mar 2020	Weather	Partly Cloudy
S8	14 Mar 2020	Wind Speed (kts)	5
S8	14 Mar 2020	Wind Dir	W
S8	14 Mar 2020	Animal Life	1 Seal
S8	14 Mar 2020	Floatables	None
S8	14 Mar 2020	Water Color	Green
S8	14 Mar 2020	Current Direction	W
S8	14 Mar 2020	Water Temp (C)	19.2
S8	14 Mar 2020	Wave Height Low (ft)	2
S8	14 Mar 2020	High Tide (ft)	3.1
S8	14 Mar 2020	High Tide Time	1405
S8	14 Mar 2020	Low Tide (ft)	0.2
S8	14 Mar 2020	Low Tide Time	801
S8	14 Mar 2020	Comments	Resample; Water clear
S8	16 Mar 2020	Arrive Time	815
S8	16 Mar 2020	Weather	Cloudy
S8	16 Mar 2020	Wind Speed (kts)	3.6
S8	16 Mar 2020	Wind Dir	SE
S8	16 Mar 2020	Animal Life	3 Cormorants; 1 Godwit; 2 Pelicans; 1 Seagull
S8	16 Mar 2020	Floatables	None
S8	16 Mar 2020	Water Color	Green
S8	16 Mar 2020	Current Direction	N
S8	16 Mar 2020	Water Temp (C)	16.8
S8	16 Mar 2020	Wave Height Low (ft)	1
S8	16 Mar 2020	High Tide (ft)	4.6
S8	16 Mar 2020	High Tide Time	306
S8	16 Mar 2020	Low Tide (ft)	0.2
S8	16 Mar 2020	Low Tide Time	1110
S8	16 Mar 2020	Comments	Resample; Water clear
S8	17 Mar 2020	Arrive Time	746
S8	17 Mar 2020	Weather	Partly Cloudy
S8	17 Mar 2020	Wind Speed (kts)	3.1
S8	17 Mar 2020	Wind Dir	W
S8	17 Mar 2020	Animal Life	2 Seagulls
S8	17 Mar 2020	Floatables	Foam
S8	17 Mar 2020	Water Color	Green
S8	17 Mar 2020	Current Direction	S
S8	17 Mar 2020	Water Temp (C)	16.4
S8	17 Mar 2020	Wave Height Low (ft)	1
S8	17 Mar 2020	High Tide (ft)	4.5
S8	17 Mar 2020	High Tide Time	437
S8	17 Mar 2020	Low Tide (ft)	-0.1
S8	17 Mar 2020	Low Tide Time	1229
S8	17 Mar 2020	Comments	3 Persons; Water clear

Station	Date	Parameter	Value
S8	19 Mar 2020	Arrive Time	801
S8	19 Mar 2020	Weather	Cloudy
S8	19 Mar 2020	Wind Speed (kts)	9.9
S8	19 Mar 2020	Wind Dir	NW
S8	19 Mar 2020	Animal Life	None
S8	19 Mar 2020	Floatables	Foam
S8	19 Mar 2020	Water Color	Green
S8	19 Mar 2020	Current Direction	S
S8	19 Mar 2020	Water Temp (C)	16
S8	19 Mar 2020	Wave Height Low (ft)	2
S8	19 Mar 2020	High Tide (ft)	4.8
S8	19 Mar 2020	High Tide Time	655
S8	19 Mar 2020	Low Tide (ft)	-0.5
S8	19 Mar 2020	Low Tide Time	1403
S8	19 Mar 2020	Comments	Resample; 2 Joggers; 1 Tractor; Water clear
S8	24 Mar 2020	Arrive Time	756
S8	24 Mar 2020	Weather	Partly Cloudy
S8	24 Mar 2020	Wind Speed (kts)	3.3
S8	24 Mar 2020	Wind Dir	E
S8	24 Mar 2020	Animal Life	75 Terns
S8	24 Mar 2020	Floatables	Foam
S8	24 Mar 2020	Water Color	Green
S8	24 Mar 2020	Current Direction	S
S8	24 Mar 2020	Water Temp (C)	16.9
S8	24 Mar 2020	Wave Height Low (ft)	1
S8	24 Mar 2020	High Tide (ft)	4.8
S8	24 Mar 2020	High Tide Time	952
S8	24 Mar 2020	Low Tide (ft)	0.5
S8	24 Mar 2020	Low Tide Time	355
S8	24 Mar 2020	Comments	Kelp; Seagrass; Water clear
S8	26 Mar 2020	Arrive Time	811
S8	26 Mar 2020	Weather	Partly Cloudy
S8	26 Mar 2020	Wind Speed (kts)	11.7
S8	26 Mar 2020	Wind Dir	W
S8	26 Mar 2020	Animal Life	None
S8	26 Mar 2020	Floatables	None
S8	26 Mar 2020	Water Color	Green
S8	26 Mar 2020	Current Direction	N
S8	26 Mar 2020	Water Temp (C)	14
S8	26 Mar 2020	Wave Height Low (ft)	2
S8	26 Mar 2020	High Tide (ft)	4.2
S8	26 Mar 2020	High Tide Time	1055
S8	26 Mar 2020	Low Tide (ft)	0.4
S8	26 Mar 2020	Low Tide Time	458
S8	26 Mar 2020	Comments	Resample; Kelp; Seagrass; Water clear
S8	30 Mar 2020	Arrive Time	1059
S8	30 Mar 2020	Weather	Sunny
S8	30 Mar 2020	Wind Speed (kts)	5.4
S8	30 Mar 2020	Wind Dir	W
S8	30 Mar 2020	Animal Life	1 Dog; 2 Godwits
S8	30 Mar 2020	Floatables	Foam
S8	30 Mar 2020	Water Color	Green
S8	30 Mar 2020	Current Direction	S
S8	30 Mar 2020	Water Temp (C)	16.1
S8	30 Mar 2020	Wave Height Low (ft)	1
S8	30 Mar 2020	High Tide (ft)	2.5
S8	30 Mar 2020	High Tide Time	1459
S8	30 Mar 2020	Low Tide (ft)	0.8

Station	Date	Parameter	Value
S8	30 Mar 2020	Low Tide Time	814
S8	30 Mar 2020	Comments	1 Person; Water clear
S9	03 Mar 2020	Arrive Time	1027
S9	03 Mar 2020	Weather	Sunny
S9	03 Mar 2020	Wind Speed (kts)	4.4
S9	03 Mar 2020	Wind Dir	N
S9	03 Mar 2020	Animal Life	2 Godwits; 5 Seagulls
S9	03 Mar 2020	Floatables	Film
S9	03 Mar 2020	Water Color	Green
S9	03 Mar 2020	Current Direction	S
S9	03 Mar 2020	Water Temp (C)	18.2
S9	03 Mar 2020	Wave Height Low (ft)	3
S9	03 Mar 2020	High Tide (ft)	4.2
S9	03 Mar 2020	High Tide Time	250
S9	03 Mar 2020	Low Tide (ft)	0.6
S9	03 Mar 2020	Low Tide Time	1108
S9	03 Mar 2020	Comments	11 Persons; 6 Surfers; Water clear
S9	10 Mar 2020	Arrive Time	1107
S9	10 Mar 2020	Weather	Drizzle
S9	10 Mar 2020	Wind Speed (kts)	6.9
S9	10 Mar 2020	Wind Dir	S
S9	10 Mar 2020	Animal Life	2 Birds; 1 Dog; 8 Seagulls; 1 Seal
S9	10 Mar 2020	Floatables	None
S9	10 Mar 2020	Water Color	Green
S9	10 Mar 2020	Current Direction	N
S9	10 Mar 2020	Water Temp (C)	18.3
S9	10 Mar 2020	Wave Height Low (ft)	2
S9	10 Mar 2020	High Tide (ft)	5.9
S9	10 Mar 2020	High Tide Time	1011
S9	10 Mar 2020	Low Tide (ft)	-1
S9	10 Mar 2020	Low Tide Time	1643
S9	10 Mar 2020	Comments	Kelp; 1 Person; Water clear
S9	12 Mar 2020	Arrive Time	1019
S9	12 Mar 2020	Weather	Moderate Rain
S9	12 Mar 2020	Wind Speed (kts)	7.1
S9	12 Mar 2020	Wind Dir	NW
S9	12 Mar 2020	Animal Life	3 Shorebirds; 3 Seagulls
S9	12 Mar 2020	Floatables	None
S9	12 Mar 2020	Water Color	Green
S9	12 Mar 2020	Current Direction	S
S9	12 Mar 2020	Water Temp (C)	18.1
S9	12 Mar 2020	Wave Height Low (ft)	2
S9	12 Mar 2020	High Tide (ft)	4.7
S9	12 Mar 2020	High Tide Time	1149
S9	12 Mar 2020	Low Tide (ft)	-0.1
S9	12 Mar 2020	Low Tide Time	551
S9	12 Mar 2020	Comments	Resample; Water clear
S9	17 Mar 2020	Arrive Time	726
S9	17 Mar 2020	Weather	Partly Cloudy
S9	17 Mar 2020	Wind Speed (kts)	2.1
S9	17 Mar 2020	Wind Dir	W
S9	17 Mar 2020	Animal Life	1 Godwit; 3 Seagulls
S9	17 Mar 2020	Floatables	Foam
S9	17 Mar 2020	Water Color	Green
S9	17 Mar 2020	Current Direction	S
S9	17 Mar 2020	Water Temp (C)	16.5
S9	17 Mar 2020	Wave Height Low (ft)	1

Station	Date	Parameter	Value
S9	17 Mar 2020	High Tide (ft)	4.5
S9	17 Mar 2020	High Tide Time	437
S9	17 Mar 2020	Low Tide (ft)	-0.1
S9	17 Mar 2020	Low Tide Time	1229
S9	17 Mar 2020	Comments	Water clear
S9	24 Mar 2020	Arrive Time	740
S9	24 Mar 2020	Weather	Partly Cloudy
S9	24 Mar 2020	Wind Speed (kts)	0.3
S9	24 Mar 2020	Wind Dir	SW
S9	24 Mar 2020	Animal Life	1 Godwit; 1 Grebe
S9	24 Mar 2020	Floatables	Foam
S9	24 Mar 2020	Water Color	Green
S9	24 Mar 2020	Current Direction	S
S9	24 Mar 2020	Water Temp (C)	17.1
S9	24 Mar 2020	Wave Height Low (ft)	1
S9	24 Mar 2020	High Tide (ft)	4.8
S9	24 Mar 2020	High Tide Time	952
S9	24 Mar 2020	Low Tide (ft)	0.5
S9	24 Mar 2020	Low Tide Time	355
S9	24 Mar 2020	Comments	Kelp; Seagrass; Water clear
S9	30 Mar 2020	Arrive Time	1123
S9	30 Mar 2020	Weather	Sunny
S9	30 Mar 2020	Wind Speed (kts)	5.6
S9	30 Mar 2020	Wind Dir	W
S9	30 Mar 2020	Animal Life	1 Godwit; 4 Seagulls
S9	30 Mar 2020	Floatables	None
S9	30 Mar 2020	Water Color	Green
S9	30 Mar 2020	Current Direction	S
S9	30 Mar 2020	Water Temp (C)	19.5
S9	30 Mar 2020	Wave Height Low (ft)	1
S9	30 Mar 2020	High Tide (ft)	2.5
S9	30 Mar 2020	High Tide Time	1459
S9	30 Mar 2020	Low Tide (ft)	0.8
S9	30 Mar 2020	Low Tide Time	814
S9	30 Mar 2020	Comments	11 Persons; 1 Surfer; Water clear
S10	01 Mar 2020	Arrive Time	1025
S10	01 Mar 2020	Weather	Partly Cloudy
S10	01 Mar 2020	Wind Speed (kts)	12.2
S10	01 Mar 2020	Wind Dir	W
S10	01 Mar 2020	Animal Life	None
S10	01 Mar 2020	Floatables	Foam; Film; Soapy
S10	01 Mar 2020	Water Color	Green
S10	01 Mar 2020	Current Direction	N
S10	01 Mar 2020	Water Temp (C)	14.8
S10	01 Mar 2020	Wave Height Low (ft)	2
S10	01 Mar 2020	High Tide (ft)	2.4
S10	01 Mar 2020	High Tide Time	1348
S10	01 Mar 2020	Low Tide (ft)	1.4
S10	01 Mar 2020	Low Tide Time	755
S10	01 Mar 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S10	03 Mar 2020	Arrive Time	755
S10	03 Mar 2020	Weather	Sunny
S10	03 Mar 2020	Wind Speed (kts)	6.9
S10	03 Mar 2020	Wind Dir	E
S10	03 Mar 2020	Animal Life	None
S10	03 Mar 2020	Floatables	Foam
S10	03 Mar 2020	Water Color	Green

Station	Date	Parameter	Value
S10	03 Mar 2020	Current Direction	N
S10	03 Mar 2020	Water Temp (C)	14.8
S10	03 Mar 2020	Wave Height Low (ft)	4
S10	03 Mar 2020	High Tide (ft)	4.2
S10	03 Mar 2020	High Tide Time	250
S10	03 Mar 2020	Low Tide (ft)	0.6
S10	03 Mar 2020	Low Tide Time	1108
S10	03 Mar 2020	Comments	Water clear
S10	05 Mar 2020	Arrive Time	749
S10	05 Mar 2020	Weather	Sunny
S10	05 Mar 2020	Wind Speed (kts)	3.6
S10	05 Mar 2020	Wind Dir	E
S10	05 Mar 2020	Animal Life	None
S10	05 Mar 2020	Floatables	Foam
S10	05 Mar 2020	Water Color	Green
S10	05 Mar 2020	Current Direction	S
S10	05 Mar 2020	Water Temp (C)	16.3
S10	05 Mar 2020	Wave Height Low (ft)	1
S10	05 Mar 2020	High Tide (ft)	5
S10	05 Mar 2020	High Tide Time	515
S10	05 Mar 2020	Low Tide (ft)	-0.6
S10	05 Mar 2020	Low Tide Time	1244
S10	05 Mar 2020	Comments	Resample; Kelp; Debris; Water clear
S10	07 Mar 2020	Arrive Time	713
S10	07 Mar 2020	Weather	Cloudy
S10	07 Mar 2020	Wind Speed (kts)	7.7
S10	07 Mar 2020	Wind Dir	W
S10	07 Mar 2020	Animal Life	None
S10	07 Mar 2020	Floatables	Foam; Dead Animals
S10	07 Mar 2020	Water Color	Green
S10	07 Mar 2020	Current Direction	N
S10	07 Mar 2020	Water Temp (C)	16.5
S10	07 Mar 2020	Wave Height Low (ft)	3
S10	07 Mar 2020	High Tide (ft)	6
S10	07 Mar 2020	High Tide Time	656
S10	07 Mar 2020	Low Tide (ft)	1.4
S10	07 Mar 2020	Low Tide Time	56
S10	07 Mar 2020	Comments	Resample; Kelp; Debris; Water clear
S10	09 Mar 2020	Arrive Time	915
S10	09 Mar 2020	Weather	Sunny
S10	09 Mar 2020	Wind Speed (kts)	5.4
S10	09 Mar 2020	Wind Dir	E
S10	09 Mar 2020	Animal Life	2 Godwits
S10	09 Mar 2020	Floatables	Foam
S10	09 Mar 2020	Water Color	Green
S10	09 Mar 2020	Current Direction	NE
S10	09 Mar 2020	Water Temp (C)	15.9
S10	09 Mar 2020	Wave Height Low (ft)	3
S10	09 Mar 2020	High Tide (ft)	6.2
S10	09 Mar 2020	High Tide Time	926
S10	09 Mar 2020	Low Tide (ft)	0.4
S10	09 Mar 2020	Low Tide Time	325
S10	09 Mar 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S10	10 Mar 2020	Arrive Time	933
S10	10 Mar 2020	Weather	Cloudy
S10	10 Mar 2020	Wind Speed (kts)	5
S10	10 Mar 2020	Wind Dir	S

Station	Date	Parameter	Value
S10	10 Mar 2020	Animal Life	1 Cormorant
S10	10 Mar 2020	Floatables	None
S10	10 Mar 2020	Water Color	Green
S10	10 Mar 2020	Current Direction	N
S10	10 Mar 2020	Water Temp (C)	18.5
S10	10 Mar 2020	Wave Height Low (ft)	3
S10	10 Mar 2020	High Tide (ft)	5.9
S10	10 Mar 2020	High Tide Time	1011
S10	10 Mar 2020	Low Tide (ft)	0.1
S10	10 Mar 2020	Low Tide Time	411
S10	10 Mar 2020	Comments	Water clear
S10	12 Mar 2020	Arrive Time	745
S10	12 Mar 2020	Weather	Drizzle
S10	12 Mar 2020	Wind Speed (kts)	8.5
S10	12 Mar 2020	Wind Dir	W
S10	12 Mar 2020	Animal Life	2 Seagulls; 1 Dead dolphin on beach
S10	12 Mar 2020	Floatables	Foam
S10	12 Mar 2020	Water Color	Green
S10	12 Mar 2020	Current Direction	N
S10	12 Mar 2020	Water Temp (C)	17.5
S10	12 Mar 2020	Wave Height Low (ft)	2
S10	12 Mar 2020	High Tide (ft)	4.7
S10	12 Mar 2020	High Tide Time	1149
S10	12 Mar 2020	Low Tide (ft)	-0.1
S10	12 Mar 2020	Low Tide Time	551
S10	12 Mar 2020	Comments	Resample; Debris; Sewage-like odor; Water clear
S10	14 Mar 2020	Arrive Time	823
S10	14 Mar 2020	Weather	Drizzle
S10	14 Mar 2020	Wind Speed (kts)	3.5
S10	14 Mar 2020	Wind Dir	W
S10	14 Mar 2020	Animal Life	None
S10	14 Mar 2020	Floatables	None
S10	14 Mar 2020	Water Color	Green
S10	14 Mar 2020	Current Direction	W
S10	14 Mar 2020	Water Temp (C)	17.6
S10	14 Mar 2020	Wave Height Low (ft)	3
S10	14 Mar 2020	High Tide (ft)	3.1
S10	14 Mar 2020	High Tide Time	1405
S10	14 Mar 2020	Low Tide (ft)	0.2
S10	14 Mar 2020	Low Tide Time	801
S10	14 Mar 2020	Comments	Resample; Kelp; Seagrass; Water clear
S10	16 Mar 2020	Arrive Time	1035
S10	16 Mar 2020	Weather	Cloudy
S10	16 Mar 2020	Wind Speed (kts)	4.4
S10	16 Mar 2020	Wind Dir	S
S10	16 Mar 2020	Animal Life	1 Cormorant; 6 Godwits
S10	16 Mar 2020	Floatables	None
S10	16 Mar 2020	Water Color	Blue
S10	16 Mar 2020	Current Direction	N
S10	16 Mar 2020	Water Temp (C)	18
S10	16 Mar 2020	Wave Height Low (ft)	1
S10	16 Mar 2020	High Tide (ft)	4.6
S10	16 Mar 2020	High Tide Time	306
S10	16 Mar 2020	Low Tide (ft)	0.2
S10	16 Mar 2020	Low Tide Time	1110
S10	16 Mar 2020	Comments	Resample; Water clear
S10	17 Mar 2020	Arrive Time	935

Station	Date	Parameter	Value
S10	17 Mar 2020	Weather	Partly Cloudy
S10	17 Mar 2020	Wind Speed (kts)	4
S10	17 Mar 2020	Wind Dir	W
S10	17 Mar 2020	Animal Life	1 Grebe; 1 Seagull
S10	17 Mar 2020	Floatables	Foam; Film
S10	17 Mar 2020	Water Color	Green
S10	17 Mar 2020	Current Direction	S
S10	17 Mar 2020	Water Temp (C)	17
S10	17 Mar 2020	Wave Height Low (ft)	1
S10	17 Mar 2020	High Tide (ft)	4.5
S10	17 Mar 2020	High Tide Time	437
S10	17 Mar 2020	Low Tide (ft)	-0.1
S10	17 Mar 2020	Low Tide Time	1229
S10	17 Mar 2020	Comments	Debris; Sewage-like odor; Water clear
S10	19 Mar 2020	Arrive Time	1024
S10	19 Mar 2020	Weather	Partly Cloudy
S10	19 Mar 2020	Wind Speed (kts)	9.1
S10	19 Mar 2020	Wind Dir	S
S10	19 Mar 2020	Animal Life	10 Godwits
S10	19 Mar 2020	Floatables	None
S10	19 Mar 2020	Water Color	Green
S10	19 Mar 2020	Current Direction	N
S10	19 Mar 2020	Water Temp (C)	16.8
S10	19 Mar 2020	Wave Height Low (ft)	3
S10	19 Mar 2020	High Tide (ft)	4.8
S10	19 Mar 2020	High Tide Time	655
S10	19 Mar 2020	Low Tide (ft)	-0.5
S10	19 Mar 2020	Low Tide Time	1403
S10	19 Mar 2020	Comments	Resample; 1 Tractor; Water turbid
S10	20 Mar 2020	Arrive Time	951
S10	20 Mar 2020	Weather	Partly Cloudy
S10	20 Mar 2020	Wind Speed (kts)	2.4
S10	20 Mar 2020	Wind Dir	E
S10	20 Mar 2020	Animal Life	2 Dolphins
S10	20 Mar 2020	Floatables	None
S10	20 Mar 2020	Water Color	Green
S10	20 Mar 2020	Current Direction	N
S10	20 Mar 2020	Water Temp (C)	15.4
S10	20 Mar 2020	Wave Height Low (ft)	3
S10	20 Mar 2020	High Tide (ft)	5
S10	20 Mar 2020	High Tide Time	740
S10	20 Mar 2020	Low Tide (ft)	-0.5
S10	20 Mar 2020	Low Tide Time	1435
S10	20 Mar 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S10	24 Mar 2020	Arrive Time	947
S10	24 Mar 2020	Weather	Sunny
S10	24 Mar 2020	Wind Speed (kts)	2.7
S10	24 Mar 2020	Wind Dir	N
S10	24 Mar 2020	Animal Life	None
S10	24 Mar 2020	Floatables	Foam; Film
S10	24 Mar 2020	Water Color	Green
S10	24 Mar 2020	Current Direction	S
S10	24 Mar 2020	Water Temp (C)	17.7
S10	24 Mar 2020	Wave Height Low (ft)	4
S10	24 Mar 2020	High Tide (ft)	4.8
S10	24 Mar 2020	High Tide Time	952
S10	24 Mar 2020	Low Tide (ft)	0.5
S10	24 Mar 2020	Low Tide Time	355

