



SOUTH BAY OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT

SOUTH BAY WATER RECLAMATION PLANT

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

APRIL 2020

Environmental Monitoring and Technical Services
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May 31, 2020

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

Attention: POTW Compliance Unit

Dear Mr. Gibson:

Enclosed is the April 2020 Monthly Receiving Waters Monitoring Report for the South Bay Ocean Outfall, South Bay Water Reclamation Plant as required per Order No. R9-2013-0006 as amended by Order Nos. R9-2014-0071 and R9-2017-0023, NPDES Permit No. CA0109045.

This report includes raw ocean monitoring data and summaries of water quality parameters and ocean conditions measured during the month for the South Bay outfall region. Also included are summaries of compliance with the bacterial water-contact standards specified in the California Ocean Plan. These data are also presented in the monthly report submitted by the International Boundary and Water Commission, U.S. Section for discharge from the South Bay International Wastewater Treatment Plant (Order No. R9-2014-0009 as amended by Order Nos. R9-2014-0094, R9-2017-0024, R9-2019-0012, NPDES Permit No. CA0108928).

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

Sincerely,



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

RK/rg

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

INTRODUCTION

Monthly reports of water quality and ocean conditions from Playa Blanco, Mexico to Coronado, USA are submitted to the San Diego Regional Water Quality Control Board and U.S. EPA Region 9 in accordance with Order No. R9-2013-0006 as amended by Order Nos. R9-2014-0071 and R9-2017-0023, NPDES Permit No. CA0109045, for the South Bay Water Reclamation Plant (SBWRP), South Bay Ocean Outfall (SBOO). This report includes receiving waters monitoring data collected from all shore, kelp and offshore stations specified in the above order. Data for influent and effluent monitoring activities for the SBWRP are presented in separate reports.

MATERIALS AND METHODS

Shore Stations

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

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

Kelp Bed Stations

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

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

Seawater samples at the kelp bed stations are primarily collected using a CTD-integrated rosette sampler with Niskin bottles. Aliquots for bacteriological analyses were drawn from these bottles into sterile sample bottles for processing at the City's Marine Microbiology Laboratory. Water column profiles of the various physical/chemical parameters were taken using a CTD. The CTD collected these physical/chemical data at a rate ≥ 4 scans per second. The data were then internally

averaged using the CTD proprietary software, 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 chromomorphonic 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.
- Due COVID-19 beach closure, station S8 was not accessible for sampling on April 9, and 10.
- During April, 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:
 - The 30-day geometric mean standard for total coliform was exceeded at stations S4, S5, S6, S10, S11, and S12.
 - The 30-day geometric mean standards for fecal coliform and *Enterococcus* were exceeded at stations S4, S5, S6, S8, S9, S10, S11, and S12.

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

- The single sample maximum (SSM) standards for total coliform, fecal coliform, and *Enterococcus* were 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, S9, 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 from stations S0, S2, and S3 on one or more days during April.
- Notable observations included a sewage-like odor at stations S4–S6, and stations S9–S12 on one or more days during April.
- Historical analyses of Ocean Plan compliance rates for the South Bay outfall shore and kelp monitoring stations, combined with the results of satellite imagery data, suggest that outflows from the Tijuana River and Los Buenos Creek, as well as surface runoff during or after rain events (storms), are likely to be the cause of impacted water quality along the shore and in near shore recreational waters in the South Bay region. See the City of San Diego’s most recent *Biennial Receiving Waters Monitoring and Assessment Report for the Point Loma and South Bay Ocean Outfalls* for details (<https://www.sandiego.gov/public-utilities/sustainability/ocean-monitoring/reports>).

➤ **Kelp Bed Water Quality Sampling**

- The seven kelp bed water quality stations (I19, I24, I25, I26, I32, I39, I40) were sampled on April 1, 10, 14, 21, and 28.
- Six of 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 stations I19, I24, I32, and I40.
 - The 30-day geometric mean standard for *Enterococcus* was exceeded at stations I19, I24, I25, I26, I32, and I40.
 - The SSM standards for total and fecal coliform were exceeded at stations I19, I24, I26, I32, and I40.
 - The SSM standard for *Enterococcus* was exceeded at stations I19, I24, I25, I26, I32, and I40.
 - The SSM standard that states total coliform density shall not exceed 1,000 per 100 mL when the fecal:total ratio exceeds 0.1 was exceeded at stations I19, I24, I26, I32, and I40.
- Water column temperatures ranged from 11.29 to 20.89°C. The difference between surface and bottom waters ranged from 0 to 7.19°C.
- Concentrations of chlorophyll *a* ranged from 0.51 to 62.31 µg/L at the kelp bed stations.
- Nothing of sewage origin was observed at any of the kelp stations.

➤ **Offshore Water Quality Sampling**

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



TABLES AND FIGURES

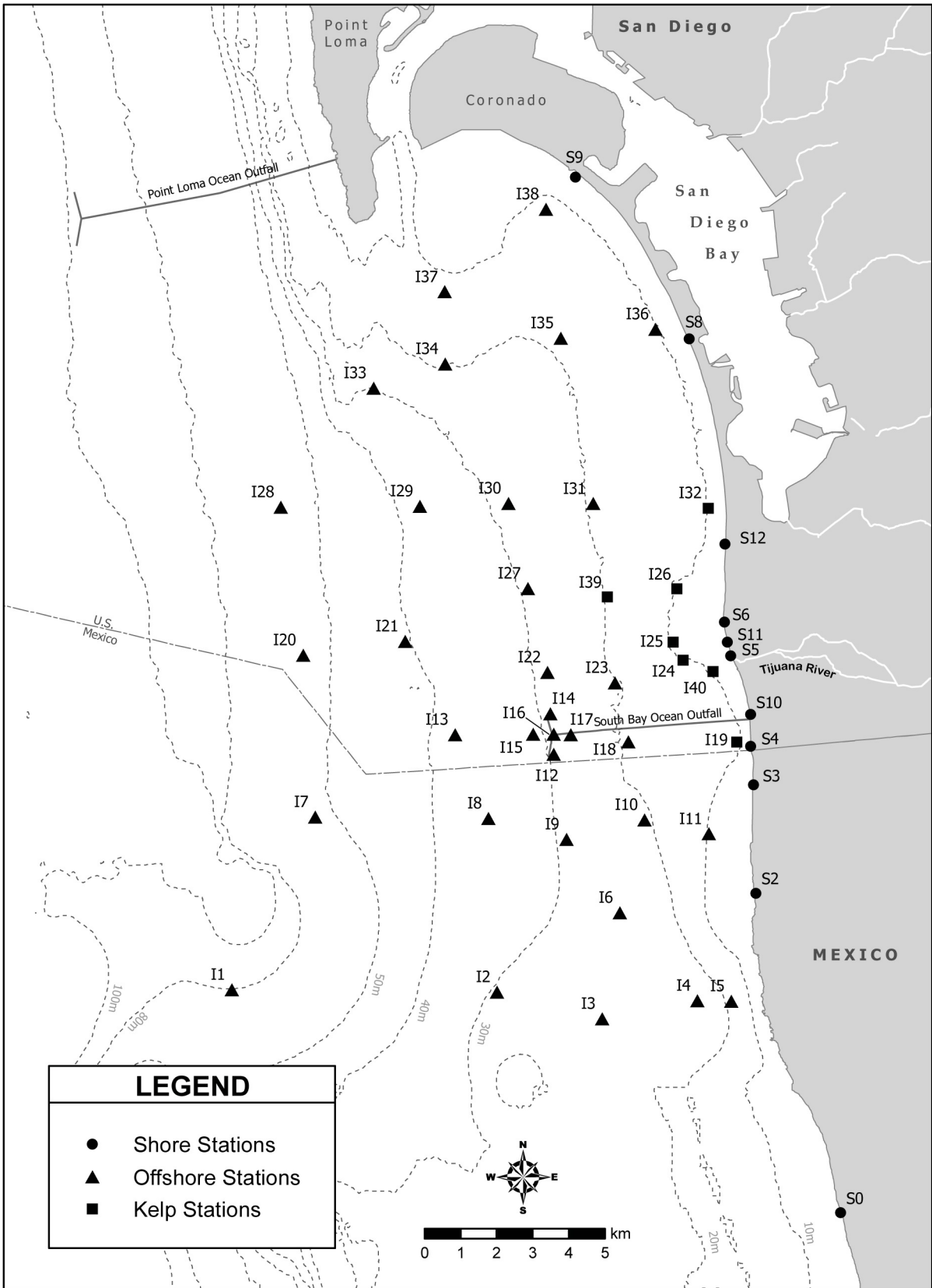


Figure 1.1 Station Map

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 Apr 2020	4412	9360	2827	360	61	5195	1763	860
02 Apr 2020	3963	9031	4016	641	143*	4730	3468	1686
03 Apr 2020	3511	9360	4016	641	143*	4730	3468	1686
04 Apr 2020	3246	9031	4016	641	143*	4531	3468	1686
05 Apr 2020	3246	9360	4016	641	143*	4531	3468	1686
06 Apr 2020	2808	9031	4016	641	143*	3993	3468	1686
07 Apr 2020	3246	9193	4611	731	252	4531	4040	1914
08 Apr 2020	2808	9502	4611	731	252	4077	4040	1914
09 Apr 2020	3300	9042	4450	523	517	4077	3961	1914
10 Apr 2020	3300	9042	4450	523	517	4077	3961	1914
11 Apr 2020	4614	9042	4450	545	916	4591	3961	1914
12 Apr 2020	4614	9042	4450	545	916	4591	3961	1914
13 Apr 2020	5118	9042	4450	545	667	4591	3961	1914
14 Apr 2020	5093	9370	3620	437	430	4775	4497	1617
15 Apr 2020	5093	9042	3120	541	430	4775	3961	1375
16 Apr 2020	3710	9042	2602	360	453	3302	3961	1047
17 Apr 2020	3710	9370	2602	360	453	3302	4497	1047
18 Apr 2020	3284	9042	3634	544	453	2771	5857	1444
19 Apr 2020	3058	9270	3634	544	453	2412	5359	1444
20 Apr 2020	3058	9270	3634	544	453	2412	5359	1444
21 Apr 2020	4098	11152	3557	393	307	3519	5870	1073
22 Apr 2020	4098	11152	3557	393	307	3519	5870	1073
23 Apr 2020	6304	11152	2231	231	295	6637	4465	766
24 Apr 2020	6776	11407	2231	231	295	7319	4465	766
25 Apr 2020	6776	14936	3288	455	295	7319	6203	1057
26 Apr 2020	5849	15000	3288	455	295	7016	6203	1057
27 Apr 2020	5849	15000	3288	455	295	7016	6203	1057
28 Apr 2020	4971	15057	3920	404	281	5077	6713	985
29 Apr 2020	4543	15000	4546	816	468	4527	9327	2388
30 Apr 2020	4543	15057	3470	816	468	4527	7862	2388

* 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 Apr 2020	1162	4325	769	84	16	1207	595	299
02 Apr 2020	956	4040	1277	128	27*	997	1120	522
03 Apr 2020	875	4325	1277	128	27*	933	1120	522
04 Apr 2020	852	4040	1277	128	27*	927	1120	522
05 Apr 2020	852	4325	1277	128	27*	768	1120	522
06 Apr 2020	670	4040	1277	128	27*	611	1120	522
07 Apr 2020	799	3867	1545	167	57	713	1420	583
08 Apr 2020	679	4231	1545	167	57	621	1420	583
09 Apr 2020	776	4029	1380	115	128	561	1242	583
10 Apr 2020	776	4029	1380	115	128	561	1242	583
11 Apr 2020	1240	4029	1380	130	243	660	1242	583
12 Apr 2020	1240	4029	1380	130	243	660	1242	583
13 Apr 2020	1439	4029	1380	125	143	660	1242	525
14 Apr 2020	1451	4314	1038	92	110	724	1458	435
15 Apr 2020	1451	4029	894	121	110	724	1180	382
16 Apr 2020	1011	4029	670	96	120	492	1180	343
17 Apr 2020	1011	4314	670	96	120	492	1458	343
18 Apr 2020	822	4029	1040	166	120	368	1948	534
19 Apr 2020	824	4336	1040	166	120	337	1679	534
20 Apr 2020	824	4336	1040	166	120	337	1679	534
21 Apr 2020	1250	5833	978	127	96	578	1931	366
22 Apr 2020	1250	5833	978	127	96	578	1931	366
23 Apr 2020	2023	6801	521	98	110	1143	1528	247
24 Apr 2020	2304	7047	521	98	110	1415	1528	247
25 Apr 2020	2304	8828	765	187	110	1415	2246	420
26 Apr 2020	2072	8999	765	187	110	1498	2246	420
27 Apr 2020	2072	8999	765	187	110	1498	2246	420
28 Apr 2020	1262	9152	914	139	97	1075	2458	409
29 Apr 2020	1061	8999	1179	252	169	879	3806	874
30 Apr 2020	1061	9152	978	252	169	879	3224	874

* 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 Apr 2020	590	3299	428	39	9	675	547	165
02 Apr 2020	476	3026	616	55	12	550	903	269
03 Apr 2020	465	3299	616	55	12	553	903	269
04 Apr 2020	474	3026	616	55	12	621	903	269
05 Apr 2020	457	3299	616	55	12	572	903	269
06 Apr 2020	373	3080	616	55	12	466	903	269
07 Apr 2020	437	3100	798	73	24	534	1126	300
08 Apr 2020	413	3483	798	73	24	516	1126	300
09 Apr 2020	444	3157	687	50	32	490	1087	285
10 Apr 2020	444	3157	687	50	32	490	1087	285
11 Apr 2020	560	3397	687	67	111	613	1087	293
12 Apr 2020	560	3397	687	67	111	613	1087	293
13 Apr 2020	576	3397	634	57	73	673	987	242
14 Apr 2020	579	3675	559	49	47	672	1140	206
15 Apr 2020	786	3397	540	65	47	870	909	217
16 Apr 2020	585	3397	540	54	51	640	909	198
17 Apr 2020	585	3675	715	54	51	640	1149	198
18 Apr 2020	479	3397	997	86	51	510	1533	296
19 Apr 2020	447	3329	972	86	51	490	1475	296
20 Apr 2020	447	3329	972	86	51	490	1475	296
21 Apr 2020	572	4301	917	77	39	667	1525	248
22 Apr 2020	572	4301	917	77	39	667	1525	248
23 Apr 2020	781	4760	839	71	60	1093	1565	203
24 Apr 2020	870	4723	713	71	60	1249	1346	203
25 Apr 2020	870	6220	1061	129	60	1249	1928	323
26 Apr 2020	836	6480	1061	129	60	1214	1995	323
27 Apr 2020	836	6480	1061	129	60	1214	1995	323
28 Apr 2020	774	6720	1095	127	70	1041	2064	334
29 Apr 2020	667	6480	1558	255	96	874	2907	693
30 Apr 2020	809	6720	1447	177	86	1041	2597	585

* 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 Apr 2020	IC	E	ns	ns	ns	IC	ns	ns
03 Apr 2020	IC	E	ns	ns	ns	ns	ns	ns
05 Apr 2020	ns	E	ns	ns	ns	ns	ns	ns
07 Apr 2020	E	E	E	IC	IC	E	E	IC
09 Apr 2020	E	IC	IC	ns	E	IC	IC	E
10 Apr 2020	ns	ns	ns	ns	ns	ns	ns	ns
11 Apr 2020	E	E	E	E	E	ns	E	E
13 Apr 2020	E	E	E	E	IC	ns	E	E
14 Apr 2020	IC	E	IC	IC	IC	IC	E	IC
16 Apr 2020	IC	E	ns	ns	ns	IC	E	ns
17 Apr 2020	ns	E	ns	ns	ns	ns	E	ns
19 Apr 2020	ns	E	ns	ns	ns	ns	IC	ns
21 Apr 2020	E	E	IC	IC	IC	E	E	IC
23 Apr 2020	E	E	IC	ns	ns	E	IC	ns
24 Apr 2020	E	E	ns	ns	ns	E	ns	ns
26 Apr 2020	IC	E	ns	ns	ns	IC	ns	ns
28 Apr 2020	IC	E	E	IC	IC	IC	E	IC
30 Apr 2020	ns	E	IC	ns	ns	ns	IC	ns

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 Apr 2020	IC	E	ns	ns	ns	E	ns	ns
03 Apr 2020	IC	E	ns	ns	ns	E	ns	ns
05 Apr 2020	ns	E	ns	ns	ns	IC	ns	ns
07 Apr 2020	E	E	E	E	E	E	E	E
09 Apr 2020	E	E	E	ns	E	IC	E	E
10 Apr 2020	ns	ns	ns	ns	ns	ns	ns	ns
11 Apr 2020	E	E	E	E	E	ns	E	E
13 Apr 2020	E	E	E	E	IC	ns	E	E
14 Apr 2020	E	E	IC	IC	IC	E	E	IC
16 Apr 2020	IC	E	ns	ns	ns	IC	E	ns
17 Apr 2020	ns	E	ns	ns	ns	ns	E	ns
19 Apr 2020	ns	E	ns	ns	ns	ns	IC	ns
21 Apr 2020	E	E	E	IC	IC	E	E	IC
23 Apr 2020	E	E	IC	ns	ns	E	IC	ns
24 Apr 2020	E	E	ns	ns	ns	E	ns	ns
26 Apr 2020	E	E	ns	ns	ns	E	ns	ns
28 Apr 2020	IC	E	E	IC	IC	IC	E	IC
30 Apr 2020	ns	E	IC	ns	ns	ns	E	ns

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 Apr 2020	E	E	ns	ns	ns	E	ns	ns
03 Apr 2020	E	E	ns	ns	ns	E	ns	ns
05 Apr 2020	E	E	ns	ns	ns	E	ns	ns
07 Apr 2020	E	E	E	E	E	E	E	E
09 Apr 2020	E	E	E	ns	E	E	E	E
10 Apr 2020	ns	ns	ns	ns	ns	ns	ns	ns
11 Apr 2020	E	E	E	E	E	E	E	E
13 Apr 2020	E	E	E	E	IC	E	E	E
14 Apr 2020	E	E	E	IC	IC	E	E	IC
16 Apr 2020	IC	E	E	ns	ns	IC	E	ns
17 Apr 2020	ns	E	E	ns	ns	ns	E	ns
19 Apr 2020	ns	E	E	ns	ns	ns	E	ns
21 Apr 2020	E	E	E	IC	IC	E	E	IC
23 Apr 2020	E	E	E	ns	ns	E	E	ns
24 Apr 2020	E	E	IC	ns	ns	E	E	ns
26 Apr 2020	E	E	ns	ns	ns	E	E	ns
28 Apr 2020	E	E	E	E	E	E	E	E
30 Apr 2020	E	E	E	IC	IC	E	E	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.7

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

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 Apr 2020	E	E	ns	ns	ns	IC	ns	ns
03 Apr 2020	IC	E	ns	ns	ns	ND	ns	ns
05 Apr 2020	ns	E	ns	ns	ns	ND	ns	ns
07 Apr 2020	E	E	E	E	E	E	E	E
09 Apr 2020	E	E	E	ns	E	IC	E	E
11 Apr 2020	E	E	E	E	E	ns	E	E
13 Apr 2020	E	E	E	E	IC	ns	E	E
14 Apr 2020	E	E	IC	IC	IC	E	E	IC
16 Apr 2020	IC	E	ns	ns	ns	IC	E	ns
17 Apr 2020	ns	E	ns	ns	ns	ns	E	ns
19 Apr 2020	ns	E	ns	ns	ns	ns	E	ns
21 Apr 2020	E	E	E	IC	IC	E	E	IC
23 Apr 2020	E	E	IC	ns	ns	E	IC	ns
24 Apr 2020	E	E	ns	ns	ns	E	ns	ns
26 Apr 2020	IC	E	ns	ns	ns	E	ns	ns
28 Apr 2020	IC	E	E	IC	IC	IC	E	IC
30 Apr 2020	ns	E	IC	ns	ns	ns	E	ns

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	07 Apr 2020	1130	>16000	4000	5000	0.250
S0	14 Apr 2020	1010	8800	1400e	1000e	0.159
S0	21 Apr 2020	1025	16000	2200e	2800e	0.138
S0	28 Apr 2020	1045	>16000	>12000	6800	0.750
S2	07 Apr 2020	1223	3800e	500	960	0.132
S2	14 Apr 2020	1048	260e	72	<20	0.277
S2	21 Apr 2020	930	1500	120e	40e	0.080
S2	28 Apr 2020	1130	<200	8e	30e	0.040
S3	07 Apr 2020	1245	>16000	>12000	>12000	0.750
S3	14 Apr 2020	1117	580	160e	120e	0.276
S3	21 Apr 2020	905	>16000	11000	3000e	0.688
S3	28 Apr 2020	1145	600e	220e	400e	0.367
S4	01 Apr 2020	849	2800e	340e	140e	0.121
S4	03 Apr 2020	911	820	300e	340e	0.366
S4	05 Apr 2020	1017	ns	ns	280e	ns
S4	07 Apr 2020	1012	>16000	5600	4000	0.350
S4	09 Apr 2020	1021	13000	3200e	1600e	0.246
S4	11 Apr 2020	724	16000	8000	3600e	0.500
S4	13 Apr 2020	804	>16000	7400	1800e	0.463
S4	14 Apr 2020	821	4800	1600e	620	0.333
S4	16 Apr 2020	758	260e	40	32e	0.154
S4	21 Apr 2020	1015	>16000	7000	820	0.438
S4	23 Apr 2020	842	>16000	4000	920	0.250
S4	24 Apr 2020	943	15000	9600	3200e	0.640
S4	26 Apr 2020	910	1000	580	500	0.580
S4	28 Apr 2020	945	600e	<2	260e	0.003
S4	30 Apr 2020	1039	ns	ns	>12000	ns
S5	01 Apr 2020	805	>16000	>12000	>12000	0.750
S5	03 Apr 2020	1005	>16000	>12000	>12000	0.750
S5	05 Apr 2020	1049	>16000	>12000	>12000	0.750
S5	07 Apr 2020	903	12000	2000e	3400e	0.167
S5	09 Apr 2020	918	7600	2400e	1100	0.316
S5	11 Apr 2020	805	>16000	>12000	>12000	0.750
S5	13 Apr 2020	854	>16000	>12000	>12000	0.750
S5	14 Apr 2020	920	>16000	>12000	>12000	0.750
S5	16 Apr 2020	838	>16000	>12000	>12000	0.750
S5	17 Apr 2020	1016	>16000	>12000	>12000	0.750
S5	19 Apr 2020	837	>16000	3600e	740	0.225
S5	21 Apr 2020	908	>16000	>12000	4200	0.750
S5	23 Apr 2020	736	>16000	>12000	3200e	0.750
S5	24 Apr 2020	832	>16000	>12000	4200	0.750
S5	26 Apr 2020	824	>16000	>12000	>12000	0.750
S5	28 Apr 2020	859	>16000	>12000	>12000	0.750
S5	30 Apr 2020	932	>16000	>12000	>12000	0.750