Station	Date	Parameter	Value
S10	24 Mar 2020	Comments	Kelp; Seagrass; Debris; Sewage-like odor; Water clear
S10	30 Mar 2020	Arrive Time	810
S10	30 Mar 2020	Weather	Partly Cloudy
S10	30 Mar 2020	Wind Speed (kts)	1.7
S10	30 Mar 2020	Wind Dir	E
S10	30 Mar 2020	Animal Life	1 Godwit
S10	30 Mar 2020	Floatables	Foam; Film
S10	30 Mar 2020	Water Color	Brown
S10	30 Mar 2020	Current Direction	S
S10	30 Mar 2020	Water Temp (C)	14.8
S10	30 Mar 2020	Wave Height Low (ft)	2
S10	30 Mar 2020	High Tide (ft)	2.5
S10	30 Mar 2020	High Tide Time	1459
S10	30 Mar 2020	Low Tide (ft)	0.8
S10	30 Mar 2020	Low Tide Time	814
S10	30 Mar 2020	Comments	2 Tractor; Water turbid
S11	03 Mar 2020	Arrive Time	844
S11	03 Mar 2020	Weather	Sunny
S11	03 Mar 2020	Wind Speed (kts)	5
S11	03 Mar 2020	Wind Dir	N
S11	03 Mar 2020	Animal Life	1 Seagull
S11	03 Mar 2020	Floatables	None
S11	03 Mar 2020	Water Color	Green
S11	03 Mar 2020	Current Direction	N
S11	03 Mar 2020	Water Temp (C)	17.1
S11	03 Mar 2020	Wave Height Low (ft)	3
S11	03 Mar 2020	High Tide (ft)	4.2
S11	03 Mar 2020	High Tide Time	250
S11	03 Mar 2020	Low Tide (ft)	0.6
S11	03 Mar 2020	Low Tide Time	1108
S11	03 Mar 2020	Comments	Water clear
S11	10 Mar 2020	Arrive Time	756
S11	10 Mar 2020	Weather	Cloudy
S11	10 Mar 2020	Wind Speed (kts)	7.3
S11	10 Mar 2020	Wind Dir	S
S11	10 Mar 2020	Animal Life	1 Seagull; 4 Terns
S11	10 Mar 2020	Floatables	None
S11	10 Mar 2020	Water Color	Green
S11	10 Mar 2020	Current Direction	N
S11	10 Mar 2020	Water Temp (C)	17.6
S11	10 Mar 2020	Wave Height Low (ft)	2
S11	10 Mar 2020	High Tide (ft)	5.9
S11	10 Mar 2020	High Tide Time	1011
S11	10 Mar 2020	Low Tide (ft)	0.1
S11	10 Mar 2020	Low Tide Time	411
S11	10 Mar 2020	Comments	Sewage-like odor; Water clear
S11	12 Mar 2020	Arrive Time	840
S11	12 Mar 2020	Weather	Moderate Rain
S11	12 Mar 2020	Wind Speed (kts)	7.5
S11	12 Mar 2020	Wind Dir	W
S11	12 Mar 2020	Animal Life	1 Godwit; 1 Seagull
S11	12 Mar 2020	Floatables	None
S11	12 Mar 2020	Water Color	Green
S11	12 Mar 2020	Current Direction	S
S11	12 Mar 2020	Water Temp (C)	17.5
S11	12 Mar 2020	Wave Height Low (ft)	1
S11	12 Mar 2020	High Tide (ft)	4.7

Station	Date	Parameter	Value
S11	12 Mar 2020	High Tide Time	1149
S11	12 Mar 2020	Low Tide (ft)	-0.1
S11	12 Mar 2020	Low Tide Time	551
S11	12 Mar 2020	Comments	Resample; Water clear
S11	14 Mar 2020	Arrive Time	900
S11	14 Mar 2020	Weather	Cloudy
S11	14 Mar 2020	Wind Speed (kts)	3.8
S11	14 Mar 2020	Wind Dir	W
S11	14 Mar 2020	Animal Life	None
S11	14 Mar 2020	Floatables	None
S11	14 Mar 2020	Water Color	Brown
S11	14 Mar 2020	Current Direction	W
S11	14 Mar 2020	Water Temp (C)	17.2
S11	14 Mar 2020	Wave Height Low (ft)	3
S11	14 Mar 2020	High Tide (ft)	3.1
S11	14 Mar 2020	High Tide Time	1405
S11	14 Mar 2020	Low Tide (ft)	0.2
S11	14 Mar 2020	Low Tide Time	801
S11	14 Mar 2020	Comments	Resample; Sewage-like odor; Water clear
S11	16 Mar 2020	Arrive Time	936
S11	16 Mar 2020	Weather	Cloudy
S11	16 Mar 2020	Wind Speed (kts)	1.7
S11	16 Mar 2020	Wind Dir	W
S11	16 Mar 2020	Animal Life	4 Godwits; 6 Grebes; 1 Seagull
S11	16 Mar 2020	Floatables	None
S11	16 Mar 2020	Water Color	Green
S11	16 Mar 2020	Current Direction	N
S11	16 Mar 2020	Water Temp (C)	18
S11	16 Mar 2020	Wave Height Low (ft)	2
S11	16 Mar 2020	High Tide (ft)	4.6
S11	16 Mar 2020	High Tide Time	306
S11	16 Mar 2020	Low Tide (ft)	0.2
S11	16 Mar 2020	Low Tide Time	1110
S11	16 Mar 2020	Comments	Resample; Sewage-like odor; 1 Person; Water turbid
S11	17 Mar 2020	Arrive Time	824
S11	17 Mar 2020	Weather	Partly Cloudy
S11	17 Mar 2020	Wind Speed (kts)	3.4
S11	17 Mar 2020	Wind Dir	W
S11	17 Mar 2020	Animal Life	8 Godwits
S11	17 Mar 2020	Floatables	Foam; Film
S11	17 Mar 2020	Water Color	Brown
S11	17 Mar 2020	Current Direction	S
S11	17 Mar 2020	Water Temp (C)	16.4
S11	17 Mar 2020	Wave Height Low (ft)	1
S11	17 Mar 2020	High Tide (ft)	4.5
S11	17 Mar 2020	High Tide Time	437
S11	17 Mar 2020	Low Tide (ft)	-0.1
S11	17 Mar 2020	Low Tide Time	1229
S11	17 Mar 2020	Comments	Debris; Sewage-like odor; Water turbid
S11	19 Mar 2020	Arrive Time	921
S11	19 Mar 2020	Weather	Partly Cloudy
S11	19 Mar 2020	Wind Speed (kts)	5.6
S11	19 Mar 2020	Wind Dir	E
S11	19 Mar 2020	Animal Life	3 Godwits; 2 Grebes; 1 Seagull
S11	19 Mar 2020	Floatables	Foam
S11	19 Mar 2020	Water Color	Green
S11	19 Mar 2020	Current Direction	N

Station	Date	Parameter	Value
S11	19 Mar 2020	Water Temp (C)	16.6
S11	19 Mar 2020	Wave Height Low (ft)	3
S11	19 Mar 2020	High Tide (ft)	4.8
S11	19 Mar 2020	High Tide Time	655
S11	19 Mar 2020	Low Tide (ft)	-0.5
S11	19 Mar 2020	Low Tide Time	1403
S11	19 Mar 2020	Comments	Resample; Sewage-like odor; 1 Jogger; Water clear
S11	24 Mar 2020	Arrive Time	857
S11	24 Mar 2020	Weather	Sunny
S11	24 Mar 2020	Wind Speed (kts)	3.4
S11	24 Mar 2020	Wind Dir	NW
S11	24 Mar 2020	Animal Life	2 Godwits; 1 Pelican
S11	24 Mar 2020	Floatables	Foam; Dead Animals
S11	24 Mar 2020	Water Color	Green
S11	24 Mar 2020	Current Direction	S
S11	24 Mar 2020	Water Temp (C)	17.8
S11	24 Mar 2020	Wave Height Low (ft)	3
S11	24 Mar 2020	High Tide (ft)	4.8
S11	24 Mar 2020	High Tide Time	952
S11	24 Mar 2020	Low Tide (ft)	0.5
S11	24 Mar 2020	Low Tide Time	355
S11	24 Mar 2020	Comments	Kelp; Seagrass; 1 Person; Water clear
S11	26 Mar 2020	Arrive Time	900
S11	26 Mar 2020	Weather	Partly Cloudy
S11	26 Mar 2020	Wind Speed (kts)	11.5
S11	26 Mar 2020	Wind Dir	W
S11	26 Mar 2020	Animal Life	None
S11	26 Mar 2020	Floatables	None
S11	26 Mar 2020	Water Color	Green
S11	26 Mar 2020	Current Direction	N
S11	26 Mar 2020	Water Temp (C)	15.7
S11	26 Mar 2020	Wave Height Low (ft)	3
S11	26 Mar 2020	High Tide (ft)	4.2
S11	26 Mar 2020	High Tide Time	1055
S11	26 Mar 2020	Low Tide (ft)	0.4
S11	26 Mar 2020	Low Tide Time	458
S11	26 Mar 2020	Comments	Resample; Kelp; Seagrass; Water clear
S11	30 Mar 2020	Arrive Time	914
S11	30 Mar 2020	Weather	Sunny
S11	30 Mar 2020	Wind Speed (kts)	6.2
S11	30 Mar 2020	Wind Dir	NE
S11	30 Mar 2020	Animal Life	3 Terns; 2 Dead seal
S11	30 Mar 2020	Floatables	Film
S11	30 Mar 2020	Water Color	Brown
S11	30 Mar 2020	Current Direction	S
S11	30 Mar 2020	Water Temp (C)	15.6
S11	30 Mar 2020	Wave Height Low (ft)	2
S11	30 Mar 2020	High Tide (ft)	2.5
S11	30 Mar 2020	High Tide Time	1459
S11	30 Mar 2020	Low Tide (ft)	0.8
S11	30 Mar 2020	Low Tide Time	814
S11	30 Mar 2020	Comments	Water turbid
S12	03 Mar 2020	Arrive Time	902
S12	03 Mar 2020	Weather	Sunny
S12	03 Mar 2020	Wind Speed (kts)	6.4
S12	03 Mar 2020	Wind Dir	N
S12	03 Mar 2020	Animal Life	2 Dogs; 1 Godwit; 3 Seagulls

Station	Date	Parameter	Value
S12	03 Mar 2020	Floatables	None
S12	03 Mar 2020	Water Color	Green
S12	03 Mar 2020	Current Direction	N
S12	03 Mar 2020	Water Temp (C)	18.5
S12	03 Mar 2020	Wave Height Low (ft)	4
S12	03 Mar 2020	High Tide (ft)	4.2
S12	03 Mar 2020	High Tide Time	250
S12	03 Mar 2020	Low Tide (ft)	0.6
S12	03 Mar 2020	Low Tide Time	1108
S12	03 Mar 2020	Comments	8 Persons; 2 Fishermen; Water clear
S12	10 Mar 2020	Arrive Time	832
S12	10 Mar 2020	Weather	Cloudy
S12	10 Mar 2020	Wind Speed (kts)	2.3
S12	10 Mar 2020	Wind Dir	S
S12	10 Mar 2020	Animal Life	100 Cormorants; 5 Seagulls
S12	10 Mar 2020	Floatables	None
S12	10 Mar 2020	Water Color	Green
S12	10 Mar 2020	Current Direction	N
S12	10 Mar 2020	Water Temp (C)	17.7
S12	10 Mar 2020	Wave Height Low (ft)	3
S12	10 Mar 2020	High Tide (ft)	5.9
S12	10 Mar 2020	High Tide Time	1011
S12	10 Mar 2020	Low Tide (ft)	0.1
S12	10 Mar 2020	Low Tide Time	411
S12	10 Mar 2020	Comments	Water clear
S12	12 Mar 2020	Arrive Time	856
S12	12 Mar 2020	Weather	Moderate Rain
S12	12 Mar 2020	Wind Speed (kts)	7.7
S12	12 Mar 2020	Wind Dir	W
S12	12 Mar 2020	Animal Life	25 Cormorants; 4 Godwits; 2 Seagulls
S12	12 Mar 2020	Floatables	None
S12	12 Mar 2020	Water Color	Green
S12	12 Mar 2020	Current Direction	
S12	12 Mar 2020	Water Temp (C)	17.7
S12	12 Mar 2020	Wave Height Low (ft)	2
S12	12 Mar 2020	High Tide (ft)	4.7
S12	12 Mar 2020	High Tide Time	1149
S12	12 Mar 2020	Low Tide (ft)	-0.1
S12	12 Mar 2020	Low Tide Time	551
S12	12 Mar 2020	Comments	Resample; 1 Person; Water clear
S12	14 Mar 2020	Arrive Time	934
S12	14 Mar 2020	Weather	Cloudy
S12	14 Mar 2020	Wind Speed (kts)	4
S12	14 Mar 2020	Wind Dir	W
S12	14 Mar 2020	Animal Life	2 Dogs
S12	14 Mar 2020	Floatables	None
S12	14 Mar 2020	Water Color	Green
S12	14 Mar 2020	Current Direction	W
S12	14 Mar 2020	Water Temp (C)	17.2
S12	14 Mar 2020	Wave Height Low (ft)	2
S12	14 Mar 2020	High Tide (ft)	3.1
S12	14 Mar 2020	High Tide Time	1405
S12	14 Mar 2020	Low Tide (ft)	0.2
S12	14 Mar 2020	Low Tide Time	801
S12	14 Mar 2020	Comments	Resample; 1 Jogger; 2 Persons; Water clear
S12	16 Mar 2020	Arrive Time	858
S12	16 Mar 2020	Weather	Cloudy

Station	Date	Parameter	Value
S12	16 Mar 2020	Wind Speed (kts)	0
S12	16 Mar 2020	Wind Dir	
S12	16 Mar 2020	Animal Life	3 Godwits; 1 Seagull
S12	16 Mar 2020	Floatables	None
S12	16 Mar 2020	Water Color	Green
S12	16 Mar 2020	Current Direction	S
S12	16 Mar 2020	Water Temp (C)	17.3
S12	16 Mar 2020	Wave Height Low (ft)	1
S12	16 Mar 2020	High Tide (ft)	4.6
S12	16 Mar 2020	High Tide Time	306
S12	16 Mar 2020	Low Tide (ft)	0.2
S12	16 Mar 2020	Low Tide Time	1110
S12	16 Mar 2020	Comments	Resample; 2 Persons; Water clear
S12	17 Mar 2020	Arrive Time	801
S12	17 Mar 2020	Weather	Partly Cloudy
S12	17 Mar 2020	Wind Speed (kts)	5.4
S12	17 Mar 2020	Wind Dir	W
S12	17 Mar 2020	Animal Life	1 Cormorant; 15 Godwits
S12	17 Mar 2020	Floatables	Foam
S12	17 Mar 2020	Water Color	Green
S12	17 Mar 2020	Current Direction	S
S12	17 Mar 2020	Water Temp (C)	16.8
S12	17 Mar 2020	Wave Height Low (ft)	1
S12	17 Mar 2020	High Tide (ft)	4.5
S12	17 Mar 2020	High Tide Time	437
S12	17 Mar 2020	Low Tide (ft)	-0.1
S12	17 Mar 2020	Low Tide Time	1229
S12	17 Mar 2020	Comments	4 Fishermen; Water clear
S12	19 Mar 2020	Arrive Time	836
S12	19 Mar 2020	Weather	Partly Cloudy
S12	19 Mar 2020	Wind Speed (kts)	4.2
S12	19 Mar 2020	Wind Dir	W
S12	19 Mar 2020	Animal Life	1 Shorebird; 3 Godwits; 1 Seagull
S12	19 Mar 2020	Floatables	None
S12	19 Mar 2020	Water Color	Green
S12	19 Mar 2020	Current Direction	S
S12	19 Mar 2020	Water Temp (C)	16.4
S12	19 Mar 2020	Wave Height Low (ft)	3
S12	19 Mar 2020	High Tide (ft)	4.8
S12	19 Mar 2020	High Tide Time	655
S12	19 Mar 2020	Low Tide (ft)	-0.5
S12	19 Mar 2020	Low Tide Time	1403
S12	19 Mar 2020	Comments	Resample; 1 Person; 1 Tractor; Water clear
S12	24 Mar 2020	Arrive Time	809
S12	24 Mar 2020	Weather	Partly Cloudy
S12	24 Mar 2020	Wind Speed (kts)	0
S12	24 Mar 2020	Wind Dir	
S12	24 Mar 2020	Animal Life	2 Dogs; 2 Godwits; 1 Grebe
S12	24 Mar 2020	Floatables	Foam
S12	24 Mar 2020	Water Color	Green
S12	24 Mar 2020	Current Direction	S
S12	24 Mar 2020	Water Temp (C)	16.9
S12	24 Mar 2020	Wave Height Low (ft)	2
S12	24 Mar 2020	High Tide (ft)	4.8
S12	24 Mar 2020	High Tide Time	952
S12	24 Mar 2020	Low Tide (ft)	0.5
S12	24 Mar 2020	Low Tide Time	355
S12	24 Mar 2020	Comments	1 Jogger; 1 Person; 2 Fishermen; Water clear

Station	Date	Parameter	Value
S12	30 Mar 2020	Arrive Time	950
S12	30 Mar 2020	Weather	Sunny
S12	30 Mar 2020	Wind Speed (kts)	5.4
S12	30 Mar 2020	Wind Dir	N
S12	30 Mar 2020	Animal Life	200 Godwits; 4 Terns
S12	30 Mar 2020	Floatables	None
S12	30 Mar 2020	Water Color	Green
S12	30 Mar 2020	Current Direction	N
S12	30 Mar 2020	Water Temp (C)	18.7
S12	30 Mar 2020	Wave Height Low (ft)	1
S12	30 Mar 2020	High Tide (ft)	2.5
S12	30 Mar 2020	High Tide Time	1459
S12	30 Mar 2020	Low Tide (ft)	0.8
S12	30 Mar 2020	Low Tide Time	814
S12	30 Mar 2020	Comments	1 Tractor; Water clear

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 Mar 2020	1314	34	11	15	11	2	373
02 Mar 2020	1314	34	11	15	11	2	373
03 Mar 2020	1314	34	11	15	11	2	373
04 Mar 2020	1314	34	11	15	11	2	373
05 Mar 2020	2013	22	8	10	8	2	192
06 Mar 2020	1675	29	8	15	11	2	144
07 Mar 2020	1675	29	8	15	11	2	144
08 Mar 2020	1675	29	8	15	11	2	144
09 Mar 2020	806	51	19	10	8	4	158
10 Mar 2020	806	51	19	10	8	4	158
11 Mar 2020	1115	35	13	3	2	4	89
12 Mar 2020	1115	35	13	3	2	4	89
13 Mar 2020	1115	35	13	3	2	4	89
14 Mar 2020	1115	35	13	3	2	4	89
15 Mar 2020	1115	35	13	3	2	4	89
16 Mar 2020	512	101	47	6	7	12	207
17 Mar 2020	512	101	47	6	7	12	207
18 Mar 2020	512	101	47	6	7	12	207
19 Mar 2020	255	73	70	6	10	19	113
20 Mar 2020	255	73	70	6	10	19	113
21 Mar 2020	255	73	70	6	10	19	113
22 Mar 2020	255	73	70	6	10	19	113
23 Mar 2020	255	73	70	6	10	19	113
24 Mar 2020	152	146	153	17	37	58	234
25 Mar 2020	152	146	153	17	37	58	234
26 Mar 2020	120	426	453	29	76	134	533
27 Mar 2020	120	426	453	29	76	134	533
28 Mar 2020	120	426	453	29	76	134	533
29 Mar 2020	120	426	453	29	76	134	533
30 Mar 2020	120	426	453	29	76	134	533
31 Mar 2020	120	426	453	29	76	134	533