Station	Date	Time	Total	Fecal	Entero	F:T
S6	07 Apr 2020	926	> 16000	8600	8200	0.537
S6	09 Apr 2020	942	8400	1100	840	0.131
S6	11 Apr 2020	830	> 16000	> 12000	> 12000	0.750
S6	13 Apr 2020	918	> 16000	> 12000	5400	0.750
S6	14 Apr 2020	951	460	60e	160e	0.130
S6	16 Apr 2020	858	ns	ns	> 12000	ns
S6	17 Apr 2020	1045	ns	ns	> 12000	ns
S6	19 Apr 2020	901	ns	ns	760	ns
S6	21 Apr 2020	937	3000e	600	480	0.200
S6	23 Apr 2020	749	240e	<20	340e	0.083
S6	24 Apr 2020	855	ns	ns	100e	ns
S6	28 Apr 2020	914	> 16000	3800e	1600e	0.237
S6	30 Apr 2020	953	400e	220e	600e	0.550
S8	07 Apr 2020	811	2400e	1800e	980	0.750
S8	09 Apr 2020	857	ns	ns	ns	ns
S8	10 Apr 2020	1520	ns	ns	ns	ns
S8	11 Apr 2020	907	> 16000	6000	4600	0.375
S8	13 Apr 2020	1004	> 16000	8200	1000	0.512
S8	14 Apr 2020	1048	60e	6e	14e	0.100
S8	21 Apr 2020	825	40e	<20	36e	0.500
S8	28 Apr 2020	818	<200	24e	120e	0.120
S8	30 Apr 2020	821	ns	ns	<20	ns
S9	07 Apr 2020	738	2400e	1100	740	0.458
S9	09 Apr 2020	828	> 16000	6800	1800e	0.425
S9	11 Apr 2020	931	> 16000	6000	3600e	0.375
S9	13 Apr 2020	1026	100e	6e	6e	0.060
S9	14 Apr 2020	1126	20e	18e	2e	0.900
S9	21 Apr 2020	757	<20	<20	6e	1.000
S9	28 Apr 2020	749	<200	40e	220e	0.200
S9	30 Apr 2020	745	ns	ns	40e	ns
S10	01 Apr 2020	856	6600	540	320e	0.082
S10	03 Apr 2020	857	ns	420	600	ns
S10	05 Apr 2020	953	ns	80e	180e	ns
S10	07 Apr 2020	1027	16000e	4600	3600e	0.287
S10	09 Apr 2020	1028	3200e	240e	480	0.075
S10	11 Apr 2020	731	ns	ns	5000	ns
S10	13 Apr 2020	754	ns	ns	3000e	ns
S10	14 Apr 2020	808	6800	2000e	660	0.294
S10	16 Apr 2020	751	400	60	62	0.150
S10	21 Apr 2020	1025	> 16000	> 12000	2200e	0.750
S10	23 Apr 2020	848	> 16000	11000	3000e	0.688
S10	24 Apr 2020	953	> 16000	> 12000	6200	0.750
S10	26 Apr 2020	918	4800	2800e	840	0.583
S10	28 Apr 2020	954	<200	<20	120e	0.100
S10	30 Apr 2020	1047	ns	ns	> 12000	ns
S11	07 Apr 2020	918	> 16000	> 12000	8200	0.750
S11	09 Apr 2020	930	8200	1000	1400e	0.122
S11	11 Apr 2020	820	> 16000	> 12000	> 12000	0.750
S11	13 Apr 2020	908	> 16000	> 12000	4600	0.750
S11	14 Apr 2020	940	> 16000	7200	4800	0.450
S11	16 Apr 2020	850	> 16000	> 12000	> 12000	0.750

Station	Date	Time	Total	Fecal	Enteroc	F:T
S11	17 Apr 2020	1033	> 16000	> 12000	> 12000	0.750
S11	19 Apr 2020	850	2200e	380e	1000	0.173
S11	21 Apr 2020	926	> 16000	9000	2200e	0.562
S11	23 Apr 2020	744	600e	60e	520	0.100
S11	24 Apr 2020	847	ns	ns	220e	ns
S11	26 Apr 2020	834	ns	ns	3000e	ns
S11	28 Apr 2020	909	> 16000	6600	3200e	0.412
S11	30 Apr 2020	942	1200e	520	600e	0.433
S12	07 Apr 2020	836	6000	1600e	800	0.267
S12	09 Apr 2020	859	> 16000	> 12000	7200	0.750
S12	11 Apr 2020	850	> 16000	> 12000	12000e	0.750
S12	13 Apr 2020	939	> 16000	4200	1100	0.263
S12	14 Apr 2020	1011	300e	66	40e	0.220
S12	21 Apr 2020	846	100e	18e	60e	0.180
S12	28 Apr 2020	835	600e	340e	420	0.567
S12	30 Apr 2020	913	ns	ns	180e	ns

ns = not sampled

ND = no data

Comments

Station	Date	Depth	Parameter	Comments
S4	01 Apr 2020			Resample for 3/30/20
S5	01 Apr 2020			Resample for 3/30/20
S10	01 Apr 2020			Resample for 3/30/20
S4	03 Apr 2020			Resample
S5	03 Apr 2020			Resample
S10	03 Apr 2020			Resample
S4	05 Apr 2020			Resample
S5	05 Apr 2020			Resample
S10	05 Apr 2020			Resample
S4	09 Apr 2020			Resample
S8	09 Apr 2020			Site inaccessible due to COVID-19 beach closure
S5	09 Apr 2020			Resample
S6	09 Apr 2020			Resample
S9	09 Apr 2020			Resample
S10	09 Apr 2020			Resample
S11	09 Apr 2020			Resample
S12	09 Apr 2020			Resample
S8	10 Apr 2020			Site inaccessible due to COVID-19 beach closure
S4	11 Apr 2020			Resample
S5	11 Apr 2020			Resample
S6	11 Apr 2020			Resample
S8	11 Apr 2020			Resample
S9	11 Apr 2020			Resample
S10	11 Apr 2020			Resample
S11	11 Apr 2020			Resample
S12	11 Apr 2020			Resample
S4	13 Apr 2020			Resample
S5	13 Apr 2020			Resample
S6	13 Apr 2020			Resample
S8	13 Apr 2020			Resample
S9	13 Apr 2020			Resample
S10	13 Apr 2020			Resample
S11	13 Apr 2020			Resample
S12	13 Apr 2020			Resample
S4	16 Apr 2020			Resample
S5	16 Apr 2020			Resample
S6	16 Apr 2020			Resample
S10	16 Apr 2020			Resample
S11	16 Apr 2020			Resample
S11	17 Apr 2020			Resample
S6	17 Apr 2020			Resample
S5	17 Apr 2020			Resample
S5	19 Apr 2020			Resample

Station	Date	Depth	Parameter	Comments
S6	19 Apr 2020			Resample
S11	19 Apr 2020			Resample
S5	23 Apr 2020			Resample
S6	23 Apr 2020			Resample
S10	23 Apr 2020			Resample
S11	23 Apr 2020			Resample
S4	23 Apr 2020			Resample
S4	24 Apr 2020			Resample
S5	24 Apr 2020			Resample
S6	24 Apr 2020			Resample
S10	24 Apr 2020			Resample
S11	24 Apr 2020			Resample
S4	26 Apr 2020			Resample
S5	26 Apr 2020			Resample
S10	26 Apr 2020			Resample
S11	26 Apr 2020			Resample
S4	30 Apr 2020			Resample
S5	30 Apr 2020			Resample
S6	30 Apr 2020			Resample
S8	30 Apr 2020			Resample
S9	30 Apr 2020			Resample
S10	30 Apr 2020			Resample
S11	30 Apr 2020			Resample
S12	30 Apr 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	07 Apr 2020	Arrive Time	1130
S0	07 Apr 2020	Weather	Moderate Rain
S0	07 Apr 2020	Wind Speed (kts)	0.8
S0	07 Apr 2020	Wind Dir	NE
S0	07 Apr 2020	Animal Life	20 Seagulls
S0	07 Apr 2020	Floatables	None
S0	07 Apr 2020	Water Color	Grey
S0	07 Apr 2020	Current Direction	N
S0	07 Apr 2020	Water Temp (C)	16
S0	07 Apr 2020	Wave Height Low (ft)	4
S0	07 Apr 2020	High Tide (ft)	5.6
S0	07 Apr 2020	High Tide Time	915
S0	07 Apr 2020	Low Tide (ft)	-0.6
S0	07 Apr 2020	Low Tide Time	1533
S0	07 Apr 2020	Comments	Kelp; Algae; Debris; Water turbid; 5.0 L/sec water flowing from storm drain
S0	14 Apr 2020	Arrive Time	1010
S0	14 Apr 2020	Weather	Sunny
S0	14 Apr 2020	Wind Speed (kts)	2.4
S0	14 Apr 2020	Wind Dir	NW
S0	14 Apr 2020	Animal Life	20 Seagulls
S0	14 Apr 2020	Floatables	None
S0	14 Apr 2020	Water Color	Grey
S0	14 Apr 2020	Current Direction	N
S0	14 Apr 2020	Water Temp (C)	14
S0	14 Apr 2020	Wave Height Low (ft)	3
S0	14 Apr 2020	High Tide (ft)	4.4
S0	14 Apr 2020	High Tide Time	224
S0	14 Apr 2020	Low Tide (ft)	0.1
S0	14 Apr 2020	Low Tide Time	1031
S0	14 Apr 2020	Comments	Kelp; Debris; Water turbid; 3.0 L/sec water flowing from storm drain
S0	21 Apr 2020	Arrive Time	1025
S0	21 Apr 2020	Weather	Sunny
S0	21 Apr 2020	Wind Speed (kts)	3.7
S0	21 Apr 2020	Wind Dir	SW
S0	21 Apr 2020	Animal Life	None
S0	21 Apr 2020	Floatables	None
S0	21 Apr 2020	Water Color	Brown
S0	21 Apr 2020	Current Direction	N
S0	21 Apr 2020	Water Temp (C)	15
S0	21 Apr 2020	Wave Height Low (ft)	3
S0	21 Apr 2020	High Tide (ft)	4.4
S0	21 Apr 2020	High Tide Time	904
S0	21 Apr 2020	Low Tide (ft)	0.5
S0	21 Apr 2020	Low Tide Time	1506
S0	21 Apr 2020	Comments	Kelp; Water turbid; Red tide was observed; 1.0 L/sec water flowing from storm drain
S0	28 Apr 2020	Arrive Time	1045