* 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 Mar 2020	267	15	3	11	8	2	102
02 Mar 2020	267	15	3	11	8	2	102
03 Mar 2020	267	15	3	11	8	2	102
04 Mar 2020	267	15	3	11	8	2	102
05 Mar 2020	474	10	3	8	6	2	51
06 Mar 2020	403	15	3	11	8	2	37
07 Mar 2020	403	15	3	11	8	2	37
08 Mar 2020	403	15	3	11	8	2	37
09 Mar 2020	208	22	6	8	6	3	48
10 Mar 2020	208	22	6	8	6	3	48
11 Mar 2020	317	13	6	3	2	3	29
12 Mar 2020	317	13	6	3	2	3	29
13 Mar 2020	317	13	6	3	2	3	29
14 Mar 2020	317	13	6	3	2	3	29
15 Mar 2020	317	13	6	3	2	3	29
16 Mar 2020	127	40	21	5	5	6	72
17 Mar 2020	127	40	21	5	5	6	72
18 Mar 2020	127	40	21	5	5	6	72
19 Mar 2020	63	35	33	4	7	8	43
20 Mar 2020	63	35	33	4	7	8	43
21 Mar 2020	63	35	33	4	7	8	43
22 Mar 2020	63	35	33	4	7	8	43
23 Mar 2020	63	35	33	4	7	8	43
24 Mar 2020	42	54	56	11	20	22	66
25 Mar 2020	42	54	56	11	20	22	66
26 Mar 2020	37	122	129	17	35	39	148
27 Mar 2020	37	122	129	17	35	39	148
28 Mar 2020	37	122	129	17	35	39	148
29 Mar 2020	37	122	129	17	35	39	148
30 Mar 2020	37	122	129	17	35	39	148
31 Mar 2020	37	122	129	17	35	39	148

* 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 Mar 2020	68	9	6	17	8	2	126
02 Mar 2020	68	9	6	17	8	2	126
03 Mar 2020	68	9	6	17	8	2	126
04 Mar 2020	68	9	6	17	8	2	126
05 Mar 2020	97	7	5	12	6	2	55
06 Mar 2020	67	8	4	14	8	2	36
07 Mar 2020	67	8	4	14	8	2	36
08 Mar 2020	67	8	4	14	8	2	36
09 Mar 2020	46	13	6	9	6	4	44
10 Mar 2020	46	13	6	9	6	4	44
11 Mar 2020	54	9	4	3	2	4	27
12 Mar 2020	54	9	4	3	2	4	27
13 Mar 2020	54	9	4	3	2	4	27
14 Mar 2020	54	9	4	3	2	4	27
15 Mar 2020	54	9	4	3	2	4	27
16 Mar 2020	34	19	10	3	4	5	42
17 Mar 2020	34	19	10	3	4	5	42
18 Mar 2020	34	19	10	3	4	5	42
19 Mar 2020	16	18	14	3	4	7	23
20 Mar 2020	16	18	14	3	4	7	23
21 Mar 2020	16	18	14	3	4	7	23
22 Mar 2020	16	18	14	3	4	7	23
23 Mar 2020	16	18	14	3	4	7	23
24 Mar 2020	15	20	16	4	7	12	36
25 Mar 2020	15	20	16	4	7	12	36
26 Mar 2020	24	35	26	4	10	18	56
27 Mar 2020	24	35	26	4	10	18	56
28 Mar 2020	24	35	26	4	10	18	56
29 Mar 2020	24	35	26	4	10	18	56
30 Mar 2020	24	35	26	4	10	18	56
31 Mar 2020	24	35	26	4	10	18	56

* 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
05 Mar 2020	E	IC	IC	IC	IC	IC	IC
09 Mar 2020	IC						
16 Mar 2020	IC	E	E	IC	IC	IC	E
24 Mar 2020	IC	IC	IC	IC	E	E	E

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
05 Mar 2020	E	IC	IC	IC	IC	IC	IC
09 Mar 2020	IC						
16 Mar 2020	IC	E	E	IC	IC	E	E
24 Mar 2020	IC	E	E	E	E	E	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
05 Mar 2020	E	IC	IC	IC	IC	IC	IC
09 Mar 2020	IC	E	IC	IC	IC	IC	E
16 Mar 2020	IC	E	E	IC	IC	IC	E
24 Mar 2020	IC	IC	IC	IC	E	E	E

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
05 Mar 2020	E	IC	IC	IC	IC	IC	IC
09 Mar 2020	IC	IC	E	IC	IC	IC	IC
16 Mar 2020	IC	E	E	IC	E	E	E
24 Mar 2020	IC	IC	E	E	E	E	E

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* (Enter) 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	Enter	F:T	Temp	XMS	DO	Sal	pH
I19	05 Mar 2020	1103	2	>16000	>12000	820	0.75	16.5	49.65	7.5	32.36	8.0
I19	05 Mar 2020	1103	6	>16000	1600e	380e	0.10	15.2	78.71	8.1	33.58	8.0
I19	05 Mar 2020	1103	11	1200e	560	<2	0.47	14.9	49.65	7.5	33.52	8.0
I19	09 Mar 2020	956	2	10e	6e	6e	0.60	16.1	83.03	8.0	33.51	8.1
I19	09 Mar 2020	956	6	<20	<2	6e	0.10	16.0	83.04	8.0	33.51	8.1
I19	09 Mar 2020	956	11	100	36e	20e	0.36	15.7	78.06	7.9	33.51	8.1
I19	16 Mar 2020	1059	2	28e	6e	4e	0.21	16.6	71.06	8.3	33.44	8.1
I19	16 Mar 2020	1059	6	20e	<2	<2	0.10	16.5	78.94	8.2	33.47	8.1
I19	16 Mar 2020	1059	11	<20	2e	10e	0.10	16.5	43.10	7.7	33.46	8.0
I19	24 Mar 2020	1042	2	8e	4e	2e	0.50	16.8	67.35	8.2	33.39	8.1
I19	24 Mar 2020	1042	6	10e	2e	<2	0.20	15.3	77.85	7.5	33.52	8.0
I19	24 Mar 2020	1042	11	40e	18e	40	0.45	15.1	52.38	7.1	33.50	8.0
I24	05 Mar 2020	1146	2	2e	<2	<2	1.00	15.9	76.75	8.0	33.50	8.1
I24	05 Mar 2020	1146	6	<2	<2	<2	1.00	15.5	76.74	7.9	33.54	8.0
I24	05 Mar 2020	1146	11	8e	<2	<2	0.25	15.3	77.17	7.9	33.51	8.0
I24	09 Mar 2020	1012	2	640	160e	110	0.25	16.3	72.81	8.1	33.44	8.1
I24	09 Mar 2020	1012	6	820	100e	94	0.12	16.2	72.76	7.8	33.47	8.1
I24	09 Mar 2020	1012	11	20e	14e	8e	0.70	14.4	61.08	6.5	33.53	7.9
I24	16 Mar 2020	1122	2	>16000	11000	1000	0.69	16.6	59.99	7.9	33.16	8.0
I24	16 Mar 2020	1122	6	3400e	740	32e	0.22	16.6	72.74	7.6	33.43	8.0
I24	16 Mar 2020	1122	11	2400e	460	24e	0.19	16.5	67.21	7.5	33.44	8.0
I24	24 Mar 2020	1108	2	300e	480	16e	1.60	17.4	71.28	8.8	33.23	8.2
I24	24 Mar 2020	1108	6	4600	340e	46	0.07	16.7	67.92	8.3	33.40	8.1
I24	24 Mar 2020	1108	11	2000e	66	26e	0.03	15.3	70.06	7.4	33.49	8.0
I25	05 Mar 2020	1156	2	<2	<2	<2	1.00	15.9	78.15	6.2	33.35	8.1
I25	05 Mar 2020	1156	6	<2	<2	<2	1.00	15.5	78.43	8.1	33.58	8.1
I25	05 Mar 2020	1156	9	4e	<2	<2	0.50	15.3	78.85	7.9	33.54	8.1
I25	09 Mar 2020	1019	2	1500	240e	100e	0.16	16.2	72.06	7.7	33.42	8.1
I25	09 Mar 2020	1019	6	16e	4e	8e	0.25	16.2	74.03	7.8	33.47	8.1
I25	09 Mar 2020	1019	9	10e	4e	6e	0.40	15.7	81.56	7.5	33.53	8.0
I25	16 Mar 2020	1131	2	>16000	8600	560	0.54	16.6	64.88	8.0	33.22	8.1
I25	16 Mar 2020	1131	6	4400	1400e	92	0.32	16.5	77.38	7.8	33.46	8.1
I25	16 Mar 2020	1131	9	6000	520	42	0.09	16.5	74.68	7.7	33.45	8.1
I25	24 Mar 2020	1119	2	6400	800e	42	0.12	16.9	71.15	8.6	33.27	8.2
I25	24 Mar 2020	1119	6	2800e	420	28e	0.15	16.6	76.56	8.4	33.42	8.1
I25	24 Mar 2020	1119	9	1400	200e	12e	0.14	15.1	82.25	7.6	33.54	8.0
I26	05 Mar 2020	1208	2	2e	<2	<2	1.00	16.2	79.19	8.5	33.51	8.1
I26	05 Mar 2020	1208	6	2e	<2	4e	1.00	15.2	74.45	8.2	33.54	8.0
I26	05 Mar 2020	1208	9	2e	<2	<2	1.00	15.1	73.77	8.0	33.51	8.0

Station	Date	Time	Depth	Total	Fecal	Enter	F:T	Temp	XMS	DO	Sal	pH
I26	09 Mar 2020	1029	2	<2	<2	2e	1.00	16.2	83.93	8.1	33.51	8.1
I26	09 Mar 2020	1029	6	<2	<2	<2	1.00	15.6	83.81	7.9	33.52	8.1
I26	09 Mar 2020	1029	9	<2	<2	<2	1.00	15.4	81.69	8.0	33.51	8.1
I26	16 Mar 2020	1146	2	120	48	<2	0.40	16.7	74.40	8.4	33.38	8.1
I26	16 Mar 2020	1146	6	100e	36e	6e	0.36	16.4	78.03	7.9	33.46	8.1
I26	16 Mar 2020	1146	9	220e	34e	4e	0.15	16.4	75.35	7.9	33.46	8.1
I26	24 Mar 2020	1131	2	2800e	1600e	26e	0.57	17.2	58.13	8.5	33.06	8.1
I26	24 Mar 2020	1131	6	480	110	12e	0.23	15.6	82.26	8.0	33.49	8.1
I26	24 Mar 2020	1131	9	200e	30e	6e	0.15	15.1	80.80	7.4	33.50	8.0
I32	05 Mar 2020	1222	2	<2	<2	<2	1.00	16.2	75.67	8.2	33.52	8.1
I32	05 Mar 2020	1222	6	<2	<2	<2	1.00	16.2	70.70	8.2	33.52	8.1
I32	05 Mar 2020	1222	9	<2	<2	<2	1.00	15.2	37.64	7.3	33.52	8.0
I32	09 Mar 2020	1044	2	<2	<2	4e	1.00	16.2	79.07	8.0	33.50	8.1
I32	09 Mar 2020	1044	6	<2	<2	<2	1.00	15.8	83.18	8.2	33.54	8.1
I32	09 Mar 2020	1044	9	<2	<2	<2	1.00	15.4	81.81	8.0	33.54	8.1
I32	16 Mar 2020	1200	2	200e	100	4e	0.50	16.8	60.20	8.4	33.31	8.1
I32	16 Mar 2020	1200	6	1800e	300e	18e	0.17	16.6	53.61	7.8	33.40	8.1
I32	16 Mar 2020	1200	9	2400e	320e	68	0.13	16.4	45.29	7.1	33.43	8.0
I32	24 Mar 2020	1148	2	>16000	4400	160e	0.28	16.5	40.78	8.3	33.28	8.1
I32	24 Mar 2020	1148	6	980	86	20e	0.09	15.5	72.48	7.6	33.48	8.1
I32	24 Mar 2020	1148	9	280e	16e	20e	0.06	15.4	66.62	7.5	33.48	8.1
I39	05 Mar 2020	1043	2	<2	<2	<2	1.00	16.0	79.46	8.8	33.50	8.1
I39	05 Mar 2020	1043	12	<2	<2	<2	1.00	15.3	82.55	8.4	33.46	8.1
I39	05 Mar 2020	1043	18	4e	<2	<2	0.50	14.8	83.14	8.1	33.52	8.0
I39	09 Mar 2020	935	2	26e	4e	42	0.15	16.0	85.59	7.9	33.49	8.1
I39	09 Mar 2020	935	12	52	12e	54	0.23	15.6	86.46	8.1	33.59	8.1
I39	09 Mar 2020	935	18	28e	6e	12e	0.21	14.0	81.90	7.1	33.53	8.0
I39	16 Mar 2020	1034	2	2000e	440	34e	0.22	16.7	66.77	8.4	33.30	8.1
I39	16 Mar 2020	1034	12	6e	2e	<2	0.33	16.1	86.14	8.0	33.50	8.1
I39	16 Mar 2020	1034	18	22e	2e	<2	0.09	15.8	85.11	7.7	33.51	8.0
I39	24 Mar 2020	1020	2	15000	3200e	340e	0.21	16.5	76.33	8.3	33.28	8.1
I39	24 Mar 2020	1020	12	16e	<2	<2	0.12	16.0	86.93	8.3	33.47	8.1
I39	24 Mar 2020	1020	18	40e	2e	2e	0.05	15.7	86.88	8.0	33.47	8.1
I40	05 Mar 2020	1136	2	14e	2e	<2	0.14	16.1	69.06	6.3	33.45	8.1
I40	05 Mar 2020	1136	6	6e	4e	<2	0.67	15.5	75.82	7.6	33.69	8.0
I40	05 Mar 2020	1136	9	20e	4e	2e	0.20	14.9	52.11	7.1	33.56	8.0
I40	09 Mar 2020	1006	2	520	360e	240e	0.69	16.3	77.24	8.0	33.46	8.1
I40	09 Mar 2020	1006	6	120e	42	20e	0.35	15.5	75.35	7.9	33.58	8.1
I40	09 Mar 2020	1006	9	60e	10e	14e	0.17	14.6	41.70	6.9	33.53	8.0
I40	16 Mar 2020	1112	2	>16000	8000	700	0.50	16.8	58.99	8.6	33.31	8.1
I40	16 Mar 2020	1112	6	600e	260e	16e	0.43	16.6	72.45	7.5	33.43	8.0
I40	16 Mar 2020	1112	9	1400	200e	18e	0.14	16.5	70.07	7.5	33.46	8.0
I40	24 Mar 2020	1057	2	600e	340e	8e	0.57	17.1	58.64	8.2	33.39	8.1
I40	24 Mar 2020	1057	6	11000	400	220e	0.04	16.3	53.01	7.5	33.43	8.1
I40	24 Mar 2020	1057	9	1400e	360e	420	0.26	15.5	40.67	6.1	33.50	8.0

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	05 Mar 2020	Depth (m)	11
I19	05 Mar 2020	Arrive Time	1103
I19	05 Mar 2020	Depart Time	1127
I19	05 Mar 2020	Air Temp (C)	16
I19	05 Mar 2020	Weather	Clear
I19	05 Mar 2020	Visibility (mi)	10
I19	05 Mar 2020	Wind Speed (kts)	3
I19	05 Mar 2020	Wind Dir	SW
I19	05 Mar 2020	Water Color	Greenish-Brown
I19	05 Mar 2020	Wave Ht Low (ft)	3
I19	05 Mar 2020	Wave Period (sec)	11
I19	05 Mar 2020	Sea State	Light chop
I19	05 Mar 2020	High Tide (ft)	5
I19	05 Mar 2020	High Tide Time	515
I19	05 Mar 2020	Low Tide (ft)	-0.55
I19	05 Mar 2020	Low Tide Time	1244
I19	05 Mar 2020	Comments	Sewage-like odor
I19	09 Mar 2020	Depth (m)	11
I19	09 Mar 2020	Arrive Time	956
I19	09 Mar 2020	Depart Time	959
I19	09 Mar 2020	Air Temp (C)	17
I19	09 Mar 2020	Weather	Partly Cloudy
I19	09 Mar 2020	Visibility (mi)	14
I19	09 Mar 2020	Wind Speed (kts)	4
I19	09 Mar 2020	Wind Dir	N
I19	09 Mar 2020	Water Color	Brownish-Green
I19	09 Mar 2020	Wave Ht Low (ft)	2
I19	09 Mar 2020	Wave Period (sec)	11
I19	09 Mar 2020	Sea State	Wind ripples
I19	09 Mar 2020	High Tide (ft)	6.22
I19	09 Mar 2020	High Tide Time	926
I19	09 Mar 2020	Low Tide (ft)	-1.29
I19	09 Mar 2020	Low Tide Time	1608
I19	09 Mar 2020	Comments	none
I19	16 Mar 2020	Depth (m)	9
I19	16 Mar 2020	Arrive Time	1059
I19	16 Mar 2020	Depart Time	1102
I19	16 Mar 2020	Air Temp (C)	15
I19	16 Mar 2020	Weather	Cloudy
I19	16 Mar 2020	Visibility (mi)	10
I19	16 Mar 2020	Wind Speed (kts)	5
I19	16 Mar 2020	Wind Dir	E
I19	16 Mar 2020	Water Color	Green
I19	16 Mar 2020	Wave Ht Low (ft)	3
I19	16 Mar 2020	Wave Period (sec)	13
I19	16 Mar 2020	Sea State	Calm
I19	16 Mar 2020	High Tide (ft)	4.56
I19	16 Mar 2020	High Tide Time	306
I19	16 Mar 2020	Low Tide (ft)	0.23
I19	16 Mar 2020	Low Tide Time	1110
I19	16 Mar 2020	Comments	none
I19	24 Mar 2020	Depth (m)	12
I19	24 Mar 2020	Arrive Time	1042

Station	Date	Parameter	Value
I19	24 Mar 2020	Depart Time	1047
I19	24 Mar 2020	Air Temp (C)	16
I19	24 Mar 2020	Weather	Partly Cloudy
I19	24 Mar 2020	Visibility (mi)	18
I19	24 Mar 2020	Wind Speed (kts)	4
I19	24 Mar 2020	Wind Dir	SW
I19	24 Mar 2020	Water Color	Green
I19	24 Mar 2020	Wave Ht Low (ft)	4
I19	24 Mar 2020	Wave Period (sec)	13
I19	24 Mar 2020	Sea State	Calm
I19	24 Mar 2020	High Tide (ft)	4.82
I19	24 Mar 2020	High Tide Time	952
I19	24 Mar 2020	Low Tide (ft)	0.52
I19	24 Mar 2020	Low Tide Time	355
I19	24 Mar 2020	Comments	none
I24	05 Mar 2020	Depth (m)	11
I24	05 Mar 2020	Arrive Time	1146
I24	05 Mar 2020	Depart Time	1150
I24	05 Mar 2020	Air Temp (C)	15
I24	05 Mar 2020	Weather	Clear
I24	05 Mar 2020	Visibility (mi)	10
I24	05 Mar 2020	Wind Speed (kts)	8
I24	05 Mar 2020	Wind Dir	SW
I24	05 Mar 2020	Water Color	Greenish-Brown
I24	05 Mar 2020	Wave Ht Low (ft)	3
I24	05 Mar 2020	Wave Period (sec)	11
I24	05 Mar 2020	Sea State	Light chop
I24	05 Mar 2020	High Tide (ft)	5
I24	05 Mar 2020	High Tide Time	515
I24	05 Mar 2020	Low Tide (ft)	-0.55
I24	05 Mar 2020	Low Tide Time	1244
I24	05 Mar 2020	Comments	none
I24	09 Mar 2020	Depth (m)	11
I24	09 Mar 2020	Arrive Time	1012
I24	09 Mar 2020	Depart Time	1015
I24	09 Mar 2020	Air Temp (C)	16
I24	09 Mar 2020	Weather	Partly Cloudy
I24	09 Mar 2020	Visibility (mi)	14
I24	09 Mar 2020	Wind Speed (kts)	5
I24	09 Mar 2020	Wind Dir	NW
I24	09 Mar 2020	Water Color	Brownish-Green
I24	09 Mar 2020	Wave Ht Low (ft)	2
I24	09 Mar 2020	Wave Period (sec)	11
I24	09 Mar 2020	Sea State	Wind ripples
I24	09 Mar 2020	High Tide (ft)	6.22
I24	09 Mar 2020	High Tide Time	926
I24	09 Mar 2020	Low Tide (ft)	-1.29
I24	09 Mar 2020	Low Tide Time	1608
I24	09 Mar 2020	Comments	none
I24	16 Mar 2020	Depth (m)	9
I24	16 Mar 2020	Arrive Time	1122
I24	16 Mar 2020	Depart Time	1128
I24	16 Mar 2020	Air Temp (C)	16
I24	16 Mar 2020	Weather	Cloudy
I24	16 Mar 2020	Visibility (mi)	10
I24	16 Mar 2020	Wind Speed (kts)	6
I24	16 Mar 2020	Wind Dir	E
I24	16 Mar 2020	Water Color	Greenish-Brown