Station	Date	Parameter	Value
S0	28 Apr 2020	Weather	Sunny
S0	28 Apr 2020	Wind Speed (kts)	2
S0	28 Apr 2020	Wind Dir	NW
S0	28 Apr 2020	Animal Life	15 Seagulls
S0	28 Apr 2020	Floatables	None
S0	28 Apr 2020	Water Color	Brown
S0	28 Apr 2020	Current Direction	N
S0	28 Apr 2020	Water Temp (C)	15
S0	28 Apr 2020	Wave Height Low (ft)	3
S0	28 Apr 2020	High Tide (ft)	2.8
S0	28 Apr 2020	High Tide Time	1511
S0	28 Apr 2020	Low Tide (ft)	0.2
S0	28 Apr 2020	Low Tide Time	755
S0	28 Apr 2020	Comments	Kelp; Water turbid; Red tide; 1.0 L/sec water flowing from storm drain
S2	07 Apr 2020	Arrive Time	1223
S2	07 Apr 2020	Weather	Moderate Rain
S2	07 Apr 2020	Wind Speed (kts)	0.8
S2	07 Apr 2020	Wind Dir	NE
S2	07 Apr 2020	Animal Life	20 Seagulls
S2	07 Apr 2020	Floatables	None
S2	07 Apr 2020	Water Color	Grey
S2	07 Apr 2020	Current Direction	N
S2	07 Apr 2020	Water Temp (C)	16
S2	07 Apr 2020	Wave Height Low (ft)	3
S2	07 Apr 2020	High Tide (ft)	5.6
S2	07 Apr 2020	High Tide Time	915
S2	07 Apr 2020	Low Tide (ft)	-0.6
S2	07 Apr 2020	Low Tide Time	1533
S2	07 Apr 2020	Comments	Kelp; Seagrass; Debris; Water turbid; No flow from storm drain
S2	14 Apr 2020	Arrive Time	1048
S2	14 Apr 2020	Weather	Sunny
S2	14 Apr 2020	Wind Speed (kts)	7.5
S2	14 Apr 2020	Wind Dir	NW
S2	14 Apr 2020	Animal Life	15 Seagulls
S2	14 Apr 2020	Floatables	None
S2	14 Apr 2020	Water Color	Green
S2	14 Apr 2020	Current Direction	N
S2	14 Apr 2020	Water Temp (C)	15
S2	14 Apr 2020	Wave Height Low (ft)	4
S2	14 Apr 2020	High Tide (ft)	3.3
S2	14 Apr 2020	High Tide Time	1812
S2	14 Apr 2020	Low Tide (ft)	0.1
S2	14 Apr 2020	Low Tide Time	1031
S2	14 Apr 2020	Comments	Kelp; Water turbid; No flow from storm drain
S2	21 Apr 2020	Arrive Time	930
S2	21 Apr 2020	Weather	Sunny
S2	21 Apr 2020	Wind Speed (kts)	3.1
S2	21 Apr 2020	Wind Dir	SW
S2	21 Apr 2020	Animal Life	20 Seagulls
S2	21 Apr 2020	Floatables	None
S2	21 Apr 2020	Water Color	Brown

Station	Date	Parameter	Value
S2	21 Apr 2020	Current Direction	N
S2	21 Apr 2020	Water Temp (C)	14
S2	21 Apr 2020	Wave Height Low (ft)	2
S2	21 Apr 2020	High Tide (ft)	4.4
S2	21 Apr 2020	High Tide Time	904
S2	21 Apr 2020	Low Tide (ft)	0.5
S2	21 Apr 2020	Low Tide Time	1506
S2	21 Apr 2020	Comments	Kelp; Water turbid; Red tide was observed. No flow from storm drain
S2	28 Apr 2020	Arrive Time	1130
S2	28 Apr 2020	Weather	Sunny
S2	28 Apr 2020	Wind Speed (kts)	1.9
S2	28 Apr 2020	Wind Dir	NW
S2	28 Apr 2020	Animal Life	15 Seagulls
S2	28 Apr 2020	Floatables	None
S2	28 Apr 2020	Water Color	Brown
S2	28 Apr 2020	Current Direction	N
S2	28 Apr 2020	Water Temp (C)	15
S2	28 Apr 2020	Wave Height Low (ft)	3
S2	28 Apr 2020	High Tide (ft)	2.8
S2	28 Apr 2020	High Tide Time	1511
S2	28 Apr 2020	Low Tide (ft)	0.2
S2	28 Apr 2020	Low Tide Time	755
S2	28 Apr 2020	Comments	Kelp; Water turbid; Red tide. No flow from storm drain
S3	07 Apr 2020	Arrive Time	1245
S3	07 Apr 2020	Weather	Moderate Rain
S3	07 Apr 2020	Wind Speed (kts)	1.2
S3	07 Apr 2020	Wind Dir	NE
S3	07 Apr 2020	Animal Life	20 Seagulls
S3	07 Apr 2020	Floatables	None
S3	07 Apr 2020	Water Color	Grey
S3	07 Apr 2020	Current Direction	N
S3	07 Apr 2020	Water Temp (C)	16
S3	07 Apr 2020	Wave Height Low (ft)	3
S3	07 Apr 2020	High Tide (ft)	5.6
S3	07 Apr 2020	High Tide Time	915
S3	07 Apr 2020	Low Tide (ft)	-0.6
S3	07 Apr 2020	Low Tide Time	1533
S3	07 Apr 2020	Comments	Kelp; Algae; Debris; Water turbid; 5.0 L/sec water flowing from storm drain
S3	14 Apr 2020	Arrive Time	1117
S3	14 Apr 2020	Weather	Sunny
S3	14 Apr 2020	Wind Speed (kts)	6
S3	14 Apr 2020	Wind Dir	NW
S3	14 Apr 2020	Animal Life	20 Seagulls
S3	14 Apr 2020	Floatables	None
S3	14 Apr 2020	Water Color	Green
S3	14 Apr 2020	Current Direction	N
S3	14 Apr 2020	Water Temp (C)	15
S3	14 Apr 2020	Wave Height Low (ft)	4
S3	14 Apr 2020	High Tide (ft)	3.3
S3	14 Apr 2020	High Tide Time	1812

Station	Date	Parameter	Value
S3	14 Apr 2020	Low Tide (ft)	0.1
S3	14 Apr 2020	Low Tide Time	1031
S3	14 Apr 2020	Comments	Kelp; Debris; Water turbid; 5.0 L/sec water flowing from storm drain
S3	21 Apr 2020	Arrive Time	905
S3	21 Apr 2020	Weather	Sunny
S3	21 Apr 2020	Wind Speed (kts)	2.5
S3	21 Apr 2020	Wind Dir	SW
S3	21 Apr 2020	Animal Life	20 Seagulls
S3	21 Apr 2020	Floatables	None
S3	21 Apr 2020	Water Color	Brown
S3	21 Apr 2020	Current Direction	N
S3	21 Apr 2020	Water Temp (C)	14
S3	21 Apr 2020	Wave Height Low (ft)	2
S3	21 Apr 2020	High Tide (ft)	4.4
S3	21 Apr 2020	High Tide Time	904
S3	21 Apr 2020	Low Tide (ft)	0.3
S3	21 Apr 2020	Low Tide Time	310
S3	21 Apr 2020	Comments	Kelp; Water turbid; Red tide was observed. 0.5 L/sec water flowing from storm drain
S3	28 Apr 2020	Arrive Time	1145
S3	28 Apr 2020	Weather	Sunny
S3	28 Apr 2020	Wind Speed (kts)	2.1
S3	28 Apr 2020	Wind Dir	NW
S3	28 Apr 2020	Animal Life	15 Seagulls
S3	28 Apr 2020	Floatables	None
S3	28 Apr 2020	Water Color	Brown
S3	28 Apr 2020	Current Direction	N
S3	28 Apr 2020	Water Temp (C)	15
S3	28 Apr 2020	Wave Height Low (ft)	3
S3	28 Apr 2020	High Tide (ft)	2.8
S3	28 Apr 2020	High Tide Time	1511
S3	28 Apr 2020	Low Tide (ft)	0.2
S3	28 Apr 2020	Low Tide Time	755
S3	28 Apr 2020	Comments	Kelp; Water turbid; Red tide. No flow from storm drain
S4	01 Apr 2020	Arrive Time	849
S4	01 Apr 2020	Weather	Overcast
S4	01 Apr 2020	Wind Speed (kts)	5.8
S4	01 Apr 2020	Wind Dir	S
S4	01 Apr 2020	Animal Life	None
S4	01 Apr 2020	Floatables	Dead Animals
S4	01 Apr 2020	Water Color	Green
S4	01 Apr 2020	Current Direction	N
S4	01 Apr 2020	Water Temp (C)	13.9
S4	01 Apr 2020	Wave Height Low (ft)	1
S4	01 Apr 2020	High Tide (ft)	4.2
S4	01 Apr 2020	High Tide Time	248
S4	01 Apr 2020	Low Tide (ft)	0.4
S4	01 Apr 2020	Low Tide Time	1119
S4	01 Apr 2020	Comments	Resample; Kelp; Seagrass; Water clear
S4	03 Apr 2020	Arrive Time	911
S4	03 Apr 2020	Weather	Partly Cloudy

Station	Date	Parameter	Value
S4	03 Apr 2020	Wind Speed (kts)	5.1
S4	03 Apr 2020	Wind Dir	W
S4	03 Apr 2020	Animal Life	12 Godwits
S4	03 Apr 2020	Floatables	None
S4	03 Apr 2020	Water Color	Green
S4	03 Apr 2020	Current Direction	N
S4	03 Apr 2020	Water Temp (C)	16
S4	03 Apr 2020	Wave Height Low (ft)	2
S4	03 Apr 2020	High Tide (ft)	4.7
S4	03 Apr 2020	High Tide Time	549
S4	03 Apr 2020	Low Tide (ft)	-0.5
S4	03 Apr 2020	Low Tide Time	1306
S4	03 Apr 2020	Comments	Resample; Kelp; Water turbid
S4	05 Apr 2020	Arrive Time	1017
S4	05 Apr 2020	Weather	Overcast
S4	05 Apr 2020	Wind Speed (kts)	6.2
S4	05 Apr 2020	Wind Dir	S
S4	05 Apr 2020	Animal Life	None
S4	05 Apr 2020	Floatables	Foam; Film
S4	05 Apr 2020	Water Color	Green
S4	05 Apr 2020	Current Direction	N
S4	05 Apr 2020	Water Temp (C)	16.5
S4	05 Apr 2020	Wave Height Low (ft)	2
S4	05 Apr 2020	High Tide (ft)	5.5
S4	05 Apr 2020	High Tide Time	739
S4	05 Apr 2020	Low Tide (ft)	-0.9
S4	05 Apr 2020	Low Tide Time	1422
S4	05 Apr 2020	Comments	Resample; Kelp; Seagrass; Sewage-like odor; Water clear
S4	07 Apr 2020	Arrive Time	1012
S4	07 Apr 2020	Weather	Overcast
S4	07 Apr 2020	Wind Speed (kts)	2.3
S4	07 Apr 2020	Wind Dir	SW
S4	07 Apr 2020	Animal Life	1 Pelican; 50 Plovers
S4	07 Apr 2020	Floatables	Foam
S4	07 Apr 2020	Water Color	Brown
S4	07 Apr 2020	Current Direction	S
S4	07 Apr 2020	Water Temp (C)	17.3
S4	07 Apr 2020	Wave Height Low (ft)	2
S4	07 Apr 2020	High Tide (ft)	5.6
S4	07 Apr 2020	High Tide Time	915
S4	07 Apr 2020	Low Tide (ft)	-0.6
S4	07 Apr 2020	Low Tide Time	1533
S4	07 Apr 2020	Comments	Kelp; Seagrass; Debris; Water turbid
S4	09 Apr 2020	Arrive Time	1021
S4	09 Apr 2020	Weather	Cloudy
S4	09 Apr 2020	Wind Speed (kts)	9.3
S4	09 Apr 2020	Wind Dir	SW
S4	09 Apr 2020	Animal Life	1 Godwit
S4	09 Apr 2020	Floatables	Foam
S4	09 Apr 2020	Water Color	Green
S4	09 Apr 2020	Current Direction	N
S4	09 Apr 2020	Water Temp (C)	16.5

Station	Date	Parameter	Value
S4	09 Apr 2020	Wave Height Low (ft)	2
S4	09 Apr 2020	High Tide (ft)	4.7
S4	09 Apr 2020	High Tide Time	1053
S4	09 Apr 2020	Low Tide (ft)	-0.9
S4	09 Apr 2020	Low Tide Time	450
S4	09 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water turbid
S4	11 Apr 2020	Arrive Time	724
S4	11 Apr 2020	Weather	Partly Cloudy
S4	11 Apr 2020	Wind Speed (kts)	0.7
S4	11 Apr 2020	Wind Dir	E
S4	11 Apr 2020	Animal Life	2 Godwits; 2 Seagulls
S4	11 Apr 2020	Floatables	Foam; Film
S4	11 Apr 2020	Water Color	Green
S4	11 Apr 2020	Current Direction	N
S4	11 Apr 2020	Water Temp (C)	15.4
S4	11 Apr 2020	Wave Height Low (ft)	1
S4	11 Apr 2020	High Tide (ft)	3.5
S4	11 Apr 2020	High Tide Time	1251
S4	11 Apr 2020	Low Tide (ft)	-0.6
S4	11 Apr 2020	Low Tide Time	637
S4	11 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S4	13 Apr 2020	Arrive Time	804
S4	13 Apr 2020	Weather	Drizzle
S4	13 Apr 2020	Wind Speed (kts)	3.1
S4	13 Apr 2020	Wind Dir	SW
S4	13 Apr 2020	Animal Life	1 Shorebird; 3 Godwits; 8 Seagulls
S4	13 Apr 2020	Floatables	None
S4	13 Apr 2020	Water Color	Green
S4	13 Apr 2020	Current Direction	S
S4	13 Apr 2020	Water Temp (C)	17.2
S4	13 Apr 2020	Wave Height Low (ft)	1
S4	13 Apr 2020	High Tide (ft)	4.9
S4	13 Apr 2020	High Tide Time	109
S4	13 Apr 2020	Low Tide (ft)	0
S4	13 Apr 2020	Low Tide Time	902
S4	13 Apr 2020	Comments	Resample; Debris; Water clear
S4	14 Apr 2020	Arrive Time	821
S4	14 Apr 2020	Weather	Partly Cloudy
S4	14 Apr 2020	Wind Speed (kts)	6.8
S4	14 Apr 2020	Wind Dir	N
S4	14 Apr 2020	Animal Life	4 Godwits; 17 Seagulls
S4	14 Apr 2020	Floatables	None
S4	14 Apr 2020	Water Color	Green
S4	14 Apr 2020	Current Direction	S
S4	14 Apr 2020	Water Temp (C)	16.7
S4	14 Apr 2020	Wave Height Low (ft)	2
S4	14 Apr 2020	High Tide (ft)	4.4
S4	14 Apr 2020	High Tide Time	224
S4	14 Apr 2020	Low Tide (ft)	0.1
S4	14 Apr 2020	Low Tide Time	1031
S4	14 Apr 2020	Comments	Debris; Water turbid

Station	Date	Parameter	Value
S4	16 Apr 2020	Arrive Time	758
S4	16 Apr 2020	Weather	Partly Cloudy
S4	16 Apr 2020	Wind Speed (kts)	0.7
S4	16 Apr 2020	Wind Dir	E
S4	16 Apr 2020	Animal Life	10 Cormorants; 11 Godwits
S4	16 Apr 2020	Floatables	Foam; Film
S4	16 Apr 2020	Water Color	Green
S4	16 Apr 2020	Current Direction	N
S4	16 Apr 2020	Water Temp (C)	16.5
S4	16 Apr 2020	Wave Height Low (ft)	2
S4	16 Apr 2020	High Tide (ft)	4.2
S4	16 Apr 2020	High Tide Time	528
S4	16 Apr 2020	Low Tide (ft)	0
S4	16 Apr 2020	Low Tide Time	1242
S4	16 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water clear
S4	21 Apr 2020	Arrive Time	1015
S4	21 Apr 2020	Weather	Sunny
S4	21 Apr 2020	Wind Speed (kts)	4.4
S4	21 Apr 2020	Wind Dir	W
S4	21 Apr 2020	Animal Life	2 Godwits
S4	21 Apr 2020	Floatables	None
S4	21 Apr 2020	Water Color	Green
S4	21 Apr 2020	Current Direction	S
S4	21 Apr 2020	Water Temp (C)	4.6
S4	21 Apr 2020	Wave Height Low (ft)	3
S4	21 Apr 2020	High Tide (ft)	4.4
S4	21 Apr 2020	High Tide Time	904
S4	21 Apr 2020	Low Tide (ft)	0.5
S4	21 Apr 2020	Low Tide Time	1506
S4	21 Apr 2020	Comments	Kelp; Seagrass; Debris; Water clear
S4	23 Apr 2020	Arrive Time	842
S4	23 Apr 2020	Weather	Sunny
S4	23 Apr 2020	Wind Speed (kts)	2.1
S4	23 Apr 2020	Wind Dir	W
S4	23 Apr 2020	Animal Life	2 Godwits; 3 Plovers
S4	23 Apr 2020	Floatables	Foam; Dead Animals; Film
S4	23 Apr 2020	Water Color	Green
S4	23 Apr 2020	Current Direction	S
S4	23 Apr 2020	Water Temp (C)	14.1
S4	23 Apr 2020	Wave Height Low (ft)	2
S4	23 Apr 2020	High Tide (ft)	4
S4	23 Apr 2020	High Tide Time	1012
S4	23 Apr 2020	Low Tide (ft)	-0.1
S4	23 Apr 2020	Low Tide Time	411
S4	23 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water turbid
S4	24 Apr 2020	Arrive Time	943
S4	24 Apr 2020	Weather	Sunny
S4	24 Apr 2020	Wind Speed (kts)	7.1
S4	24 Apr 2020	Wind Dir	NE
S4	24 Apr 2020	Animal Life	2 Godwits; 1 Plover; 1 Tern
S4	24 Apr 2020	Floatables	Foam; Film
S4	24 Apr 2020	Water Color	Green

Station	Date	Parameter	Value
S4	24 Apr 2020	Current Direction	S
S4	24 Apr 2020	Water Temp (C)	15.8
S4	24 Apr 2020	Wave Height Low (ft)	3
S4	24 Apr 2020	High Tide (ft)	3.8
S4	24 Apr 2020	High Tide Time	1049
S4	24 Apr 2020	Low Tide (ft)	-0.2
S4	24 Apr 2020	Low Tide Time	444
S4	24 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water turbid
S4	26 Apr 2020	Arrive Time	910
S4	26 Apr 2020	Weather	Hazy
S4	26 Apr 2020	Wind Speed (kts)	1.3
S4	26 Apr 2020	Wind Dir	W
S4	26 Apr 2020	Animal Life	1 Godwit; 11 Plovers
S4	26 Apr 2020	Floatables	Foam; Film
S4	26 Apr 2020	Water Color	Brown
S4	26 Apr 2020	Current Direction	S
S4	26 Apr 2020	Water Temp (C)	17.7
S4	26 Apr 2020	Wave Height Low (ft)	3
S4	26 Apr 2020	High Tide (ft)	3.1
S4	26 Apr 2020	High Tide Time	1220
S4	26 Apr 2020	Low Tide (ft)	-0.1
S4	26 Apr 2020	Low Tide Time	602
S4	26 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water turbid
S4	28 Apr 2020	Arrive Time	945
S4	28 Apr 2020	Weather	Sunny
S4	28 Apr 2020	Wind Speed (kts)	2.9
S4	28 Apr 2020	Wind Dir	W
S4	28 Apr 2020	Animal Life	1 Plover
S4	28 Apr 2020	Floatables	Foam; Film
S4	28 Apr 2020	Water Color	Red
S4	28 Apr 2020	Current Direction	N
S4	28 Apr 2020	Water Temp (C)	22
S4	28 Apr 2020	Wave Height Low (ft)	3
S4	28 Apr 2020	High Tide (ft)	2.8
S4	28 Apr 2020	High Tide Time	1511
S4	28 Apr 2020	Low Tide (ft)	0.2
S4	28 Apr 2020	Low Tide Time	755
S4	28 Apr 2020	Comments	Kelp; Seagrass; Algae; Water turbid
S4	30 Apr 2020	Arrive Time	1039
S4	30 Apr 2020	Weather	Overcast
S4	30 Apr 2020	Wind Speed (kts)	6.9
S4	30 Apr 2020	Wind Dir	W
S4	30 Apr 2020	Animal Life	6 Plovers; 2 Sanderlings; 1 Seagull
S4	30 Apr 2020	Floatables	Foam; Film
S4	30 Apr 2020	Water Color	Brown
S4	30 Apr 2020	Current Direction	N
S4	30 Apr 2020	Water Temp (C)	20.6
S4	30 Apr 2020	Wave Height Low (ft)	2
S4	30 Apr 2020	High Tide (ft)	3.4
S4	30 Apr 2020	High Tide Time	1756
S4	30 Apr 2020	Low Tide (ft)	0.1
S4	30 Apr 2020	Low Tide Time	1028