Station	Date	Parameter	Value
I24	16 Mar 2020	Wave Ht Low (ft)	3
I24	16 Mar 2020	Wave Period (sec)	13
I24	16 Mar 2020	Sea State	Calm
I24	16 Mar 2020	High Tide (ft)	4.56
I24	16 Mar 2020	High Tide Time	306
I24	16 Mar 2020	Low Tide (ft)	0.23
I24	16 Mar 2020	Low Tide Time	1110
I24	16 Mar 2020	Comments	none
I24	24 Mar 2020	Depth (m)	11
I24	24 Mar 2020	Arrive Time	1108
I24	24 Mar 2020	Depart Time	1114
I24	24 Mar 2020	Air Temp (C)	15
I24	24 Mar 2020	Weather	Partly Cloudy
I24	24 Mar 2020	Visibility (mi)	18
I24	24 Mar 2020	Wind Speed (kts)	5
I24	24 Mar 2020	Wind Dir	SW
I24	24 Mar 2020	Water Color	Green
I24	24 Mar 2020	Wave Ht Low (ft)	4
I24	24 Mar 2020	Wave Period (sec)	13
I24	24 Mar 2020	Sea State	Calm
I24	24 Mar 2020	High Tide (ft)	4.82
I24	24 Mar 2020	High Tide Time	952
I24	24 Mar 2020	Low Tide (ft)	0.52
I24	24 Mar 2020	Low Tide Time	355
I24	24 Mar 2020	Comments	none
I25	05 Mar 2020	Depth (m)	8
I25	05 Mar 2020	Arrive Time	1156
I25	05 Mar 2020	Depart Time	1200
I25	05 Mar 2020	Air Temp (C)	15
I25	05 Mar 2020	Weather	Clear
I25	05 Mar 2020	Visibility (mi)	10
I25	05 Mar 2020	Wind Speed (kts)	14
I25	05 Mar 2020	Wind Dir	SW
I25	05 Mar 2020	Water Color	Greenish-Brown
I25	05 Mar 2020	Wave Ht Low (ft)	3
I25	05 Mar 2020	Wave Period (sec)	11
I25	05 Mar 2020	Sea State	Light chop
I25	05 Mar 2020	High Tide (ft)	5
I25	05 Mar 2020	High Tide Time	515
I25	05 Mar 2020	Low Tide (ft)	-0.55
I25	05 Mar 2020	Low Tide Time	1244
I25	05 Mar 2020	Comments	none
I25	09 Mar 2020	Depth (m)	10
I25	09 Mar 2020	Arrive Time	1019
I25	09 Mar 2020	Depart Time	1024
I25	09 Mar 2020	Air Temp (C)	16
I25	09 Mar 2020	Weather	Partly Cloudy
I25	09 Mar 2020	Visibility (mi)	14
I25	09 Mar 2020	Wind Speed (kts)	5
I25	09 Mar 2020	Wind Dir	W
I25	09 Mar 2020	Water Color	Green
I25	09 Mar 2020	Wave Ht Low (ft)	2
I25	09 Mar 2020	Wave Period (sec)	11
I25	09 Mar 2020	Sea State	Wind ripples
I25	09 Mar 2020	High Tide (ft)	6.22
I25	09 Mar 2020	High Tide Time	926
I25	09 Mar 2020	Low Tide (ft)	-1.29
I25	09 Mar 2020	Low Tide Time	1608

Station	Date	Parameter	Value
I25	09 Mar 2020	Comments	none
I25	16 Mar 2020	Depth (m)	9
I25	16 Mar 2020	Arrive Time	1131
I25	16 Mar 2020	Depart Time	1139
I25	16 Mar 2020	Air Temp (C)	15
I25	16 Mar 2020	Weather	Cloudy
I25	16 Mar 2020	Visibility (mi)	10
I25	16 Mar 2020	Wind Speed (kts)	4
I25	16 Mar 2020	Wind Dir	E
I25	16 Mar 2020	Water Color	Greenish-Brown
I25	16 Mar 2020	Wave Ht Low (ft)	3
I25	16 Mar 2020	Wave Period (sec)	13
I25	16 Mar 2020	Sea State	Calm
I25	16 Mar 2020	High Tide (ft)	4.56
I25	16 Mar 2020	High Tide Time	306
I25	16 Mar 2020	Low Tide (ft)	0.23
I25	16 Mar 2020	Low Tide Time	1110
I25	16 Mar 2020	Comments	none
I25	24 Mar 2020	Depth (m)	10
I25	24 Mar 2020	Arrive Time	1119
I25	24 Mar 2020	Depart Time	1121
I25	24 Mar 2020	Air Temp (C)	15
I25	24 Mar 2020	Weather	Partly Cloudy
I25	24 Mar 2020	Visibility (mi)	18
I25	24 Mar 2020	Wind Speed (kts)	6
I25	24 Mar 2020	Wind Dir	SW
I25	24 Mar 2020	Water Color	Green
I25	24 Mar 2020	Wave Ht Low (ft)	4
I25	24 Mar 2020	Wave Period (sec)	13
I25	24 Mar 2020	Sea State	Calm
I25	24 Mar 2020	High Tide (ft)	4.82
I25	24 Mar 2020	High Tide Time	952
I25	24 Mar 2020	Low Tide (ft)	0.52
I25	24 Mar 2020	Low Tide Time	355
I25	24 Mar 2020	Comments	none
I26	05 Mar 2020	Depth (m)	9
I26	05 Mar 2020	Arrive Time	1208
I26	05 Mar 2020	Depart Time	1212
I26	05 Mar 2020	Air Temp (C)	15
I26	05 Mar 2020	Weather	Clear
I26	05 Mar 2020	Visibility (mi)	10
I26	05 Mar 2020	Wind Speed (kts)	14
I26	05 Mar 2020	Wind Dir	SW
I26	05 Mar 2020	Water Color	Greenish-Brown
I26	05 Mar 2020	Wave Ht Low (ft)	3
I26	05 Mar 2020	Wave Period (sec)	11
I26	05 Mar 2020	Sea State	Light chop
I26	05 Mar 2020	High Tide (ft)	5
I26	05 Mar 2020	High Tide Time	515
I26	05 Mar 2020	Low Tide (ft)	-0.55
I26	05 Mar 2020	Low Tide Time	1244
I26	05 Mar 2020	Comments	none
I26	09 Mar 2020	Depth (m)	10
I26	09 Mar 2020	Arrive Time	1029
I26	09 Mar 2020	Depart Time	1044
I26	09 Mar 2020	Air Temp (C)	16
I26	09 Mar 2020	Weather	Partly Cloudy

Station	Date	Parameter	Value
I26	09 Mar 2020	Visibility (mi)	14
I26	09 Mar 2020	Wind Speed (kts)	10
I26	09 Mar 2020	Wind Dir	W
I26	09 Mar 2020	Water Color	Green
I26	09 Mar 2020	Wave Ht Low (ft)	2
I26	09 Mar 2020	Wave Period (sec)	11
I26	09 Mar 2020	Sea State	Wind ripples
I26	09 Mar 2020	High Tide (ft)	6.22
I26	09 Mar 2020	High Tide Time	926
I26	09 Mar 2020	Low Tide (ft)	-1.29
I26	09 Mar 2020	Low Tide Time	1608
I26	09 Mar 2020	Comments	none
I26	16 Mar 2020	Depth (m)	9
I26	16 Mar 2020	Arrive Time	1146
I26	16 Mar 2020	Depart Time	1149
I26	16 Mar 2020	Air Temp (C)	16
I26	16 Mar 2020	Weather	Cloudy
I26	16 Mar 2020	Visibility (mi)	10
I26	16 Mar 2020	Wind Speed (kts)	8
I26	16 Mar 2020	Wind Dir	E
I26	16 Mar 2020	Water Color	Bluish-Green
I26	16 Mar 2020	Wave Ht Low (ft)	3
I26	16 Mar 2020	Wave Period (sec)	13
I26	16 Mar 2020	Sea State	Calm
I26	16 Mar 2020	High Tide (ft)	4.56
I26	16 Mar 2020	High Tide Time	306
I26	16 Mar 2020	Low Tide (ft)	0.23
I26	16 Mar 2020	Low Tide Time	1110
I26	16 Mar 2020	Comments	none
I26	24 Mar 2020	Depth (m)	10
I26	24 Mar 2020	Arrive Time	1131
I26	24 Mar 2020	Depart Time	1137
I26	24 Mar 2020	Air Temp (C)	15
I26	24 Mar 2020	Weather	Partly Cloudy
I26	24 Mar 2020	Visibility (mi)	18
I26	24 Mar 2020	Wind Speed (kts)	8
I26	24 Mar 2020	Wind Dir	SW
I26	24 Mar 2020	Water Color	Green
I26	24 Mar 2020	Wave Ht Low (ft)	4
I26	24 Mar 2020	Wave Period (sec)	13
I26	24 Mar 2020	Sea State	Calm
I26	24 Mar 2020	High Tide (ft)	4.82
I26	24 Mar 2020	High Tide Time	952
I26	24 Mar 2020	Low Tide (ft)	0.52
I26	24 Mar 2020	Low Tide Time	355
I26	24 Mar 2020	Comments	none
I32	05 Mar 2020	Depth (m)	10
I32	05 Mar 2020	Arrive Time	1222
I32	05 Mar 2020	Depart Time	1226
I32	05 Mar 2020	Air Temp (C)	16
I32	05 Mar 2020	Weather	Clear
I32	05 Mar 2020	Visibility (mi)	10
I32	05 Mar 2020	Wind Speed (kts)	5
I32	05 Mar 2020	Wind Dir	W
I32	05 Mar 2020	Water Color	Greenish-Blue
I32	05 Mar 2020	Wave Ht Low (ft)	3
I32	05 Mar 2020	Wave Period (sec)	11
I32	05 Mar 2020	Sea State	Light chop

Station	Date	Parameter	Value
I32	05 Mar 2020	High Tide (ft)	5
I32	05 Mar 2020	High Tide Time	515
I32	05 Mar 2020	Low Tide (ft)	-0.55
I32	05 Mar 2020	Low Tide Time	1244
I32	05 Mar 2020	Comments	none
I32	09 Mar 2020	Depth (m)	11
I32	09 Mar 2020	Arrive Time	1044
I32	09 Mar 2020	Depart Time	1045
I32	09 Mar 2020	Air Temp (C)	16
I32	09 Mar 2020	Weather	Partly Cloudy
I32	09 Mar 2020	Visibility (mi)	14
I32	09 Mar 2020	Wind Speed (kts)	1
I32	09 Mar 2020	Wind Dir	SW
I32	09 Mar 2020	Water Color	Green
I32	09 Mar 2020	Wave Ht Low (ft)	2
I32	09 Mar 2020	Wave Period (sec)	11
I32	09 Mar 2020	Sea State	Wind ripples
I32	09 Mar 2020	High Tide (ft)	6.22
I32	09 Mar 2020	High Tide Time	926
I32	09 Mar 2020	Low Tide (ft)	-1.29
I32	09 Mar 2020	Low Tide Time	1608
I32	09 Mar 2020	Comments	none
I32	16 Mar 2020	Depth (m)	9
I32	16 Mar 2020	Arrive Time	1200
I32	16 Mar 2020	Depart Time	1203
I32	16 Mar 2020	Air Temp (C)	15
I32	16 Mar 2020	Weather	Cloudy
I32	16 Mar 2020	Visibility (mi)	10
I32	16 Mar 2020	Wind Speed (kts)	8
I32	16 Mar 2020	Wind Dir	E
I32	16 Mar 2020	Water Color	Bluish-Green
I32	16 Mar 2020	Wave Ht Low (ft)	3
I32	16 Mar 2020	Wave Period (sec)	13
I32	16 Mar 2020	Sea State	Calm
I32	16 Mar 2020	High Tide (ft)	4.56
I32	16 Mar 2020	High Tide Time	306
I32	16 Mar 2020	Low Tide (ft)	0.23
I32	16 Mar 2020	Low Tide Time	1110
I32	16 Mar 2020	Comments	none
I32	24 Mar 2020	Depth (m)	11
I32	24 Mar 2020	Arrive Time	1148
I32	24 Mar 2020	Depart Time	1154
I32	24 Mar 2020	Air Temp (C)	16
I32	24 Mar 2020	Weather	Partly Cloudy
I32	24 Mar 2020	Visibility (mi)	18
I32	24 Mar 2020	Wind Speed (kts)	2
I32	24 Mar 2020	Wind Dir	S
I32	24 Mar 2020	Water Color	Green
I32	24 Mar 2020	Wave Ht Low (ft)	4
I32	24 Mar 2020	Wave Period (sec)	13
I32	24 Mar 2020	Sea State	Calm
I32	24 Mar 2020	High Tide (ft)	4.82
I32	24 Mar 2020	High Tide Time	952
I32	24 Mar 2020	Low Tide (ft)	0.52
I32	24 Mar 2020	Low Tide Time	355
I32	24 Mar 2020	Comments	none
I39	05 Mar 2020	Depth (m)	18

Station	Date	Parameter	Value
I39	05 Mar 2020	Arrive Time	1043
I39	05 Mar 2020	Depart Time	1046
I39	05 Mar 2020	Air Temp (C)	15
I39	05 Mar 2020	Weather	Clear
I39	05 Mar 2020	Visibility (mi)	10
I39	05 Mar 2020	Wind Speed (kts)	4
I39	05 Mar 2020	Wind Dir	SW
I39	05 Mar 2020	Water Color	Bluish-Green
I39	05 Mar 2020	Wave Ht Low (ft)	3
I39	05 Mar 2020	Wave Period (sec)	11
I39	05 Mar 2020	Sea State	Light chop
I39	05 Mar 2020	High Tide (ft)	5
I39	05 Mar 2020	High Tide Time	515
I39	05 Mar 2020	Low Tide (ft)	-0.55
I39	05 Mar 2020	Low Tide Time	1244
I39	05 Mar 2020	Comments	none
I39	09 Mar 2020	Depth (m)	18
I39	09 Mar 2020	Arrive Time	935
I39	09 Mar 2020	Depart Time	939
I39	09 Mar 2020	Air Temp (C)	15
I39	09 Mar 2020	Weather	Partly Cloudy
I39	09 Mar 2020	Visibility (mi)	14
I39	09 Mar 2020	Wind Speed (kts)	5
I39	09 Mar 2020	Wind Dir	NW
I39	09 Mar 2020	Water Color	Greenish-Blue
I39	09 Mar 2020	Wave Ht Low (ft)	2
I39	09 Mar 2020	Wave Period (sec)	11
I39	09 Mar 2020	Sea State	Wind ripples
I39	09 Mar 2020	High Tide (ft)	6.22
I39	09 Mar 2020	High Tide Time	926
I39	09 Mar 2020	Low Tide (ft)	-1.29
I39	09 Mar 2020	Low Tide Time	1608
I39	09 Mar 2020	Comments	Kelp
I39	16 Mar 2020	Depth (m)	18
I39	16 Mar 2020	Arrive Time	1034
I39	16 Mar 2020	Depart Time	1039
I39	16 Mar 2020	Air Temp (C)	15
I39	16 Mar 2020	Weather	Cloudy
I39	16 Mar 2020	Visibility (mi)	10
I39	16 Mar 2020	Wind Speed (kts)	6
I39	16 Mar 2020	Wind Dir	SE
I39	16 Mar 2020	Water Color	Bluish-Green
I39	16 Mar 2020	Wave Ht Low (ft)	3
I39	16 Mar 2020	Wave Period (sec)	13
I39	16 Mar 2020	Sea State	Calm
I39	16 Mar 2020	High Tide (ft)	4.56
I39	16 Mar 2020	High Tide Time	306
I39	16 Mar 2020	Low Tide (ft)	0.23
I39	16 Mar 2020	Low Tide Time	1110
I39	16 Mar 2020	Comments	none
I39	24 Mar 2020	Depth (m)	20
I39	24 Mar 2020	Arrive Time	1020
I39	24 Mar 2020	Depart Time	1026
I39	24 Mar 2020	Air Temp (C)	15
I39	24 Mar 2020	Weather	Partly Cloudy
I39	24 Mar 2020	Visibility (mi)	18
I39	24 Mar 2020	Wind Speed (kts)	1
I39	24 Mar 2020	Wind Dir	SW

Station	Date	Parameter	Value
I39	24 Mar 2020	Water Color	Bluish-Green
I39	24 Mar 2020	Wave Ht Low (ft)	4
I39	24 Mar 2020	Wave Period (sec)	13
I39	24 Mar 2020	Sea State	Calm
I39	24 Mar 2020	High Tide (ft)	4.82
I39	24 Mar 2020	High Tide Time	952
I39	24 Mar 2020	Low Tide (ft)	0.52
I39	24 Mar 2020	Low Tide Time	355
I39	24 Mar 2020	Comments	none
I40	05 Mar 2020	Depth (m)	9
I40	05 Mar 2020	Arrive Time	1136
I40	05 Mar 2020	Depart Time	1140
I40	05 Mar 2020	Air Temp (C)	15
I40	05 Mar 2020	Weather	Clear
I40	05 Mar 2020	Visibility (mi)	10
I40	05 Mar 2020	Wind Speed (kts)	13
I40	05 Mar 2020	Wind Dir	SW
I40	05 Mar 2020	Water Color	Greenish-Brown
I40	05 Mar 2020	Wave Ht Low (ft)	3
I40	05 Mar 2020	Wave Period (sec)	11
I40	05 Mar 2020	Sea State	Light chop
I40	05 Mar 2020	High Tide (ft)	5
I40	05 Mar 2020	High Tide Time	515
I40	05 Mar 2020	Low Tide (ft)	-0.55
I40	05 Mar 2020	Low Tide Time	1244
I40	05 Mar 2020	Comments	none
I40	09 Mar 2020	Depth (m)	11
I40	09 Mar 2020	Arrive Time	1006
I40	09 Mar 2020	Depart Time	1008
I40	09 Mar 2020	Air Temp (C)	16
I40	09 Mar 2020	Weather	Partly Cloudy
I40	09 Mar 2020	Visibility (mi)	14
I40	09 Mar 2020	Wind Speed (kts)	6
I40	09 Mar 2020	Wind Dir	N
I40	09 Mar 2020	Water Color	Brownish-Green
I40	09 Mar 2020	Wave Ht Low (ft)	2
I40	09 Mar 2020	Wave Period (sec)	11
I40	09 Mar 2020	Sea State	Wind ripples
I40	09 Mar 2020	High Tide (ft)	6.22
I40	09 Mar 2020	High Tide Time	926
I40	09 Mar 2020	Low Tide (ft)	-1.29
I40	09 Mar 2020	Low Tide Time	1608
I40	09 Mar 2020	Comments	none
I40	16 Mar 2020	Depth (m)	9
I40	16 Mar 2020	Arrive Time	1112
I40	16 Mar 2020	Depart Time	1115
I40	16 Mar 2020	Air Temp (C)	16
I40	16 Mar 2020	Weather	Cloudy
I40	16 Mar 2020	Visibility (mi)	10
I40	16 Mar 2020	Wind Speed (kts)	6
I40	16 Mar 2020	Wind Dir	SE
I40	16 Mar 2020	Water Color	Greenish-Brown
I40	16 Mar 2020	Wave Ht Low (ft)	3
I40	16 Mar 2020	Wave Period (sec)	13
I40	16 Mar 2020	Sea State	Calm
I40	16 Mar 2020	High Tide (ft)	4.56
I40	16 Mar 2020	High Tide Time	306
I40	16 Mar 2020	Low Tide (ft)	0.23