Station	Date	Parameter	Value
S4	30 Apr 2020	Comments	Resample; Kelp; Seagrass; Algae; Debris; Sewage-like odor; Water turbid
S5	01 Apr 2020	Arrive Time	805
S5	01 Apr 2020	Weather	Overcast
S5	01 Apr 2020	Wind Speed (kts)	6.4
S5	01 Apr 2020	Wind Dir	SW
S5	01 Apr 2020	Animal Life	7 Pelicans; 29 Seagulls; 27 Terns
S5	01 Apr 2020	Floatables	Foam
S5	01 Apr 2020	Water Color	Brown
S5	01 Apr 2020	Current Direction	N
S5	01 Apr 2020	Water Temp (C)	16.2
S5	01 Apr 2020	Wave Height Low (ft)	1
S5	01 Apr 2020	High Tide (ft)	4.2
S5	01 Apr 2020	High Tide Time	248
S5	01 Apr 2020	Low Tide (ft)	0.4
S5	01 Apr 2020	Low Tide Time	1119
S5	01 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water turbid
S5	03 Apr 2020	Arrive Time	1005
S5	03 Apr 2020	Weather	Sunny
S5	03 Apr 2020	Wind Speed (kts)	5.6
S5	03 Apr 2020	Wind Dir	W
S5	03 Apr 2020	Animal Life	1 Bird; 4 Godwits; 15 Seagulls; 3 Terns
S5	03 Apr 2020	Floatables	Foam
S5	03 Apr 2020	Water Color	Brown
S5	03 Apr 2020	Current Direction	S
S5	03 Apr 2020	Water Temp (C)	17.2
S5	03 Apr 2020	Wave Height Low (ft)	3
S5	03 Apr 2020	High Tide (ft)	4.7
S5	03 Apr 2020	High Tide Time	549
S5	03 Apr 2020	Low Tide (ft)	-0.5
S5	03 Apr 2020	Low Tide Time	1306
S5	03 Apr 2020	Comments	Resample; Sewage-like odor; Water turbid
S5	05 Apr 2020	Arrive Time	1049
S5	05 Apr 2020	Weather	Overcast
S5	05 Apr 2020	Wind Speed (kts)	5.2
S5	05 Apr 2020	Wind Dir	S
S5	05 Apr 2020	Animal Life	20 Godwits
S5	05 Apr 2020	Floatables	Foam; Film
S5	05 Apr 2020	Water Color	Green
S5	05 Apr 2020	Current Direction	N
S5	05 Apr 2020	Water Temp (C)	16.9
S5	05 Apr 2020	Wave Height Low (ft)	2
S5	05 Apr 2020	High Tide (ft)	5.5
S5	05 Apr 2020	High Tide Time	739
S5	05 Apr 2020	Low Tide (ft)	-0.9
S5	05 Apr 2020	Low Tide Time	1422
S5	05 Apr 2020	Comments	Resample; Kelp; Seagrass; Sewage-like odor; Water clear
S5	07 Apr 2020	Arrive Time	903
S5	07 Apr 2020	Weather	Overcast
S5	07 Apr 2020	Wind Speed (kts)	2.7
S5	07 Apr 2020	Wind Dir	E

Station	Date	Parameter	Value
S5	07 Apr 2020	Animal Life	20 Godwits; 12 Pelicans; 2 Terns
S5	07 Apr 2020	Floatables	Foam
S5	07 Apr 2020	Water Color	Brown
S5	07 Apr 2020	Current Direction	S
S5	07 Apr 2020	Water Temp (C)	16.6
S5	07 Apr 2020	Wave Height Low (ft)	2
S5	07 Apr 2020	High Tide (ft)	5.6
S5	07 Apr 2020	High Tide Time	915
S5	07 Apr 2020	Low Tide (ft)	-0.3
S5	07 Apr 2020	Low Tide Time	316
S5	07 Apr 2020	Comments	Kelp; Seagrass; Debris; Water turbid
S5	09 Apr 2020	Arrive Time	918
S5	09 Apr 2020	Weather	Cloudy
S5	09 Apr 2020	Wind Speed (kts)	9.3
S5	09 Apr 2020	Wind Dir	S
S5	09 Apr 2020	Animal Life	3 Terns
S5	09 Apr 2020	Floatables	Foam
S5	09 Apr 2020	Water Color	Brown
S5	09 Apr 2020	Current Direction	N
S5	09 Apr 2020	Water Temp (C)	17.2
S5	09 Apr 2020	Wave Height Low (ft)	3
S5	09 Apr 2020	High Tide (ft)	4.7
S5	09 Apr 2020	High Tide Time	1053
S5	09 Apr 2020	Low Tide (ft)	-0.9
S5	09 Apr 2020	Low Tide Time	450
S5	09 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water turbid
S5	11 Apr 2020	Arrive Time	805
S5	11 Apr 2020	Weather	Partly Cloudy
S5	11 Apr 2020	Wind Speed (kts)	1.3
S5	11 Apr 2020	Wind Dir	E
S5	11 Apr 2020	Animal Life	30 Grebes; 10 Seagulls
S5	11 Apr 2020	Floatables	Foam; Film
S5	11 Apr 2020	Water Color	Brown
S5	11 Apr 2020	Current Direction	N
S5	11 Apr 2020	Water Temp (C)	16.2
S5	11 Apr 2020	Wave Height Low (ft)	0.5
S5	11 Apr 2020	High Tide (ft)	3.5
S5	11 Apr 2020	High Tide Time	1251
S5	11 Apr 2020	Low Tide (ft)	-0.6
S5	11 Apr 2020	Low Tide Time	637
S5	11 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water turbid
S5	13 Apr 2020	Arrive Time	854
S5	13 Apr 2020	Weather	Drizzle
S5	13 Apr 2020	Wind Speed (kts)	0.7
S5	13 Apr 2020	Wind Dir	W
S5	13 Apr 2020	Animal Life	11 Pelicans; 1 Seagull
S5	13 Apr 2020	Floatables	Foam
S5	13 Apr 2020	Water Color	Brown
S5	13 Apr 2020	Current Direction	S
S5	13 Apr 2020	Water Temp (C)	16.6
S5	13 Apr 2020	Wave Height Low (ft)	1
S5	13 Apr 2020	High Tide (ft)	3

Station	Date	Parameter	Value
S5	13 Apr 2020	High Tide Time	1624
S5	13 Apr 2020	Low Tide (ft)	0
S5	13 Apr 2020	Low Tide Time	902
S5	13 Apr 2020	Comments	Resample; Water turbid
S5	14 Apr 2020	Arrive Time	920
S5	14 Apr 2020	Weather	Partly Cloudy
S5	14 Apr 2020	Wind Speed (kts)	6
S5	14 Apr 2020	Wind Dir	N
S5	14 Apr 2020	Animal Life	6 Seagulls
S5	14 Apr 2020	Floatables	Foam
S5	14 Apr 2020	Water Color	Brown
S5	14 Apr 2020	Current Direction	S
S5	14 Apr 2020	Water Temp (C)	18.6
S5	14 Apr 2020	Wave Height Low (ft)	1
S5	14 Apr 2020	High Tide (ft)	4.4
S5	14 Apr 2020	High Tide Time	224
S5	14 Apr 2020	Low Tide (ft)	0.1
S5	14 Apr 2020	Low Tide Time	1031
S5	14 Apr 2020	Comments	Sewage-like odor; Water turbid
S5	16 Apr 2020	Arrive Time	838
S5	16 Apr 2020	Weather	Overcast
S5	16 Apr 2020	Wind Speed (kts)	5.2
S5	16 Apr 2020	Wind Dir	W
S5	16 Apr 2020	Animal Life	None
S5	16 Apr 2020	Floatables	Foam; Dead Animals; Film
S5	16 Apr 2020	Water Color	Brown
S5	16 Apr 2020	Current Direction	N
S5	16 Apr 2020	Water Temp (C)	18.6
S5	16 Apr 2020	Wave Height Low (ft)	1
S5	16 Apr 2020	High Tide (ft)	4.2
S5	16 Apr 2020	High Tide Time	528
S5	16 Apr 2020	Low Tide (ft)	0
S5	16 Apr 2020	Low Tide Time	1242
S5	16 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water turbid
S5	17 Apr 2020	Arrive Time	1016
S5	17 Apr 2020	Weather	Partly Cloudy
S5	17 Apr 2020	Wind Speed (kts)	6.9
S5	17 Apr 2020	Wind Dir	W
S5	17 Apr 2020	Animal Life	1 Seagull
S5	17 Apr 2020	Floatables	Foam
S5	17 Apr 2020	Water Color	Brown
S5	17 Apr 2020	Current Direction	S
S5	17 Apr 2020	Water Temp (C)	20.9
S5	17 Apr 2020	Wave Height Low (ft)	3
S5	17 Apr 2020	High Tide (ft)	4.3
S5	17 Apr 2020	High Tide Time	631
S5	17 Apr 2020	Low Tide (ft)	0
S5	17 Apr 2020	Low Tide Time	1322
S5	17 Apr 2020	Comments	Resample; Sewage-like odor; Water turbid
S5	19 Apr 2020	Arrive Time	837
S5	19 Apr 2020	Weather	Overcast

Station	Date	Parameter	Value
S5	19 Apr 2020	Wind Speed (kts)	5
S5	19 Apr 2020	Wind Dir	N
S5	19 Apr 2020	Animal Life	1 Pelican
S5	19 Apr 2020	Floatables	Foam
S5	19 Apr 2020	Water Color	Green
S5	19 Apr 2020	Current Direction	S
S5	19 Apr 2020	Water Temp (C)	14.6
S5	19 Apr 2020	Wave Height Low (ft)	2
S5	19 Apr 2020	High Tide (ft)	4.5
S5	19 Apr 2020	High Tide Time	757
S5	19 Apr 2020	Low Tide (ft)	0.2
S5	19 Apr 2020	Low Tide Time	1419
S5	19 Apr 2020	Comments	Resample; Kelp; Seagrass; Water clear
S5	21 Apr 2020	Arrive Time	908
S5	21 Apr 2020	Weather	Partly Cloudy
S5	21 Apr 2020	Wind Speed (kts)	3.1
S5	21 Apr 2020	Wind Dir	W
S5	21 Apr 2020	Animal Life	1 Plover
S5	21 Apr 2020	Floatables	Toilet Tissues
S5	21 Apr 2020	Water Color	Brown
S5	21 Apr 2020	Current Direction	S
S5	21 Apr 2020	Water Temp (C)	15.9
S5	21 Apr 2020	Wave Height Low (ft)	3
S5	21 Apr 2020	High Tide (ft)	4.4
S5	21 Apr 2020	High Tide Time	904
S5	21 Apr 2020	Low Tide (ft)	0.3
S5	21 Apr 2020	Low Tide Time	310
S5	21 Apr 2020	Comments	Kelp; Seagrass; Debris; Sewage-like odor; Water turbid
S5	23 Apr 2020	Arrive Time	736
S5	23 Apr 2020	Weather	Sunny
S5	23 Apr 2020	Wind Speed (kts)	2.1
S5	23 Apr 2020	Wind Dir	SE
S5	23 Apr 2020	Animal Life	1 Godwit; 23 Pelicans; 5 Seagulls
S5	23 Apr 2020	Floatables	Foam; Film
S5	23 Apr 2020	Water Color	Green
S5	23 Apr 2020	Current Direction	S
S5	23 Apr 2020	Water Temp (C)	14.9
S5	23 Apr 2020	Wave Height Low (ft)	3
S5	23 Apr 2020	High Tide (ft)	4
S5	23 Apr 2020	High Tide Time	1012
S5	23 Apr 2020	Low Tide (ft)	-0.1
S5	23 Apr 2020	Low Tide Time	411
S5	23 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water turbid
S5	24 Apr 2020	Arrive Time	832
S5	24 Apr 2020	Weather	Sunny
S5	24 Apr 2020	Wind Speed (kts)	1.9
S5	24 Apr 2020	Wind Dir	NE
S5	24 Apr 2020	Animal Life	1 Plover; 2 Seagulls
S5	24 Apr 2020	Floatables	Foam; Film
S5	24 Apr 2020	Water Color	Brown
S5	24 Apr 2020	Current Direction	S
S5	24 Apr 2020	Water Temp (C)	18.2