Station	Date	Parameter	Value
I40	16 Mar 2020	Low Tide Time	1110
I40	16 Mar 2020	Comments	Sewage-like odor
I40	24 Mar 2020	Depth (m)	11
I40	24 Mar 2020	Arrive Time	1057
I40	24 Mar 2020	Depart Time	1100
I40	24 Mar 2020	Air Temp (C)	15
I40	24 Mar 2020	Weather	Partly Cloudy
I40	24 Mar 2020	Visibility (mi)	18
I40	24 Mar 2020	Wind Speed (kts)	4
I40	24 Mar 2020	Wind Dir	SW
I40	24 Mar 2020	Water Color	Green
I40	24 Mar 2020	Wave Ht Low (ft)	4
I40	24 Mar 2020	Wave Period (sec)	13
I40	24 Mar 2020	Sea State	Calm
I40	24 Mar 2020	High Tide (ft)	4.82
I40	24 Mar 2020	High Tide Time	952
I40	24 Mar 2020	Low Tide (ft)	0.52
I40	24 Mar 2020	Low Tide Time	355
I40	24 Mar 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 ($\sigma-t$)	Chlor ($\mu\text{g/L}$)
I19	05 Mar 2020	1	16.64	48.58	7.5	32.18	8.0	23.4	1.30
	05 Mar 2020	2	16.54	49.65	7.5	32.36	8.0	23.6	1.23
	05 Mar 2020	3	16.33	55.55	7.7	32.81	8.0	24.0	1.16
	05 Mar 2020	4	16.06	62.78	8.1	33.40	8.1	24.5	1.21
	05 Mar 2020	5	15.39	70.34	8.2	33.65	8.1	24.8	1.34
	05 Mar 2020	6	15.20	78.71	8.1	33.58	8.0	24.8	1.88
	05 Mar 2020	7	15.01	70.08	7.8	33.56	8.0	24.9	2.39
	05 Mar 2020	8	14.98	55.57	7.6	33.54	8.0	24.8	2.76
	05 Mar 2020	9	14.95	49.81	7.5	33.53	8.0	24.8	2.23
	05 Mar 2020	10	14.94	49.65	7.5	33.52	8.0	24.8	3.52
I19	09 Mar 2020	1	16.05	83.07	8.1	33.51	8.1	24.6	0.72
	09 Mar 2020	2	16.05	83.03	8.0	33.51	8.1	24.6	0.74
	09 Mar 2020	3	16.04	83.11	8.0	33.51	8.1	24.6	0.74
	09 Mar 2020	4	16.03	83.18	8.0	33.51	8.1	24.6	0.78
	09 Mar 2020	5	16.00	83.12	8.1	33.51	8.1	24.6	0.90
	09 Mar 2020	6	15.96	83.04	8.0	33.51	8.1	24.6	1.00
	09 Mar 2020	7	15.95	82.30	8.0	33.51	8.1	24.6	1.21
	09 Mar 2020	8	15.90	81.52	8.0	33.52	8.1	24.6	1.46
	09 Mar 2020	9	15.82	80.55	8.0	33.51	8.1	24.6	1.67
	09 Mar 2020	10	15.72	78.06	7.9	33.51	8.1	24.7	1.99
I19	16 Mar 2020	1	16.62	70.56	8.3	33.44	8.1	24.4	2.56
	16 Mar 2020	2	16.62	71.06	8.3	33.44	8.1	24.4	2.62
	16 Mar 2020	3	16.57	70.55	8.2	33.44	8.1	24.4	2.78
	16 Mar 2020	4	16.57	70.01	8.3	33.45	8.1	24.4	3.03
	16 Mar 2020	5	16.59	71.41	8.3	33.47	8.1	24.4	2.96
	16 Mar 2020	6	16.54	78.94	8.2	33.47	8.1	24.4	2.48
	16 Mar 2020	7	16.49	79.46	8.0	33.46	8.1	24.4	2.41
	16 Mar 2020	8	16.48	60.80	7.8	33.45	8.1	24.5	2.99
	16 Mar 2020	9	16.47	47.55	7.8	33.45	8.1	24.5	3.64
	16 Mar 2020	10	16.47	43.10	7.7	33.46	8.0	24.5	4.07
I19	24 Mar 2020	1	16.79	67.43	8.3	33.38	8.1	24.3	0.80
	24 Mar 2020	2	16.77	67.35	8.2	33.39	8.1	24.3	0.80
	24 Mar 2020	3	16.39	65.96	7.9	33.46	8.1	24.5	0.83
	24 Mar 2020	4	15.74	65.46	7.6	33.51	8.1	24.7	1.03
	24 Mar 2020	5	15.56	74.68	7.6	33.49	8.1	24.7	1.49
	24 Mar 2020	6	15.33	77.85	7.5	33.52	8.0	24.8	2.07
	24 Mar 2020	7	15.17	74.93	7.4	33.51	8.0	24.8	2.38
	24 Mar 2020	8	15.17	72.43	7.3	33.50	8.0	24.8	2.70
	24 Mar 2020	9	15.15	63.95	7.2	33.50	8.0	24.8	2.95
	24 Mar 2020	10	15.13	52.38	7.1	33.50	8.0	24.8	3.23
I24	05 Mar 2020	1	15.91	76.77	7.8	33.51	8.1	24.6	0.79
	05 Mar 2020	2	15.91	76.75	8.0	33.50	8.1	24.6	0.82
	05 Mar 2020	3	15.89	77.21	8.2	33.51	8.1	24.6	0.83
	05 Mar 2020	4	15.73	76.76	8.1	33.55	8.1	24.7	0.83
	05 Mar 2020	5	15.59	76.64	8.0	33.55	8.0	24.7	0.86
	05 Mar 2020	6	15.50	76.74	7.9	33.54	8.0	24.7	0.88
	05 Mar 2020	7	15.37	77.37	8.0	33.54	8.0	24.8	0.81
	05 Mar 2020	8	15.33	78.31	7.9	33.52	8.0	24.8	1.15
	05 Mar 2020	9	15.32	78.45	7.9	33.51	8.0	24.8	1.25
	05 Mar 2020	10	15.33	77.17	7.9	33.51	8.0	24.7	1.78
I24	09 Mar 2020	1	16.32	72.65	8.1	33.43	8.1	24.5	1.61

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I24	09 Mar 2020	2	16.30	72.81	8.1	33.44	8.1	24.5	1.60
I24	09 Mar 2020	3	16.28	72.61	8.1	33.44	8.1	24.5	1.65
I24	09 Mar 2020	4	16.28	72.71	8.1	33.44	8.1	24.5	1.85
I24	09 Mar 2020	5	16.27	72.76	8.1	33.44	8.1	24.5	2.06
I24	09 Mar 2020	6	16.22	72.76	7.8	33.47	8.1	24.5	2.32
I24	09 Mar 2020	7	15.67	74.25	7.4	33.56	8.0	24.7	2.23
I24	09 Mar 2020	8	15.41	75.11	7.2	33.54	8.0	24.8	1.78
I24	09 Mar 2020	9	14.83	75.26	7.0	33.59	8.0	24.9	1.49
I24	09 Mar 2020	10	14.44	70.35	6.8	33.55	8.0	25.0	1.58
I24	09 Mar 2020	11	14.40	61.08	6.5	33.53	7.9	25.0	1.87
I24	16 Mar 2020	1	16.76	60.59	8.0	32.98	8.1	24.0	2.13
I24	16 Mar 2020	2	16.65	59.99	7.9	33.16	8.0	24.2	2.44
I24	16 Mar 2020	3	16.59	58.32	7.6	33.35	8.0	24.3	3.15
I24	16 Mar 2020	4	16.58	64.76	7.6	33.41	8.0	24.4	3.03
I24	16 Mar 2020	5	16.57	70.47	7.6	33.42	8.0	24.4	2.74
I24	16 Mar 2020	6	16.55	72.74	7.6	33.43	8.0	24.4	2.54
I24	16 Mar 2020	7	16.54	73.13	7.6	33.44	8.0	24.4	2.37
I24	16 Mar 2020	8	16.52	73.39	7.6	33.44	8.0	24.4	2.19
I24	16 Mar 2020	9	16.51	70.65	7.6	33.45	8.0	24.4	2.01
I24	16 Mar 2020	10	16.51	67.21	7.5	33.44	8.0	24.4	1.92
I24	24 Mar 2020	1	17.38	71.23	8.8	33.21	8.2	24.0	0.63
I24	24 Mar 2020	2	17.36	71.28	8.8	33.23	8.2	24.1	0.64
I24	24 Mar 2020	3	17.34	71.09	8.8	33.24	8.2	24.1	0.65
I24	24 Mar 2020	4	17.30	71.10	8.7	33.27	8.2	24.1	0.68
I24	24 Mar 2020	5	16.98	70.55	8.6	33.39	8.2	24.3	0.72
I24	24 Mar 2020	6	16.70	67.92	8.3	33.40	8.1	24.4	0.93
I24	24 Mar 2020	7	16.66	65.71	8.2	33.38	8.1	24.4	1.37
I24	24 Mar 2020	8	16.24	66.29	8.0	33.46	8.1	24.5	1.60
I24	24 Mar 2020	9	15.87	69.29	7.9	33.47	8.1	24.6	1.61
I24	24 Mar 2020	10	15.38	75.54	7.6	33.53	8.1	24.8	1.43
I24	24 Mar 2020	11	15.33	70.06	7.4	33.49	8.0	24.7	1.37
I25	05 Mar 2020	1	15.91	77.43	6.1	33.26	8.1	24.4	1.46
I25	05 Mar 2020	2	15.90	78.15	6.2	33.35	8.1	24.5	1.51
I25	05 Mar 2020	3	15.79	77.94	6.8	33.51	8.1	24.6	1.32
I25	05 Mar 2020	4	15.74	77.98	7.5	33.55	8.1	24.7	1.31
I25	05 Mar 2020	5	15.56	77.90	7.8	33.60	8.1	24.8	1.54
I25	05 Mar 2020	6	15.46	78.43	8.1	33.58	8.1	24.8	1.44
I25	05 Mar 2020	7	15.32	78.65	8.0	33.55	8.1	24.8	0.63
I25	05 Mar 2020	8	15.30	78.85	7.9	33.54	8.1	24.8	0.66
I25	09 Mar 2020	1	16.29	72.39	7.6	33.42	8.1	24.5	1.06
I25	09 Mar 2020	2	16.25	72.06	7.7	33.42	8.1	24.5	1.03
I25	09 Mar 2020	3	16.23	71.22	7.7	33.42	8.1	24.5	1.04
I25	09 Mar 2020	4	16.23	71.19	7.8	33.42	8.1	24.5	1.05
I25	09 Mar 2020	5	16.20	72.26	7.8	33.44	8.1	24.5	1.17
I25	09 Mar 2020	6	16.17	74.03	7.8	33.47	8.1	24.5	1.34
I25	09 Mar 2020	7	16.04	76.48	7.8	33.53	8.1	24.6	1.51
I25	09 Mar 2020	8	15.87	79.64	7.6	33.53	8.0	24.6	1.53
I25	09 Mar 2020	9	15.72	81.56	7.5	33.53	8.0	24.7	1.30
I25	16 Mar 2020	1	16.67	63.89	8.0	33.06	8.0	24.1	2.04
I25	16 Mar 2020	2	16.63	64.88	8.0	33.22	8.1	24.2	2.27
I25	16 Mar 2020	3	16.61	66.32	8.0	33.28	8.1	24.3	2.63
I25	16 Mar 2020	4	16.53	69.33	7.9	33.44	8.1	24.4	2.61
I25	16 Mar 2020	5	16.51	77.86	7.8	33.45	8.1	24.4	2.09
I25	16 Mar 2020	6	16.50	77.38	7.8	33.46	8.1	24.4	1.88
I25	16 Mar 2020	7	16.49	76.50	7.8	33.46	8.1	24.5	1.80
I25	16 Mar 2020	8	16.49	76.19	7.8	33.46	8.1	24.5	1.70

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I25	16 Mar 2020	9	16.50	74.68	7.7	33.45	8.1	24.4	1.63
	24 Mar 2020	1	17.01	70.23	8.6	33.24	8.2	24.2	0.79
	24 Mar 2020	2	16.95	71.15	8.6	33.27	8.2	24.2	0.81
	24 Mar 2020	3	16.82	74.00	8.6	33.33	8.2	24.3	0.87
	24 Mar 2020	4	16.80	74.97	8.6	33.34	8.2	24.3	0.99
	24 Mar 2020	5	16.76	75.73	8.5	33.36	8.2	24.3	1.15
	24 Mar 2020	6	16.57	76.56	8.4	33.42	8.1	24.4	1.27
	24 Mar 2020	7	16.31	80.54	8.4	33.45	8.1	24.5	1.40
	24 Mar 2020	8	15.64	82.03	8.0	33.51	8.1	24.7	1.65
	24 Mar 2020	9	15.07	82.25	7.6	33.54	8.0	24.8	1.46
I26	05 Mar 2020	1	16.16	78.87	8.4	33.51	8.1	24.6	0.60
	05 Mar 2020	2	16.16	79.19	8.5	33.51	8.1	24.6	0.61
	05 Mar 2020	3	16.16	79.67	8.4	33.51	8.1	24.6	0.62
	05 Mar 2020	4	15.88	79.23	8.2	33.57	8.1	24.7	0.62
	05 Mar 2020	5	15.38	77.75	8.2	33.60	8.1	24.8	0.65
	05 Mar 2020	6	15.15	74.45	8.2	33.54	8.0	24.8	0.77
	05 Mar 2020	7	15.13	73.88	8.1	33.52	8.0	24.8	1.10
	05 Mar 2020	8	15.12	73.77	8.1	33.51	8.0	24.8	1.43
	05 Mar 2020	9	15.13	73.77	8.0	33.51	8.0	24.8	1.55
	09 Mar 2020	1	16.24	83.99	8.1	33.51	8.1	24.5	0.52
I26	09 Mar 2020	2	16.18	83.93	8.1	33.51	8.1	24.6	0.51
	09 Mar 2020	3	16.10	83.68	8.1	33.52	8.1	24.6	0.52
	09 Mar 2020	4	15.95	84.48	8.2	33.54	8.1	24.6	0.55
	09 Mar 2020	5	15.72	85.54	8.1	33.54	8.1	24.7	0.57
	09 Mar 2020	6	15.62	83.81	7.9	33.52	8.1	24.7	0.65
	09 Mar 2020	7	15.48	82.65	7.9	33.53	8.1	24.7	0.71
	09 Mar 2020	8	15.45	81.74	8.0	33.52	8.1	24.7	0.88
	09 Mar 2020	9	15.44	81.69	8.0	33.51	8.1	24.7	1.02
	16 Mar 2020	1	16.78	74.15	8.5	33.36	8.1	24.3	1.63
	16 Mar 2020	2	16.73	74.40	8.4	33.38	8.1	24.3	1.71
I26	16 Mar 2020	3	16.54	75.97	8.2	33.45	8.1	24.4	1.81
	16 Mar 2020	4	16.46	79.09	8.0	33.47	8.1	24.5	1.83
	16 Mar 2020	5	16.45	78.94	7.9	33.46	8.1	24.5	1.68
	16 Mar 2020	6	16.45	78.03	7.9	33.46	8.1	24.5	1.57
	16 Mar 2020	7	16.45	77.34	7.9	33.46	8.1	24.5	1.58
	16 Mar 2020	8	16.45	76.58	7.8	33.46	8.1	24.5	1.67
	16 Mar 2020	9	16.45	75.35	7.9	33.46	8.1	24.5	1.64
	24 Mar 2020	1	17.22	58.35	8.4	33.06	8.1	24.0	0.88
	24 Mar 2020	2	17.20	58.13	8.5	33.06	8.1	24.0	0.94
	24 Mar 2020	3	17.06	59.08	8.5	33.14	8.1	24.1	1.04
I32	05 Mar 2020	4	16.78	64.00	8.5	33.29	8.1	24.3	1.37
	05 Mar 2020	5	15.86	76.17	8.3	33.53	8.1	24.7	1.70
	05 Mar 2020	6	15.55	82.26	8.0	33.49	8.1	24.7	1.86
	05 Mar 2020	7	15.31	82.98	7.7	33.52	8.1	24.8	1.68
	05 Mar 2020	8	15.12	81.95	7.5	33.51	8.0	24.8	1.61
	05 Mar 2020	9	15.10	80.80	7.4	33.50	8.0	24.8	1.55
	09 Mar 2020	1	16.26	75.52	8.2	33.51	8.1	24.5	0.61
	09 Mar 2020	2	16.25	75.67	8.2	33.52	8.1	24.5	0.61
	09 Mar 2020	3	16.24	76.18	8.2	33.52	8.1	24.6	0.63
	09 Mar 2020	4	16.23	76.23	8.3	33.52	8.1	24.6	0.65
I32	05 Mar 2020	5	16.18	72.66	8.2	33.52	8.1	24.6	0.69
	05 Mar 2020	6	16.16	70.70	8.2	33.52	8.1	24.6	0.79
	05 Mar 2020	7	15.96	67.44	8.0	33.57	8.1	24.7	1.03
	05 Mar 2020	8	15.30	53.60	7.6	33.59	8.0	24.8	1.31
	05 Mar 2020	9	15.22	37.64	7.3	33.52	8.0	24.8	2.19

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I32	09 Mar 2020	1	16.23	79.38	8.0	33.49	8.1	24.5	0.66
I32	09 Mar 2020	2	16.21	79.07	8.0	33.50	8.1	24.6	0.63
I32	09 Mar 2020	3	16.17	79.66	8.1	33.51	8.1	24.6	0.62
I32	09 Mar 2020	4	16.12	81.36	8.1	33.52	8.1	24.6	0.68
I32	09 Mar 2020	5	16.02	82.58	8.2	33.53	8.1	24.6	0.75
I32	09 Mar 2020	6	15.80	83.18	8.2	33.54	8.1	24.7	0.87
I32	09 Mar 2020	7	15.69	83.75	8.2	33.53	8.1	24.7	1.00
I32	09 Mar 2020	8	15.62	83.16	8.2	33.53	8.1	24.7	1.10
I32	09 Mar 2020	9	15.45	81.81	8.0	33.54	8.1	24.7	1.22
I32	09 Mar 2020	10	15.26	76.62	7.9	33.54	8.1	24.8	1.48
I32	16 Mar 2020	1	16.83	59.81	8.4	33.31	8.1	24.3	3.18
I32	16 Mar 2020	2	16.84	60.20	8.4	33.31	8.1	24.3	3.26
I32	16 Mar 2020	3	16.80	60.48	8.4	33.32	8.1	24.3	3.42
I32	16 Mar 2020	4	16.66	59.21	8.1	33.36	8.1	24.3	4.05
I32	16 Mar 2020	5	16.59	54.93	7.8	33.38	8.1	24.4	4.72
I32	16 Mar 2020	6	16.59	53.61	7.8	33.40	8.1	24.4	4.84
I32	16 Mar 2020	7	16.53	62.72	7.6	33.43	8.1	24.4	4.62
I32	16 Mar 2020	8	16.50	60.33	7.4	33.42	8.0	24.4	4.21
I32	16 Mar 2020	9	16.45	45.29	7.1	33.43	8.0	24.4	3.39
I32	24 Mar 2020	1	16.66	40.92	8.2	33.21	8.1	24.2	1.71
I32	24 Mar 2020	2	16.49	40.78	8.3	33.28	8.1	24.3	1.65
I32	24 Mar 2020	3	16.04	45.84	8.2	33.46	8.1	24.6	2.01
I32	24 Mar 2020	4	15.77	64.50	8.1	33.47	8.1	24.6	2.48
I32	24 Mar 2020	5	15.58	78.27	7.9	33.49	8.1	24.7	2.46
I32	24 Mar 2020	6	15.50	72.48	7.6	33.48	8.1	24.7	2.58
I32	24 Mar 2020	7	15.48	68.07	7.6	33.48	8.1	24.7	2.67
I32	24 Mar 2020	8	15.45	59.71	7.5	33.48	8.0	24.7	2.86
I32	24 Mar 2020	9	15.44	66.62	7.5	33.48	8.1	24.7	3.11
I32	24 Mar 2020	10	15.43	63.33	7.4	33.48	8.0	24.7	3.03
I39	05 Mar 2020	1	15.99	79.57	8.8	33.50	8.1	24.6	0.78
I39	05 Mar 2020	2	15.98	79.46	8.8	33.50	8.1	24.6	0.81
I39	05 Mar 2020	3	15.96	79.50	8.7	33.50	8.1	24.6	0.83
I39	05 Mar 2020	4	15.90	79.53	8.7	33.51	8.1	24.6	0.88
I39	05 Mar 2020	5	15.85	79.54	8.7	33.51	8.1	24.6	1.02
I39	05 Mar 2020	6	15.83	79.86	8.6	33.50	8.1	24.6	1.18
I39	05 Mar 2020	7	15.79	79.68	8.6	33.51	8.1	24.6	1.43
I39	05 Mar 2020	8	15.76	80.92	8.5	33.51	8.1	24.7	1.72
I39	05 Mar 2020	9	15.71	82.54	8.4	33.50	8.1	24.7	1.92
I39	05 Mar 2020	10	15.66	82.35	8.4	33.51	8.1	24.7	2.07
I39	05 Mar 2020	11	15.27	82.93	8.4	33.49	8.1	24.7	2.26
I39	05 Mar 2020	12	15.27	82.55	8.4	33.46	8.1	24.7	2.92
I39	05 Mar 2020	13	15.20	83.22	8.3	33.47	8.1	24.8	3.35
I39	05 Mar 2020	14	15.07	84.78	8.3	33.48	8.1	24.8	3.40
I39	05 Mar 2020	15	14.99	84.58	8.2	33.49	8.1	24.8	3.23
I39	05 Mar 2020	16	14.84	83.76	8.1	33.51	8.0	24.9	3.02
I39	05 Mar 2020	17	14.82	83.20	8.1	33.52	8.0	24.9	2.68
I39	05 Mar 2020	18	14.80	83.14	8.1	33.52	8.0	24.9	2.44
I39	09 Mar 2020	1	16.01	85.66	7.8	33.49	8.1	24.6	0.82
I39	09 Mar 2020	2	16.01	85.59	7.9	33.49	8.1	24.6	0.86
I39	09 Mar 2020	3	16.01	85.58	7.9	33.50	8.1	24.6	0.76
I39	09 Mar 2020	4	16.01	85.64	8.0	33.50	8.1	24.6	0.73
I39	09 Mar 2020	5	16.01	85.73	8.0	33.50	8.1	24.6	0.75
I39	09 Mar 2020	6	16.00	85.74	8.0	33.51	8.1	24.6	0.80
I39	09 Mar 2020	7	15.99	85.90	8.0	33.51	8.1	24.6	0.87
I39	09 Mar 2020	8	15.97	85.96	8.1	33.51	8.1	24.6	0.89
I39	09 Mar 2020	9	15.95	86.17	8.1	33.52	8.1	24.6	0.95