Station	Date	Parameter	Value
S5	24 Apr 2020	Wave Height Low (ft)	3
S5	24 Apr 2020	High Tide (ft)	3.8
S5	24 Apr 2020	High Tide Time	1049
S5	24 Apr 2020	Low Tide (ft)	-0.2
S5	24 Apr 2020	Low Tide Time	444
S5	24 Apr 2020	Comments	Resample; Kelp; Seagrass; Algae; Debris; Sewage-like odor; Water turbid
S5	26 Apr 2020	Arrive Time	824
S5	26 Apr 2020	Weather	Foggy
S5	26 Apr 2020	Wind Speed (kts)	0
S5	26 Apr 2020	Wind Dir	
S5	26 Apr 2020	Animal Life	3 Terns
S5	26 Apr 2020	Floatables	Foam; Film
S5	26 Apr 2020	Water Color	Brown
S5	26 Apr 2020	Current Direction	S
S5	26 Apr 2020	Water Temp (C)	22.6
S5	26 Apr 2020	Wave Height Low (ft)	3
S5	26 Apr 2020	High Tide (ft)	3.1
S5	26 Apr 2020	High Tide Time	1220
S5	26 Apr 2020	Low Tide (ft)	-0.1
S5	26 Apr 2020	Low Tide Time	602
S5	26 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water turbid
S5	28 Apr 2020	Arrive Time	859
S5	28 Apr 2020	Weather	Hazy
S5	28 Apr 2020	Wind Speed (kts)	2.7
S5	28 Apr 2020	Wind Dir	W
S5	28 Apr 2020	Animal Life	2 Dolphins; 2 Terns
S5	28 Apr 2020	Floatables	Foam; Film
S5	28 Apr 2020	Water Color	Green
S5	28 Apr 2020	Current Direction	N
S5	28 Apr 2020	Water Temp (C)	21.9
S5	28 Apr 2020	Wave Height Low (ft)	2
S5	28 Apr 2020	High Tide (ft)	2.8
S5	28 Apr 2020	High Tide Time	1511
S5	28 Apr 2020	Low Tide (ft)	0.2
S5	28 Apr 2020	Low Tide Time	755
S5	28 Apr 2020	Comments	Kelp; Seagrass; Algae; Debris; Sewage-like odor; Water turbid; Strong smell; Brown/green water
S5	30 Apr 2020	Arrive Time	932
S5	30 Apr 2020	Weather	Overcast
S5	30 Apr 2020	Wind Speed (kts)	3.8
S5	30 Apr 2020	Wind Dir	W
S5	30 Apr 2020	Animal Life	1 Plover
S5	30 Apr 2020	Floatables	Foam; Film
S5	30 Apr 2020	Water Color	Brown
S5	30 Apr 2020	Current Direction	S
S5	30 Apr 2020	Water Temp (C)	22.2
S5	30 Apr 2020	Wave Height Low (ft)	2
S5	30 Apr 2020	High Tide (ft)	4.3
S5	30 Apr 2020	High Tide Time	215
S5	30 Apr 2020	Low Tide (ft)	0.1
S5	30 Apr 2020	Low Tide Time	1028

Station	Date	Parameter	Value
S5	30 Apr 2020	Comments	Resample; Kelp; Seagrass; Algae; Debris; Sewage-like odor; 2 Persons; Water turbid
S6	07 Apr 2020	Arrive Time	926
S6	07 Apr 2020	Weather	Overcast
S6	07 Apr 2020	Wind Speed (kts)	2.5
S6	07 Apr 2020	Wind Dir	E
S6	07 Apr 2020	Animal Life	6 Godwits
S6	07 Apr 2020	Floatables	None
S6	07 Apr 2020	Water Color	Brown
S6	07 Apr 2020	Current Direction	S
S6	07 Apr 2020	Water Temp (C)	17.2
S6	07 Apr 2020	Wave Height Low (ft)	3
S6	07 Apr 2020	High Tide (ft)	5.6
S6	07 Apr 2020	High Tide Time	915
S6	07 Apr 2020	Low Tide (ft)	-0.3
S6	07 Apr 2020	Low Tide Time	316
S6	07 Apr 2020	Comments	Kelp; Seagrass; Algae; Water turbid
S6	09 Apr 2020	Arrive Time	942
S6	09 Apr 2020	Weather	Drizzle
S6	09 Apr 2020	Wind Speed (kts)	5.6
S6	09 Apr 2020	Wind Dir	S
S6	09 Apr 2020	Animal Life	None
S6	09 Apr 2020	Floatables	Foam
S6	09 Apr 2020	Water Color	Green
S6	09 Apr 2020	Current Direction	N
S6	09 Apr 2020	Water Temp (C)	16.5
S6	09 Apr 2020	Wave Height Low (ft)	2
S6	09 Apr 2020	High Tide (ft)	4.7
S6	09 Apr 2020	High Tide Time	1053
S6	09 Apr 2020	Low Tide (ft)	-0.9
S6	09 Apr 2020	Low Tide Time	450
S6	09 Apr 2020	Comments	Resample; Kelp; Algae; Water turbid
S6	11 Apr 2020	Arrive Time	830
S6	11 Apr 2020	Weather	Sunny
S6	11 Apr 2020	Wind Speed (kts)	0.5
S6	11 Apr 2020	Wind Dir	W
S6	11 Apr 2020	Animal Life	2 Godwits
S6	11 Apr 2020	Floatables	Foam; Film
S6	11 Apr 2020	Water Color	Brown
S6	11 Apr 2020	Current Direction	N
S6	11 Apr 2020	Water Temp (C)	17
S6	11 Apr 2020	Wave Height Low (ft)	1.5
S6	11 Apr 2020	High Tide (ft)	3.5
S6	11 Apr 2020	High Tide Time	1251
S6	11 Apr 2020	Low Tide (ft)	-0.6
S6	11 Apr 2020	Low Tide Time	637
S6	11 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water clear
S6	13 Apr 2020	Arrive Time	918
S6	13 Apr 2020	Weather	Drizzle
S6	13 Apr 2020	Wind Speed (kts)	1.1
S6	13 Apr 2020	Wind Dir	E

Station	Date	Parameter	Value
S6	13 Apr 2020	Animal Life	2 Godwits; 8 Grebes
S6	13 Apr 2020	Floatables	None
S6	13 Apr 2020	Water Color	Brown
S6	13 Apr 2020	Current Direction	S
S6	13 Apr 2020	Water Temp (C)	17.5
S6	13 Apr 2020	Wave Height Low (ft)	1
S6	13 Apr 2020	High Tide (ft)	3
S6	13 Apr 2020	High Tide Time	1624
S6	13 Apr 2020	Low Tide (ft)	0
S6	13 Apr 2020	Low Tide Time	902
S6	13 Apr 2020	Comments	Resample; Debris; Water turbid
S6	14 Apr 2020	Arrive Time	951
S6	14 Apr 2020	Weather	Partly Cloudy
S6	14 Apr 2020	Wind Speed (kts)	9.3
S6	14 Apr 2020	Wind Dir	N
S6	14 Apr 2020	Animal Life	10 Godwits
S6	14 Apr 2020	Floatables	None
S6	14 Apr 2020	Water Color	Green
S6	14 Apr 2020	Current Direction	S
S6	14 Apr 2020	Water Temp (C)	19
S6	14 Apr 2020	Wave Height Low (ft)	1
S6	14 Apr 2020	High Tide (ft)	4.4
S6	14 Apr 2020	High Tide Time	224
S6	14 Apr 2020	Low Tide (ft)	0.1
S6	14 Apr 2020	Low Tide Time	1031
S6	14 Apr 2020	Comments	1 Tractor; Water turbid
S6	16 Apr 2020	Arrive Time	858
S6	16 Apr 2020	Weather	Foggy
S6	16 Apr 2020	Wind Speed (kts)	5.3
S6	16 Apr 2020	Wind Dir	W
S6	16 Apr 2020	Animal Life	9 Godwits
S6	16 Apr 2020	Floatables	Foam; Film
S6	16 Apr 2020	Water Color	Green
S6	16 Apr 2020	Current Direction	N
S6	16 Apr 2020	Water Temp (C)	17.3
S6	16 Apr 2020	Wave Height Low (ft)	1
S6	16 Apr 2020	High Tide (ft)	4.2
S6	16 Apr 2020	High Tide Time	528
S6	16 Apr 2020	Low Tide (ft)	0
S6	16 Apr 2020	Low Tide Time	1242
S6	16 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water clear
S6	17 Apr 2020	Arrive Time	1045
S6	17 Apr 2020	Weather	Cloudy
S6	17 Apr 2020	Wind Speed (kts)	6.9
S6	17 Apr 2020	Wind Dir	W
S6	17 Apr 2020	Animal Life	12 Godwits
S6	17 Apr 2020	Floatables	Foam
S6	17 Apr 2020	Water Color	Green
S6	17 Apr 2020	Current Direction	S
S6	17 Apr 2020	Water Temp (C)	17.8
S6	17 Apr 2020	Wave Height Low (ft)	3
S6	17 Apr 2020	High Tide (ft)	4.3

Station	Date	Parameter	Value
S6	17 Apr 2020	High Tide Time	631
S6	17 Apr 2020	Low Tide (ft)	0
S6	17 Apr 2020	Low Tide Time	1322
S6	17 Apr 2020	Comments	Resample; Sewage-like odor; Water turbid
S6	19 Apr 2020	Arrive Time	901
S6	19 Apr 2020	Weather	Overcast
S6	19 Apr 2020	Wind Speed (kts)	4
S6	19 Apr 2020	Wind Dir	N
S6	19 Apr 2020	Animal Life	1 Godwit
S6	19 Apr 2020	Floatables	Foam
S6	19 Apr 2020	Water Color	Green
S6	19 Apr 2020	Current Direction	S
S6	19 Apr 2020	Water Temp (C)	14.6
S6	19 Apr 2020	Wave Height Low (ft)	1
S6	19 Apr 2020	High Tide (ft)	4.5
S6	19 Apr 2020	High Tide Time	757
S6	19 Apr 2020	Low Tide (ft)	0.2
S6	19 Apr 2020	Low Tide Time	1419
S6	19 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S6	21 Apr 2020	Arrive Time	937
S6	21 Apr 2020	Weather	Sunny
S6	21 Apr 2020	Wind Speed (kts)	4
S6	21 Apr 2020	Wind Dir	W
S6	21 Apr 2020	Animal Life	1 Godwit
S6	21 Apr 2020	Floatables	Foam
S6	21 Apr 2020	Water Color	Brown
S6	21 Apr 2020	Current Direction	S
S6	21 Apr 2020	Water Temp (C)	14.4
S6	21 Apr 2020	Wave Height Low (ft)	2
S6	21 Apr 2020	High Tide (ft)	4.4
S6	21 Apr 2020	High Tide Time	904
S6	21 Apr 2020	Low Tide (ft)	0.5
S6	21 Apr 2020	Low Tide Time	1506
S6	21 Apr 2020	Comments	Kelp; Seagrass; Debris; Water turbid
S6	23 Apr 2020	Arrive Time	749
S6	23 Apr 2020	Weather	Sunny
S6	23 Apr 2020	Wind Speed (kts)	0
S6	23 Apr 2020	Wind Dir	
S6	23 Apr 2020	Animal Life	1 Godwit; 1 Sanderling
S6	23 Apr 2020	Floatables	Foam; Film
S6	23 Apr 2020	Water Color	Brown
S6	23 Apr 2020	Current Direction	S
S6	23 Apr 2020	Water Temp (C)	14.4
S6	23 Apr 2020	Wave Height Low (ft)	2
S6	23 Apr 2020	High Tide (ft)	4
S6	23 Apr 2020	High Tide Time	1012
S6	23 Apr 2020	Low Tide (ft)	-0.1
S6	23 Apr 2020	Low Tide Time	411
S6	23 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water turbid
S6	24 Apr 2020	Arrive Time	855
S6	24 Apr 2020	Weather	Hazy