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I39	09 Mar 2020	10	15.91	86.47	8.1	33.53	8.1	24.6	1.01
I39	09 Mar 2020	11	15.83	86.65	8.1	33.54	8.1	24.7	1.08
I39	09 Mar 2020	12	15.56	86.46	8.1	33.59	8.1	24.8	1.23
I39	09 Mar 2020	13	14.84	85.78	8.0	33.66	8.1	25.0	1.58
I39	09 Mar 2020	14	14.46	84.64	7.8	33.57	8.0	25.0	2.11
I39	09 Mar 2020	15	14.26	83.64	7.6	33.57	8.0	25.0	2.77
I39	09 Mar 2020	16	14.08	82.76	7.4	33.56	8.0	25.1	3.35
I39	09 Mar 2020	17	14.03	82.06	7.2	33.53	8.0	25.0	3.64
I39	09 Mar 2020	18	14.02	81.90	7.1	33.53	8.0	25.0	3.54
I39	16 Mar 2020	1	16.75	67.00	8.4	33.23	8.1	24.2	3.35
I39	16 Mar 2020	2	16.72	66.77	8.4	33.30	8.1	24.3	3.38
I39	16 Mar 2020	3	16.57	68.17	8.4	33.44	8.1	24.4	3.48
I39	16 Mar 2020	4	16.51	75.35	8.2	33.47	8.1	24.5	2.76
I39	16 Mar 2020	5	16.45	83.06	8.2	33.49	8.1	24.5	1.88
I39	16 Mar 2020	6	16.37	85.73	8.1	33.50	8.1	24.5	1.66
I39	16 Mar 2020	7	16.32	85.42	8.2	33.50	8.1	24.5	2.12
I39	16 Mar 2020	8	16.24	84.61	8.2	33.50	8.1	24.5	2.75
I39	16 Mar 2020	9	16.21	84.34	8.2	33.49	8.1	24.5	3.04
I39	16 Mar 2020	10	16.21	84.64	8.2	33.49	8.1	24.5	3.20
I39	16 Mar 2020	11	16.20	85.43	8.2	33.49	8.1	24.5	3.03
I39	16 Mar 2020	12	16.15	86.14	8.0	33.50	8.1	24.6	2.56
I39	16 Mar 2020	13	16.11	86.63	7.9	33.50	8.0	24.6	2.07
I39	16 Mar 2020	14	16.07	86.73	7.8	33.50	8.0	24.6	1.73
I39	16 Mar 2020	15	16.01	85.72	7.8	33.51	8.0	24.6	2.04
I39	16 Mar 2020	16	15.93	84.75	7.7	33.51	8.0	24.6	2.68
I39	16 Mar 2020	17	15.84	84.56	7.7	33.51	8.0	24.6	2.86
I39	16 Mar 2020	18	15.82	85.11	7.7	33.51	8.0	24.6	2.84
I39	24 Mar 2020	1	16.67	76.06	8.3	33.18	8.1	24.2	0.77
I39	24 Mar 2020	2	16.54	76.33	8.3	33.28	8.1	24.3	0.79
I39	24 Mar 2020	3	16.37	79.11	8.3	33.40	8.1	24.4	0.80
I39	24 Mar 2020	4	16.32	83.28	8.3	33.42	8.1	24.5	0.81
I39	24 Mar 2020	5	16.30	84.59	8.3	33.43	8.1	24.5	0.91
I39	24 Mar 2020	6	16.26	84.97	8.3	33.45	8.1	24.5	0.97
I39	24 Mar 2020	7	16.23	85.56	8.4	33.45	8.1	24.5	1.06
I39	24 Mar 2020	8	16.11	86.16	8.3	33.47	8.1	24.5	1.05
I39	24 Mar 2020	9	16.13	86.72	8.3	33.46	8.1	24.5	1.16
I39	24 Mar 2020	10	16.10	86.86	8.3	33.47	8.1	24.5	1.21
I39	24 Mar 2020	11	16.06	86.78	8.3	33.47	8.1	24.6	1.26
I39	24 Mar 2020	12	16.03	86.93	8.3	33.47	8.1	24.6	1.39
I39	24 Mar 2020	13	15.98	86.96	8.3	33.47	8.1	24.6	1.50
I39	24 Mar 2020	14	15.93	87.00	8.2	33.47	8.1	24.6	1.49
I39	24 Mar 2020	15	15.86	86.89	8.2	33.47	8.1	24.6	1.56
I39	24 Mar 2020	16	15.82	86.91	8.2	33.46	8.1	24.6	1.59
I39	24 Mar 2020	17	15.81	86.98	8.2	33.46	8.1	24.6	1.69
I39	24 Mar 2020	18	15.74	86.88	8.0	33.47	8.1	24.6	1.70
I40	05 Mar 2020	1	16.12	69.20	5.8	33.39	8.1	24.5	1.08
I40	05 Mar 2020	2	16.12	69.06	6.3	33.45	8.1	24.5	0.92
I40	05 Mar 2020	3	16.09	68.66	7.3	33.50	8.1	24.6	0.97
I40	05 Mar 2020	4	16.09	68.67	7.6	33.51	8.1	24.6	1.04
I40	05 Mar 2020	5	15.90	69.55	7.6	33.60	8.0	24.7	1.19
I40	05 Mar 2020	6	15.51	75.82	7.6	33.69	8.0	24.8	1.34
I40	05 Mar 2020	7	15.14	72.86	7.4	33.62	8.0	24.9	1.28
I40	05 Mar 2020	8	15.00	68.19	7.3	33.61	8.0	24.9	1.21
I40	05 Mar 2020	9	14.88	52.11	7.1	33.56	8.0	24.9	0.81
I40	09 Mar 2020	1	16.32	77.41	8.0	33.44	8.1	24.5	1.05
I40	09 Mar 2020	2	16.31	77.24	8.0	33.46	8.1	24.5	1.07
I40	09 Mar 2020	3	16.28	77.32	8.0	33.47	8.1	24.5	1.08

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma-t$)	Chlor ($\mu\text{g/L}$)
I40	09 Mar 2020	4	16.23	77.53	8.0	33.49	8.1	24.5	1.17
I40	09 Mar 2020	5	16.06	78.19	8.0	33.52	8.1	24.6	1.40
I40	09 Mar 2020	6	15.52	75.35	7.9	33.58	8.1	24.8	1.76
I40	09 Mar 2020	7	15.16	64.08	7.8	33.56	8.0	24.8	1.94
I40	09 Mar 2020	8	14.79	60.83	7.4	33.57	8.0	24.9	2.21
I40	09 Mar 2020	9	14.65	41.70	6.9	33.53	8.0	24.9	2.82
I40	09 Mar 2020	10	14.63	24.85	6.6	33.52	8.0	24.9	3.60
I40	16 Mar 2020	1	16.79	57.90	8.7	33.24	8.1	24.2	3.62
I40	16 Mar 2020	2	16.77	58.99	8.6	33.31	8.1	24.3	3.89
I40	16 Mar 2020	3	16.74	62.87	8.4	33.39	8.1	24.3	4.79
I40	16 Mar 2020	4	16.71	67.64	8.1	33.39	8.1	24.3	4.63
I40	16 Mar 2020	5	16.65	69.85	7.8	33.41	8.1	24.4	3.91
I40	16 Mar 2020	6	16.59	72.45	7.5	33.43	8.0	24.4	3.01
I40	16 Mar 2020	7	16.56	73.26	7.5	33.44	8.0	24.4	2.29
I40	16 Mar 2020	8	16.51	73.53	7.5	33.45	8.0	24.4	1.96
I40	16 Mar 2020	9	16.47	70.07	7.5	33.46	8.0	24.5	1.72
I40	16 Mar 2020	10	16.44	60.56	7.5	33.47	8.0	24.5	1.68
I40	24 Mar 2020	1	17.23	59.07	8.3	33.37	8.1	24.2	0.83
I40	24 Mar 2020	2	17.08	58.64	8.2	33.39	8.1	24.3	0.88
I40	24 Mar 2020	3	16.91	57.89	8.3	33.40	8.1	24.3	1.06
I40	24 Mar 2020	4	16.75	55.26	8.3	33.41	8.1	24.4	1.66
I40	24 Mar 2020	5	16.55	51.56	8.2	33.41	8.1	24.4	3.26
I40	24 Mar 2020	6	16.31	53.01	7.5	33.43	8.1	24.5	5.30
I40	24 Mar 2020	7	15.90	51.45	6.6	33.50	8.0	24.6	5.59
I40	24 Mar 2020	8	15.64	36.96	6.2	33.49	8.0	24.7	4.79
I40	24 Mar 2020	9	15.46	40.67	6.1	33.50	8.0	24.7	4.04
I40	24 Mar 2020	10	15.43	28.23	6.1	33.49	7.9	24.7	3.60

NA = not available

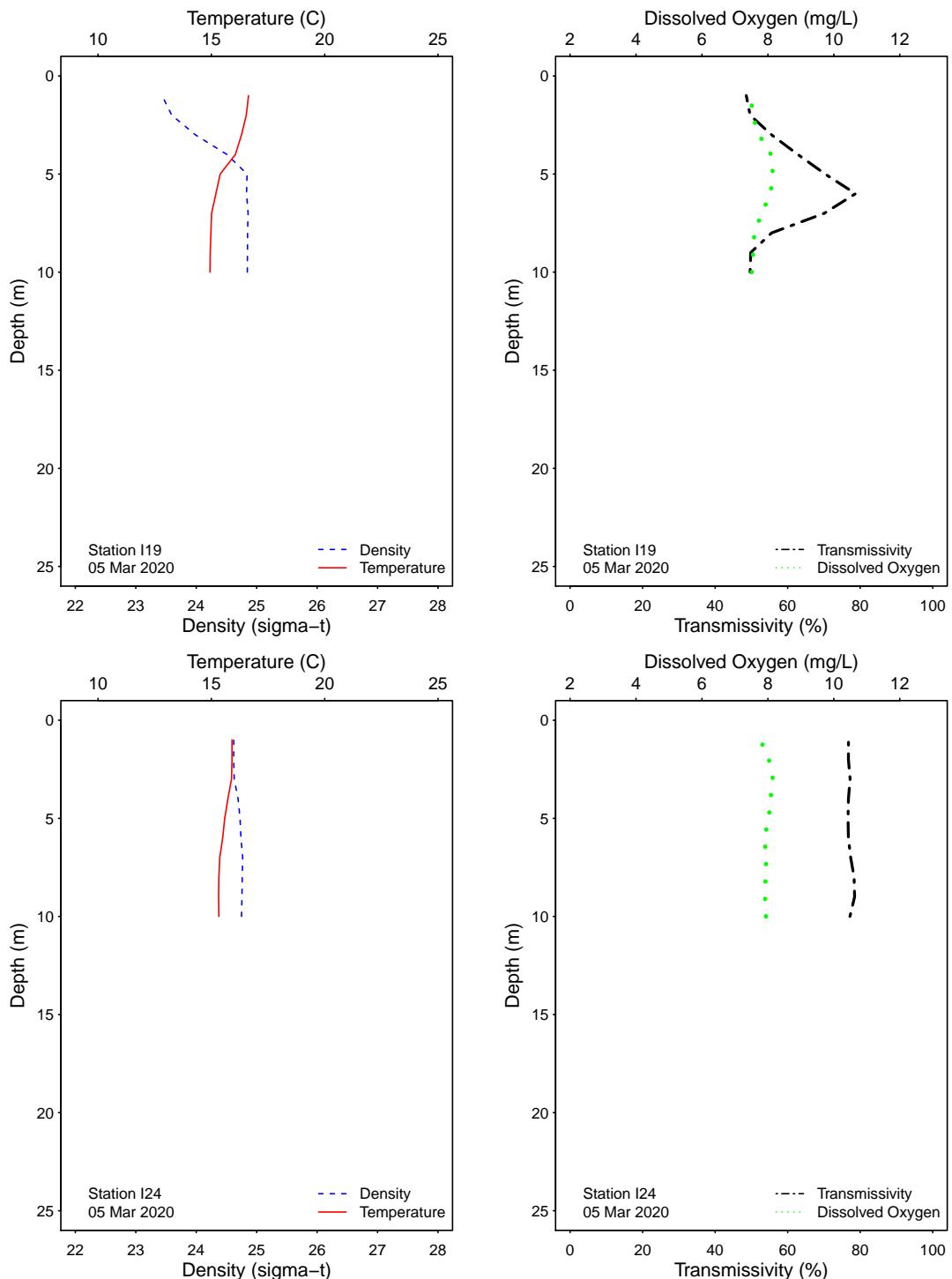


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

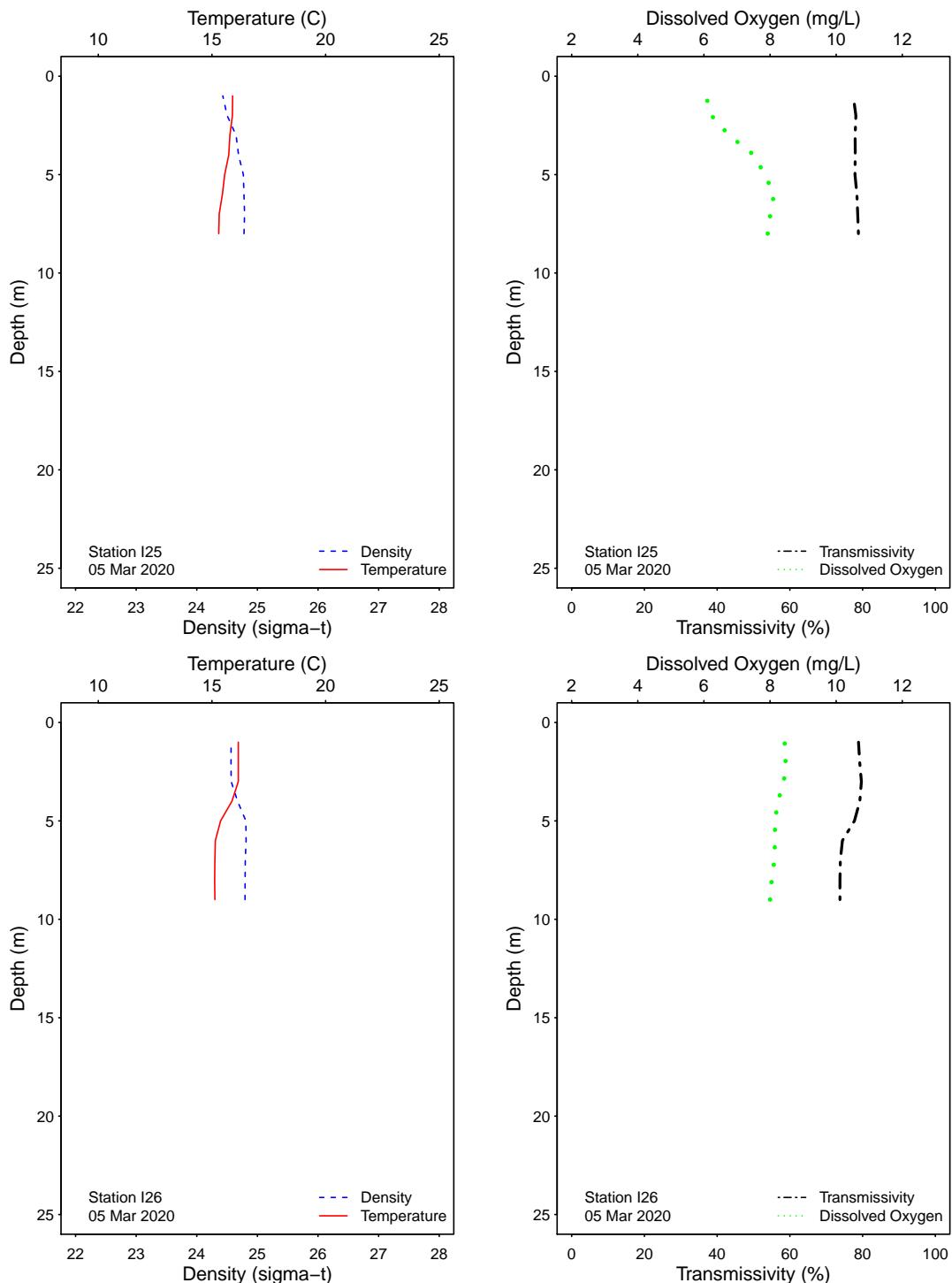


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

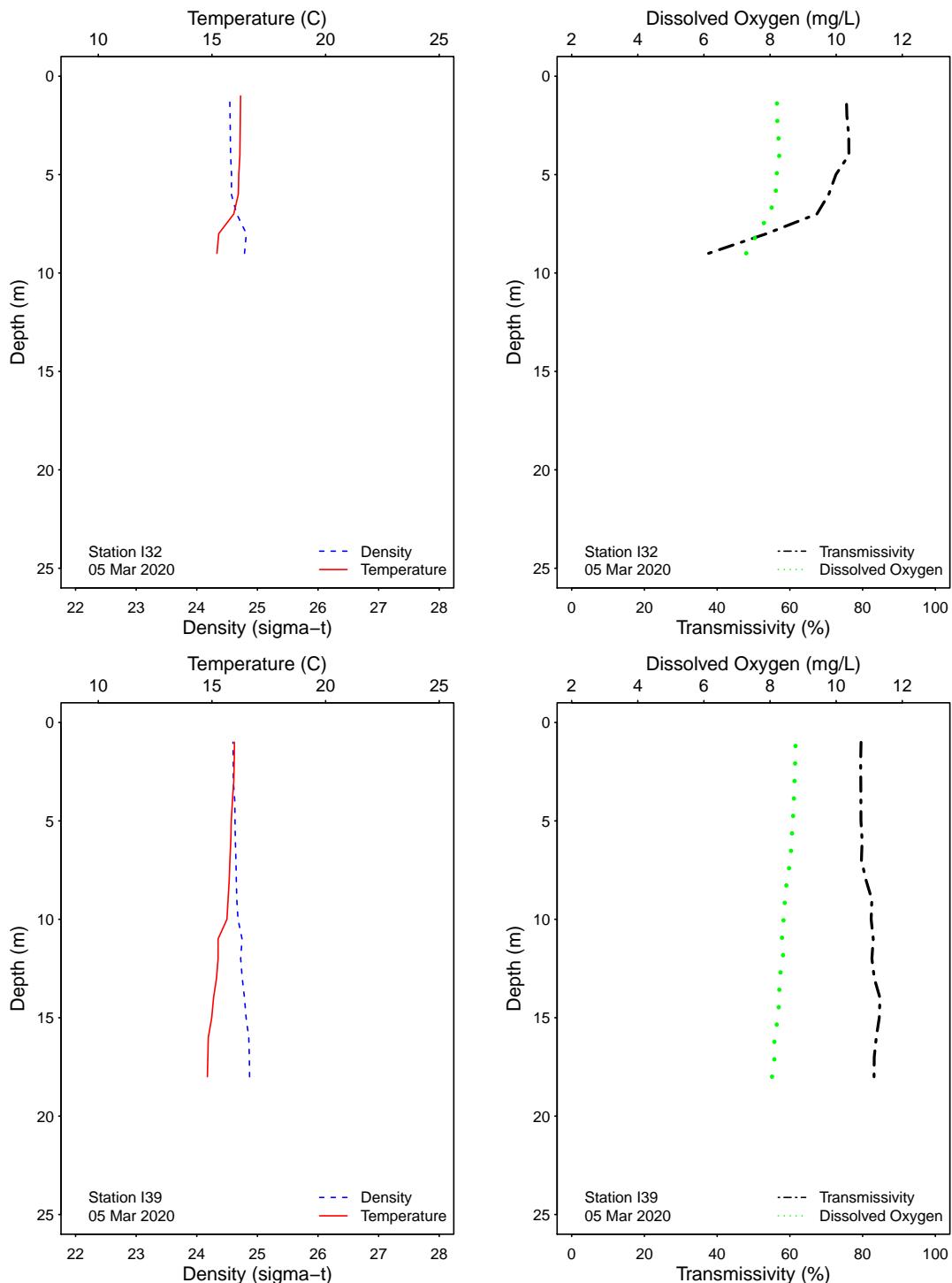


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

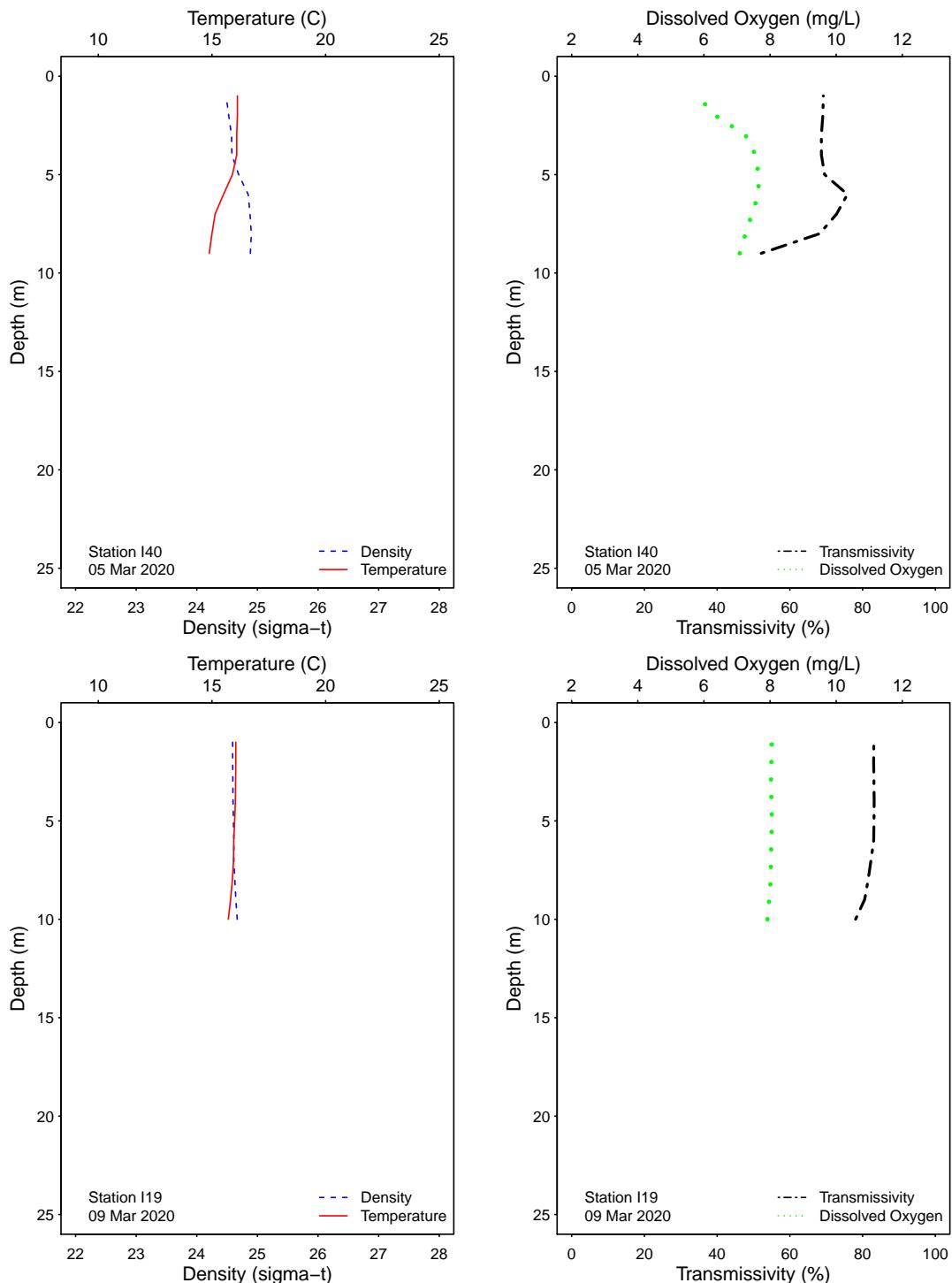


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

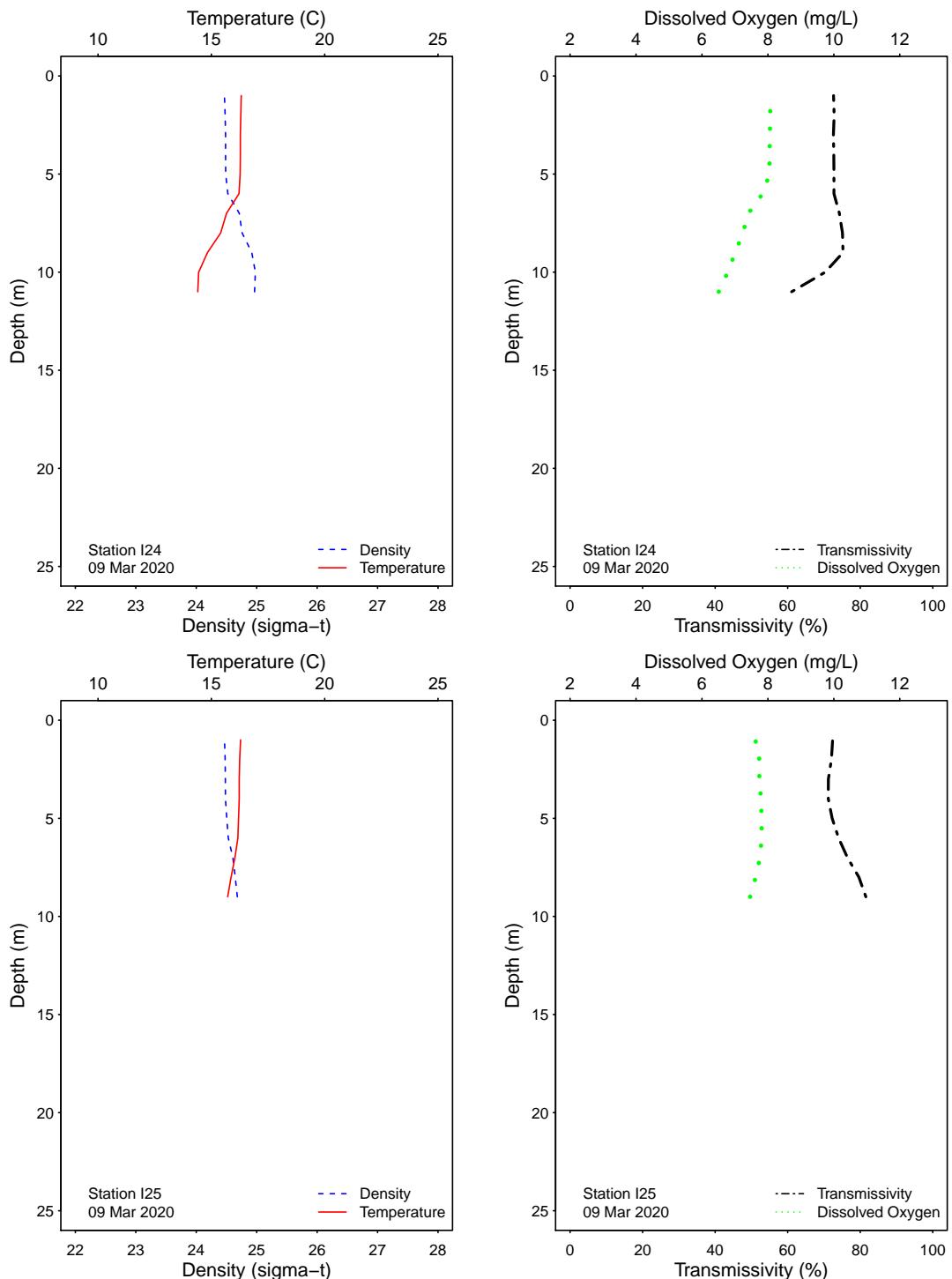


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

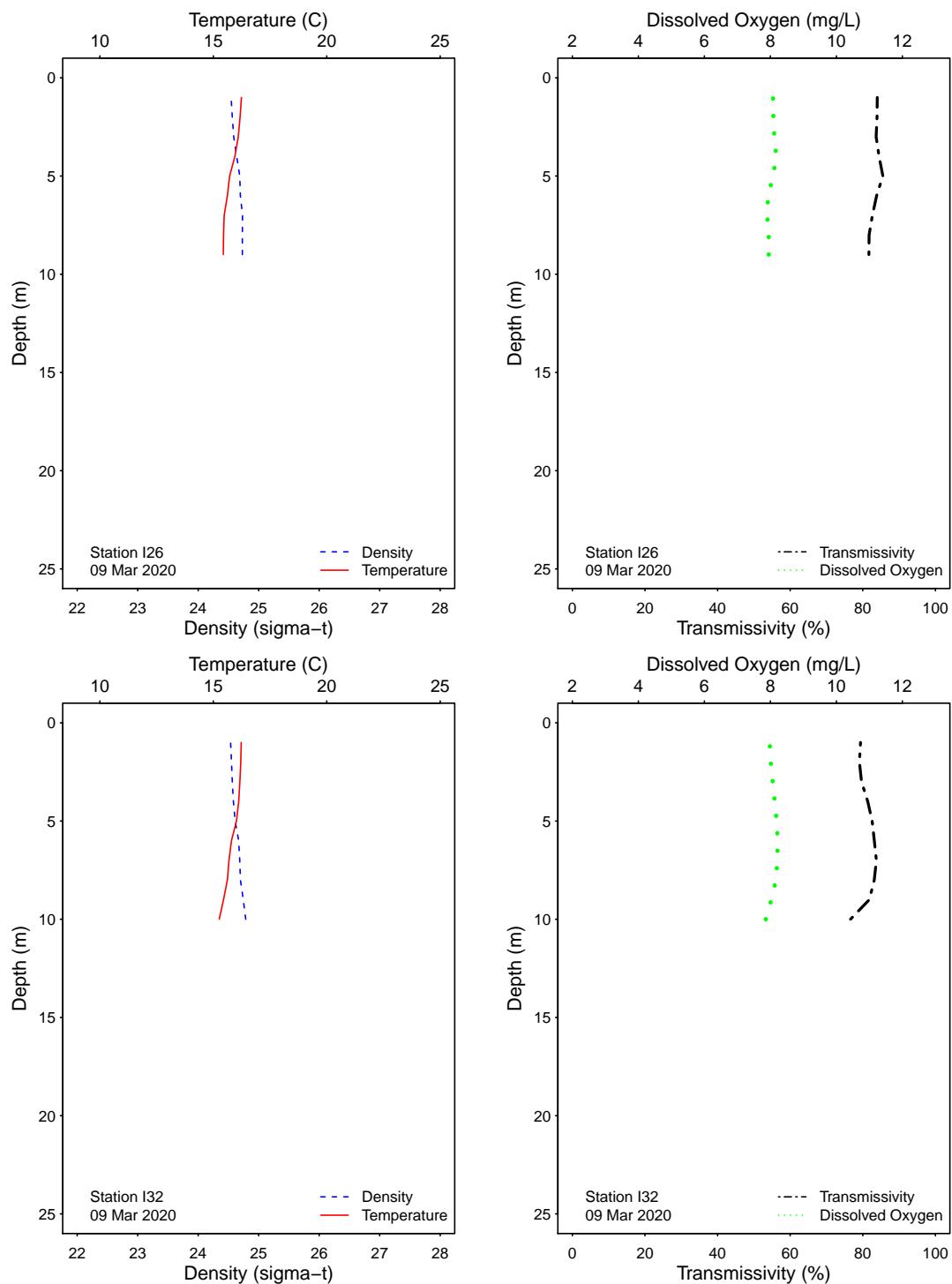


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

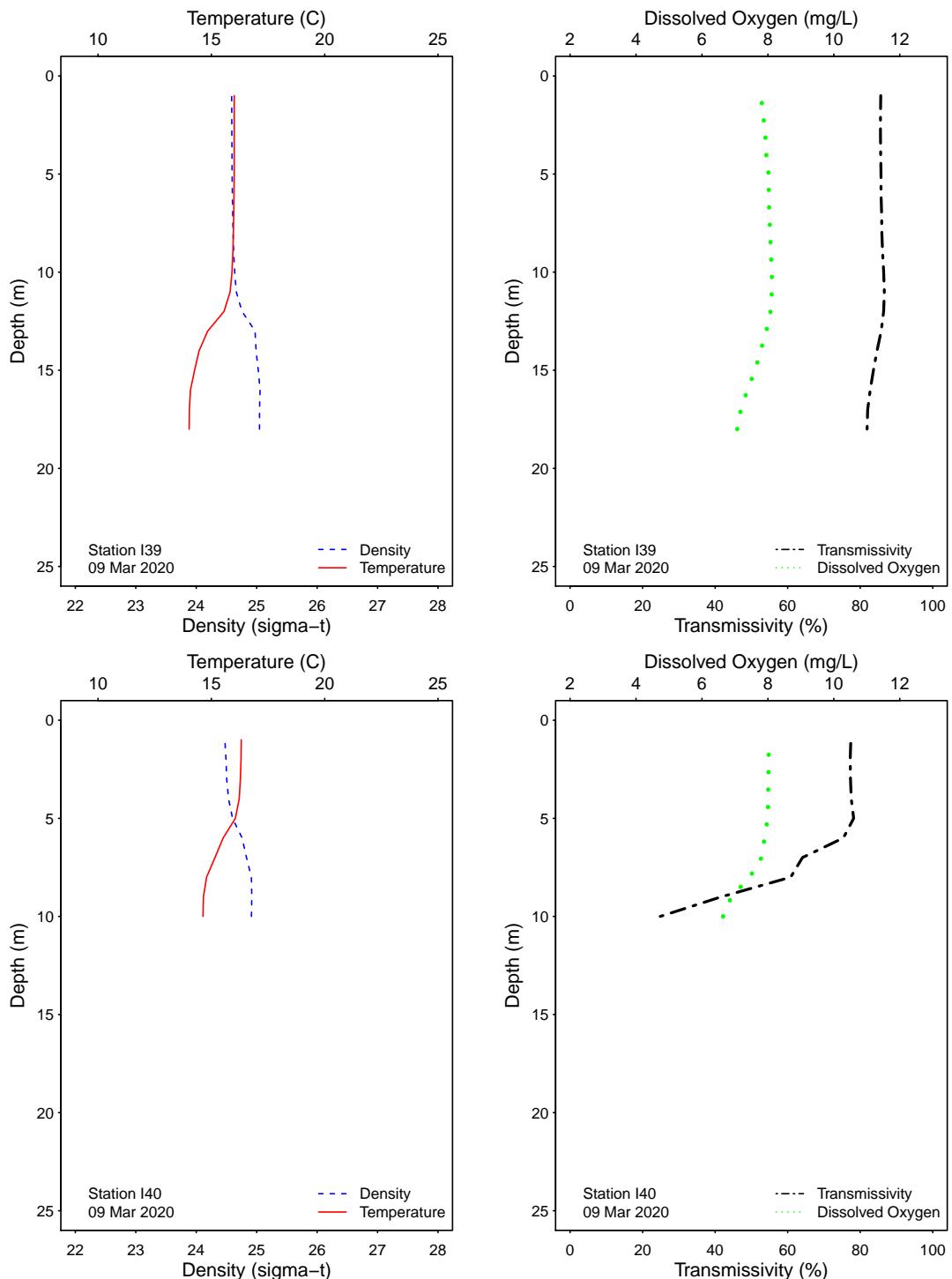


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

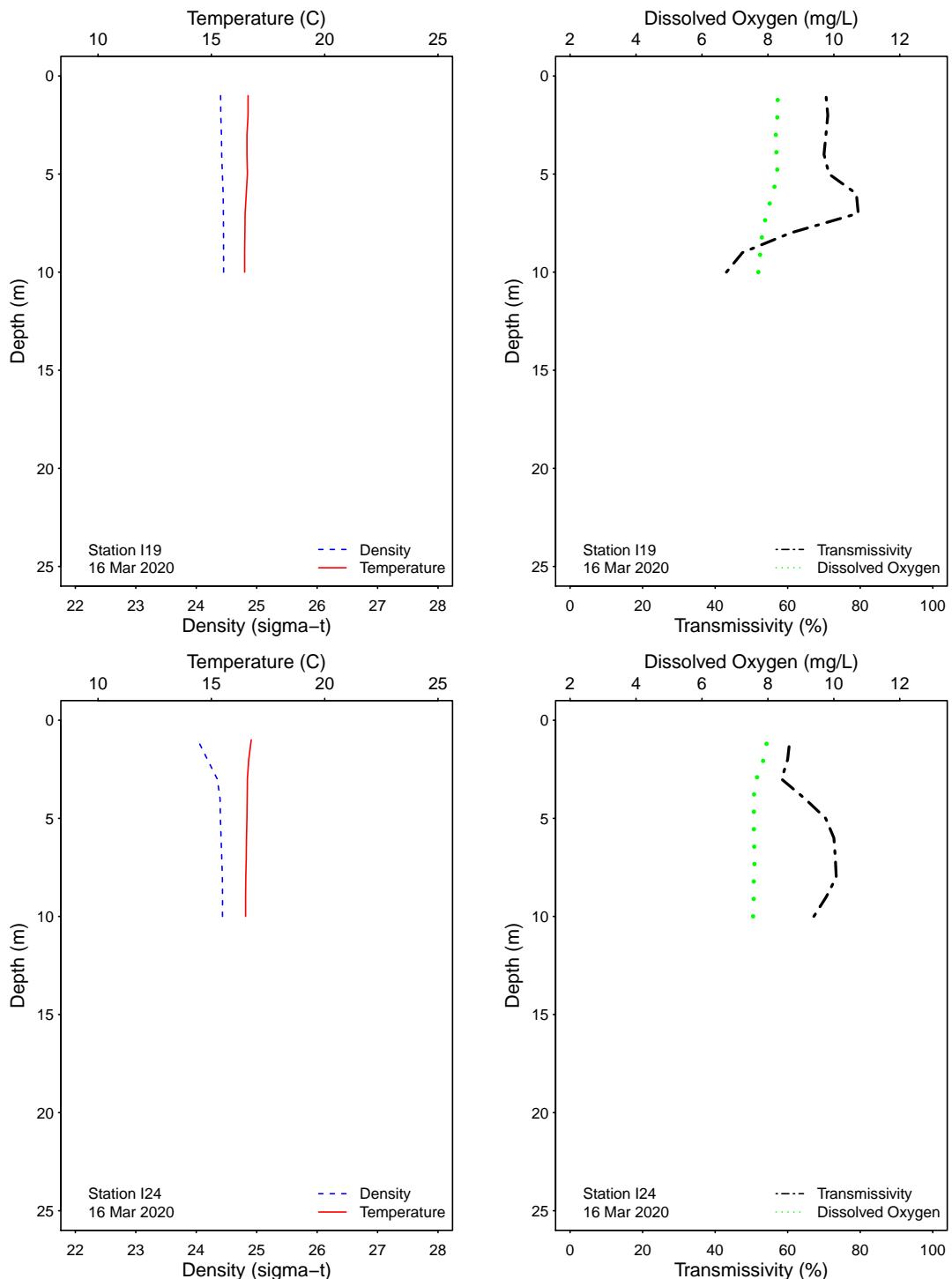


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

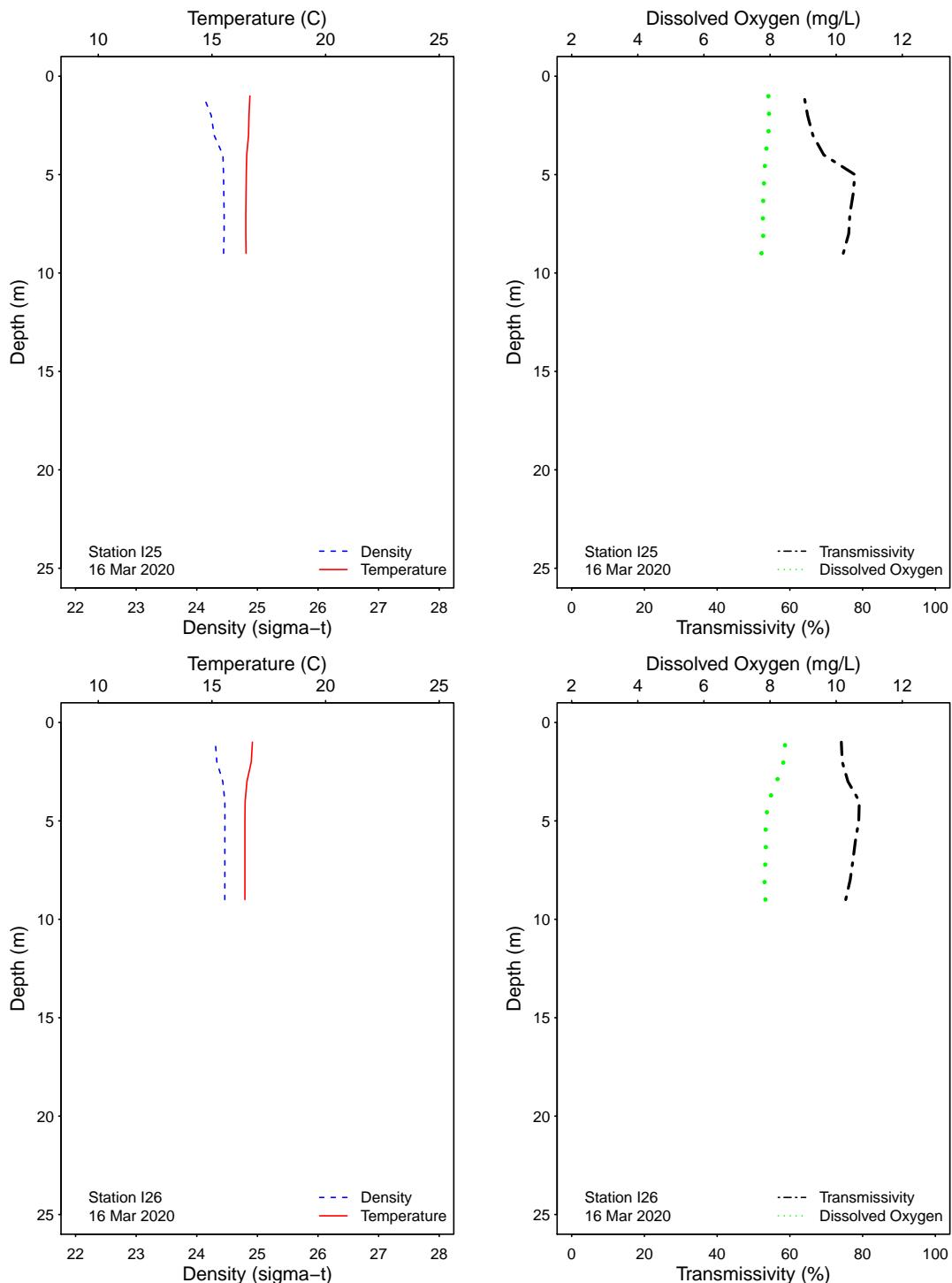


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

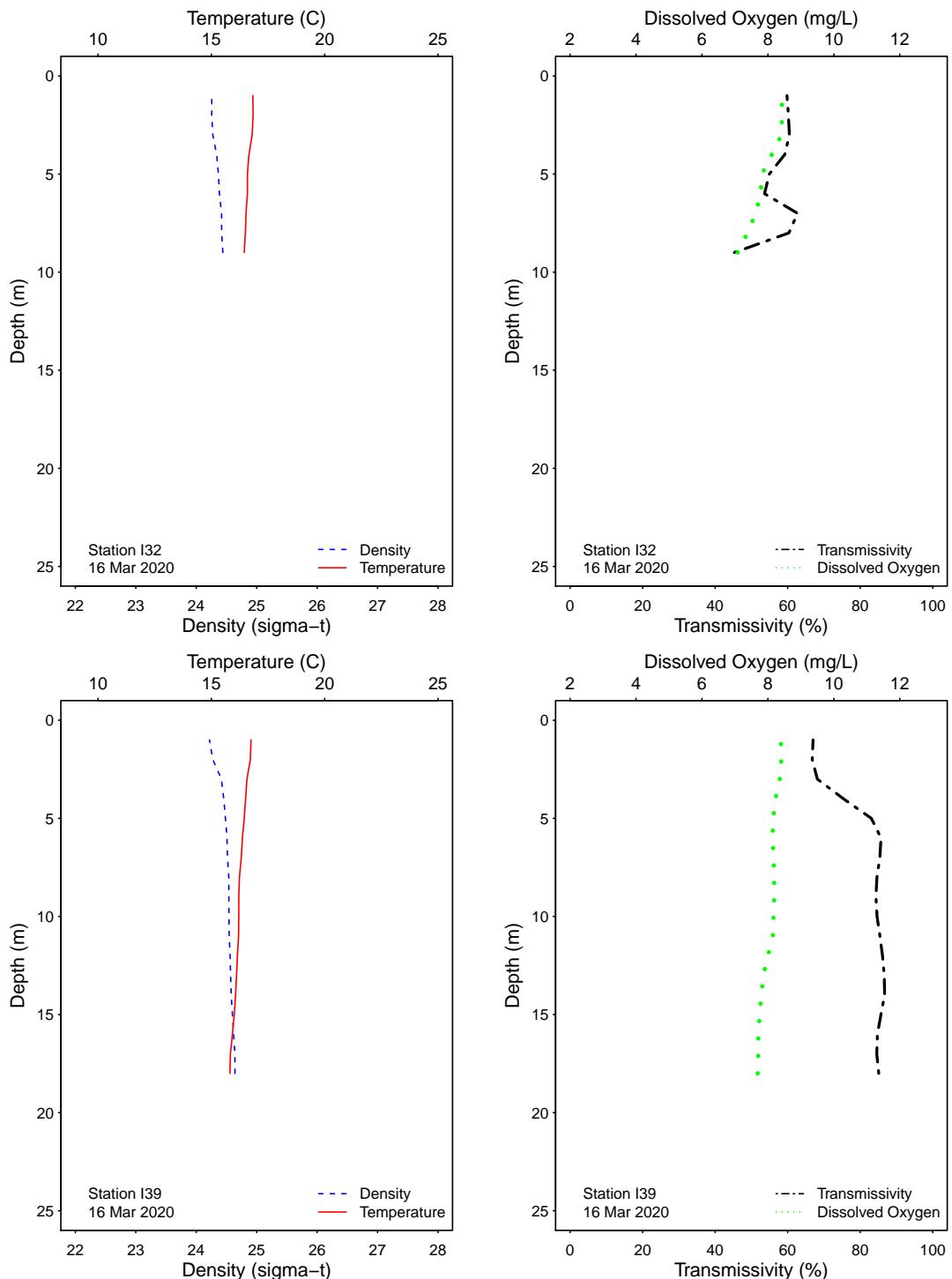


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

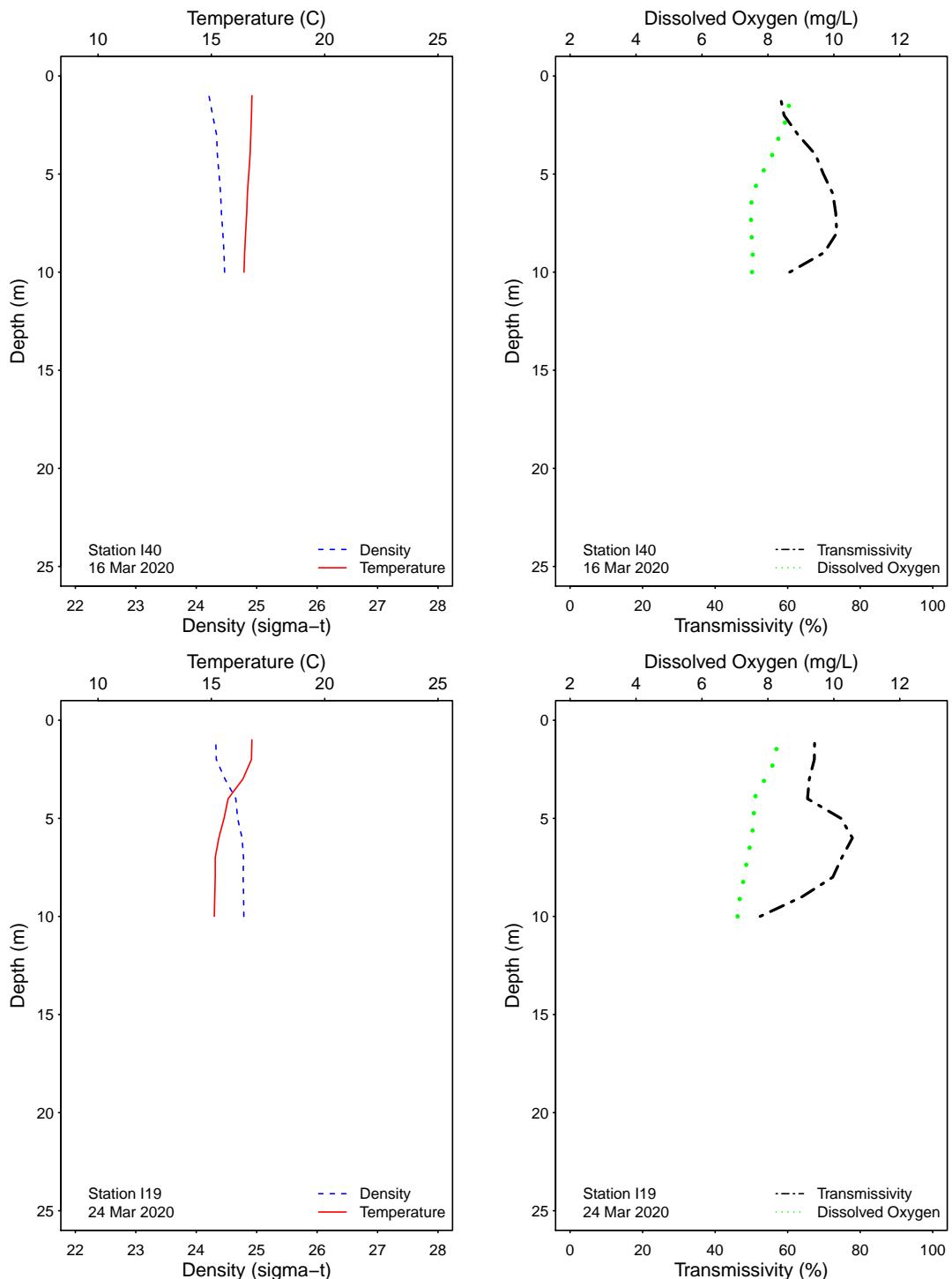


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

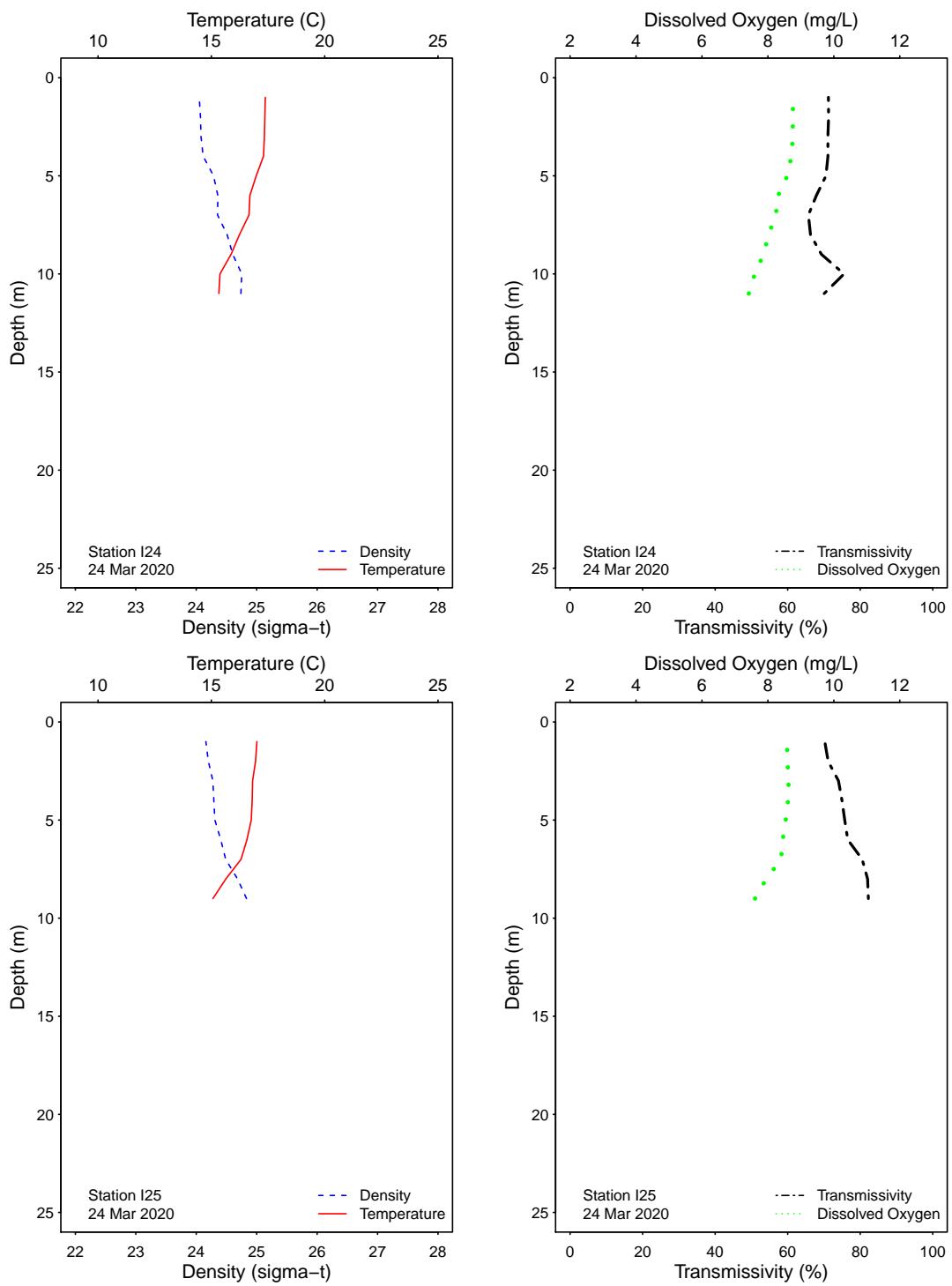


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

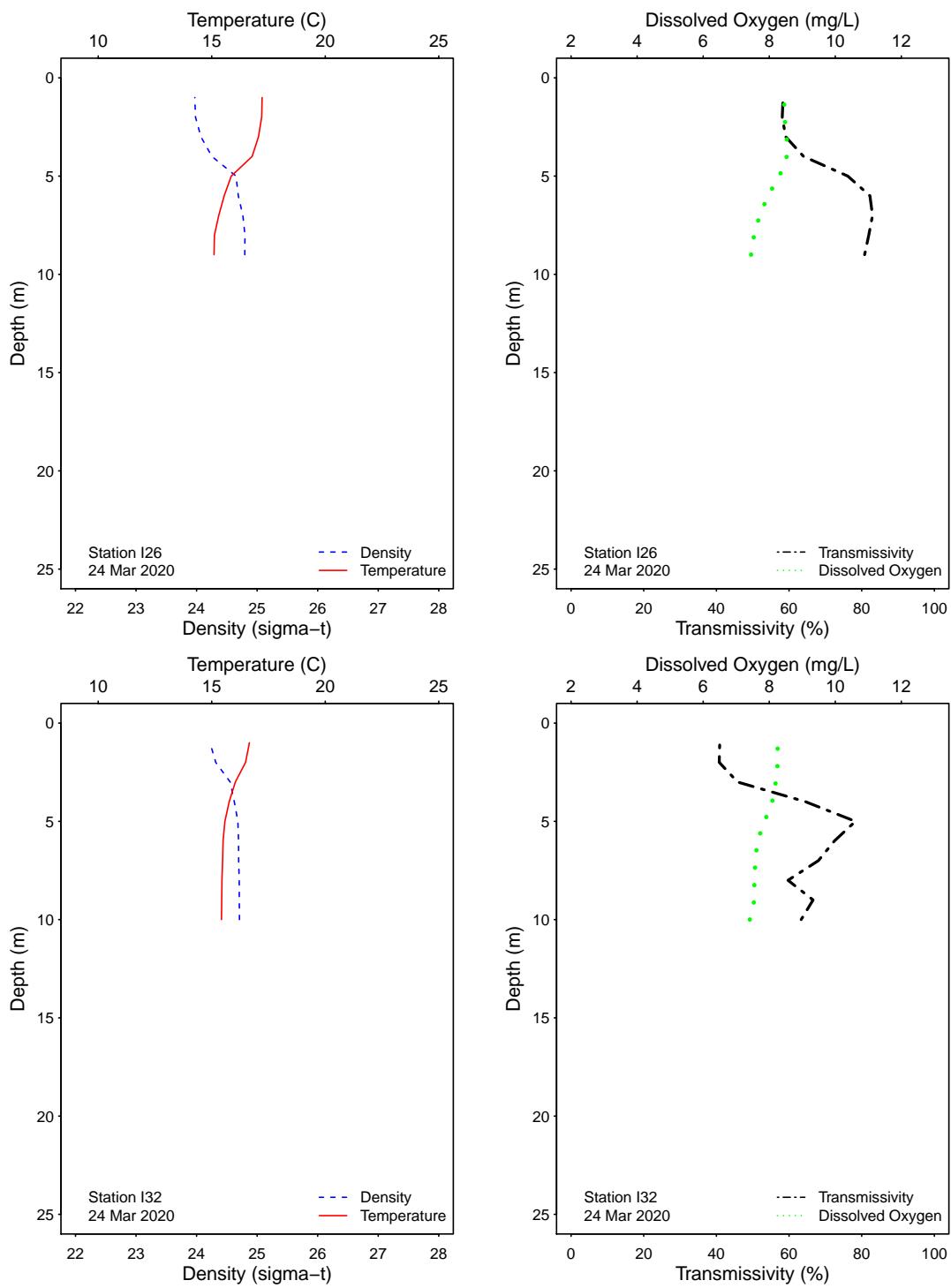


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

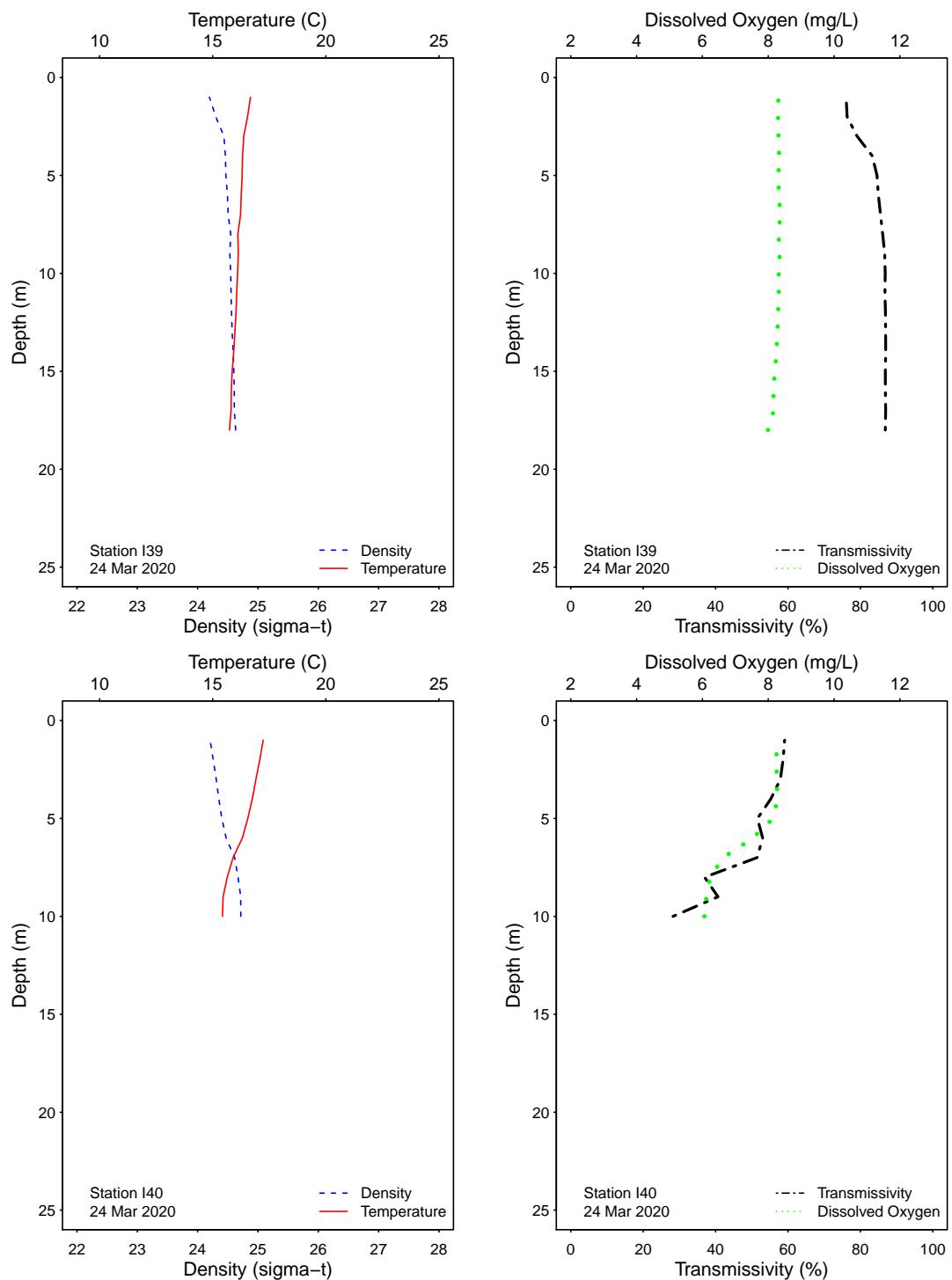


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

APPENDIX A

Quality Assurance

Table A.1

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

Station	Date	Depth	Analyst	Procedure	Total	Fecal	Entero
I19	05 Mar 2020	6	JF	LAB DUPLICATE	>16000	1400e	360e
I19	09 Mar 2020	6	AE	LAB DUPLICATE	<20	6e	<2
I19	16 Mar 2020	6	JF	LAB DUPLICATE	22e	<2	<2
I19	24 Mar 2020	6	BS	LAB DUPLICATE	20e	4e	4e
I40	05 Mar 2020	6	AE	LAB DUPLICATE	10e	<2	<2
I40	09 Mar 2020	6	AE	LAB DUPLICATE	60e	28e	6e
I40	16 Mar 2020	6	JF	LAB DUPLICATE	1800e	420	28e
I40	24 Mar 2020	6	BS	LAB DUPLICATE	10000	320e	22e
S12	03 Mar 2020		BS	FIELD DUPLICATE	<2	<2	2e
S12	03 Mar 2020		BS	LAB DUPLICATE	<2	<2	4e
S12	10 Mar 2020		JF	FIELD DUPLICATE	>16000	>12000	>12000
S12	10 Mar 2020		JF	LAB DUPLICATE	>16000	>12000	>12000
S12	17 Mar 2020		JF	FIELD DUPLICATE	11000	2000e	520
S12	17 Mar 2020		JF	LAB DUPLICATE	>16000	2800e	380e
S12	24 Mar 2020		JF	FIELD DUPLICATE	>16000	7600	1400e
S12	24 Mar 2020		JF	LAB DUPLICATE	>16000	7400	2200e
S12	30 Mar 2020		BS	FIELD DUPLICATE	<20	<20	<2
S12	30 Mar 2020		BS	LAB DUPLICATE	<20	<2	2e

ns = not sampled

ND = no data