Station	Date	Parameter	Value
S6	24 Apr 2020	Wind Speed (kts)	4
S6	24 Apr 2020	Wind Dir	NE
S6	24 Apr 2020	Animal Life	None
S6	24 Apr 2020	Floatables	Foam; Film
S6	24 Apr 2020	Water Color	Brown
S6	24 Apr 2020	Current Direction	S
S6	24 Apr 2020	Water Temp (C)	16
S6	24 Apr 2020	Wave Height Low (ft)	4
S6	24 Apr 2020	High Tide (ft)	3.8
S6	24 Apr 2020	High Tide Time	1049
S6	24 Apr 2020	Low Tide (ft)	-0.2
S6	24 Apr 2020	Low Tide Time	444
S6	24 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water turbid
S6	28 Apr 2020	Arrive Time	914
S6	28 Apr 2020	Weather	Hazy
S6	28 Apr 2020	Wind Speed (kts)	1.5
S6	28 Apr 2020	Wind Dir	W
S6	28 Apr 2020	Animal Life	1 Dog
S6	28 Apr 2020	Floatables	Foam; Film
S6	28 Apr 2020	Water Color	Red
S6	28 Apr 2020	Current Direction	N
S6	28 Apr 2020	Water Temp (C)	20.5
S6	28 Apr 2020	Wave Height Low (ft)	2
S6	28 Apr 2020	High Tide (ft)	2.8
S6	28 Apr 2020	High Tide Time	1511
S6	28 Apr 2020	Low Tide (ft)	0.2
S6	28 Apr 2020	Low Tide Time	755
S6	28 Apr 2020	Comments	Kelp; Seagrass; Algae; Debris; 5 Persons; 1 Surfer; Water turbid
S6	30 Apr 2020	Arrive Time	953
S6	30 Apr 2020	Weather	Overcast
S6	30 Apr 2020	Wind Speed (kts)	3.4
S6	30 Apr 2020	Wind Dir	W
S6	30 Apr 2020	Animal Life	None
S6	30 Apr 2020	Floatables	Foam; Film
S6	30 Apr 2020	Water Color	Red
S6	30 Apr 2020	Current Direction	S
S6	30 Apr 2020	Water Temp (C)	20.8
S6	30 Apr 2020	Wave Height Low (ft)	2
S6	30 Apr 2020	High Tide (ft)	4.3
S6	30 Apr 2020	High Tide Time	215
S6	30 Apr 2020	Low Tide (ft)	0.1
S6	30 Apr 2020	Low Tide Time	1028
S6	30 Apr 2020	Comments	Resample; Kelp; Seagrass; Algae; 3 Persons; Water turbid
S8	07 Apr 2020	Arrive Time	811
S8	07 Apr 2020	Weather	Drizzle
S8	07 Apr 2020	Wind Speed (kts)	4.4
S8	07 Apr 2020	Wind Dir	E
S8	07 Apr 2020	Animal Life	None
S8	07 Apr 2020	Floatables	None
S8	07 Apr 2020	Water Color	Green
S8	07 Apr 2020	Current Direction	S
S8	07 Apr 2020	Water Temp (C)	16.4

Station	Date	Parameter	Value
S8	07 Apr 2020	Wave Height Low (ft)	2
S8	07 Apr 2020	High Tide (ft)	5.6
S8	07 Apr 2020	High Tide Time	915
S8	07 Apr 2020	Low Tide (ft)	-0.3
S8	07 Apr 2020	Low Tide Time	316
S8	07 Apr 2020	Comments	Site inaccessible due to COVID-19 beach closure; Kelp; Seagrass; Debris; Water clear
S8	09 Apr 2020	Arrive Time	857
S8	09 Apr 2020	Weather	Cloudy
S8	09 Apr 2020	Wind Speed (kts)	0
S8	09 Apr 2020	Wind Dir	
S8	09 Apr 2020	Animal Life	None
S8	09 Apr 2020	Floatables	None
S8	09 Apr 2020	Water Color	Green
S8	09 Apr 2020	Current Direction	
S8	09 Apr 2020	Water Temp (C)	0
S8	09 Apr 2020	Wave Height Low (ft)	2
S8	09 Apr 2020	High Tide (ft)	4.7
S8	09 Apr 2020	High Tide Time	1053
S8	09 Apr 2020	Low Tide (ft)	-0.9
S8	09 Apr 2020	Low Tide Time	450
S8	09 Apr 2020	Comments	Resample; Water turbid; Site inaccessible due to COVID-19 beach closure
S8	10 Apr 2020	Arrive Time	1520
S8	10 Apr 2020	Weather	Cloudy
S8	10 Apr 2020	Wind Speed (kts)	0
S8	10 Apr 2020	Wind Dir	
S8	10 Apr 2020	Animal Life	None
S8	10 Apr 2020	Floatables	None
S8	10 Apr 2020	Water Color	Green
S8	10 Apr 2020	Current Direction	
S8	10 Apr 2020	Water Temp (C)	0
S8	10 Apr 2020	Wave Height Low (ft)	0
S8	10 Apr 2020	High Tide (ft)	4.1
S8	10 Apr 2020	High Tide Time	1147
S8	10 Apr 2020	Low Tide (ft)	1
S8	10 Apr 2020	Low Tide Time	1720
S8	10 Apr 2020	Comments	Water clear; Site inaccessible due to COVID-19 beach closure
S8	11 Apr 2020	Arrive Time	907
S8	11 Apr 2020	Weather	Sunny
S8	11 Apr 2020	Wind Speed (kts)	2.7
S8	11 Apr 2020	Wind Dir	W
S8	11 Apr 2020	Animal Life	4 Godwits
S8	11 Apr 2020	Floatables	Film
S8	11 Apr 2020	Water Color	Green
S8	11 Apr 2020	Current Direction	N
S8	11 Apr 2020	Water Temp (C)	20.3
S8	11 Apr 2020	Wave Height Low (ft)	1.5
S8	11 Apr 2020	High Tide (ft)	3.5
S8	11 Apr 2020	High Tide Time	1251
S8	11 Apr 2020	Low Tide (ft)	-0.6
S8	11 Apr 2020	Low Tide Time	637

Station	Date	Parameter	Value
S8	11 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear; 1 car on beach
S8	13 Apr 2020	Arrive Time	1004
S8	13 Apr 2020	Weather	Cloudy
S8	13 Apr 2020	Wind Speed (kts)	5.2
S8	13 Apr 2020	Wind Dir	SE
S8	13 Apr 2020	Animal Life	60 Grebes
S8	13 Apr 2020	Floatables	None
S8	13 Apr 2020	Water Color	Brown
S8	13 Apr 2020	Current Direction	N
S8	13 Apr 2020	Water Temp (C)	17.8
S8	13 Apr 2020	Wave Height Low (ft)	1
S8	13 Apr 2020	High Tide (ft)	3
S8	13 Apr 2020	High Tide Time	1624
S8	13 Apr 2020	Low Tide (ft)	0
S8	13 Apr 2020	Low Tide Time	902
S8	13 Apr 2020	Comments	Resample; 1 Person; Water turbid
S8	14 Apr 2020	Arrive Time	1048
S8	14 Apr 2020	Weather	Sunny
S8	14 Apr 2020	Wind Speed (kts)	9.5
S8	14 Apr 2020	Wind Dir	NW
S8	14 Apr 2020	Animal Life	300 Grebes
S8	14 Apr 2020	Floatables	None
S8	14 Apr 2020	Water Color	Brown
S8	14 Apr 2020	Current Direction	S
S8	14 Apr 2020	Water Temp (C)	19.1
S8	14 Apr 2020	Wave Height Low (ft)	1
S8	14 Apr 2020	High Tide (ft)	3.3
S8	14 Apr 2020	High Tide Time	1812
S8	14 Apr 2020	Low Tide (ft)	0.1
S8	14 Apr 2020	Low Tide Time	1031
S8	14 Apr 2020	Comments	Water turbid
S8	21 Apr 2020	Arrive Time	825
S8	21 Apr 2020	Weather	Partly Cloudy
S8	21 Apr 2020	Wind Speed (kts)	2.9
S8	21 Apr 2020	Wind Dir	W
S8	21 Apr 2020	Animal Life	None
S8	21 Apr 2020	Floatables	None
S8	21 Apr 2020	Water Color	Brown
S8	21 Apr 2020	Current Direction	S
S8	21 Apr 2020	Water Temp (C)	14
S8	21 Apr 2020	Wave Height Low (ft)	2
S8	21 Apr 2020	High Tide (ft)	4.4
S8	21 Apr 2020	High Tide Time	904
S8	21 Apr 2020	Low Tide (ft)	0.3
S8	21 Apr 2020	Low Tide Time	310
S8	21 Apr 2020	Comments	Kelp; Seagrass; Water clear
S8	28 Apr 2020	Arrive Time	818
S8	28 Apr 2020	Weather	Foggy
S8	28 Apr 2020	Wind Speed (kts)	2.6
S8	28 Apr 2020	Wind Dir	SW
S8	28 Apr 2020	Animal Life	36 Plovers; 47 Terns

Station	Date	Parameter	Value
S8	28 Apr 2020	Floatables	Foam
S8	28 Apr 2020	Water Color	Red
S8	28 Apr 2020	Current Direction	N
S8	28 Apr 2020	Water Temp (C)	20.5
S8	28 Apr 2020	Wave Height Low (ft)	2
S8	28 Apr 2020	High Tide (ft)	2.8
S8	28 Apr 2020	High Tide Time	1511
S8	28 Apr 2020	Low Tide (ft)	0.2
S8	28 Apr 2020	Low Tide Time	755
S8	28 Apr 2020	Comments	Kelp; Seagrass; Water turbid
S8	30 Apr 2020	Arrive Time	821
S8	30 Apr 2020	Weather	Drizzle
S8	30 Apr 2020	Wind Speed (kts)	4.4
S8	30 Apr 2020	Wind Dir	W
S8	30 Apr 2020	Animal Life	360 Plovers
S8	30 Apr 2020	Floatables	Foam; Film
S8	30 Apr 2020	Water Color	Red
S8	30 Apr 2020	Current Direction	S
S8	30 Apr 2020	Water Temp (C)	21.1
S8	30 Apr 2020	Wave Height Low (ft)	2
S8	30 Apr 2020	High Tide (ft)	4.3
S8	30 Apr 2020	High Tide Time	215
S8	30 Apr 2020	Low Tide (ft)	0.1
S8	30 Apr 2020	Low Tide Time	1028
S8	30 Apr 2020	Comments	Resample; Kelp; Seagrass; Algae; 1 Person; Water turbid
S9	07 Apr 2020	Arrive Time	738
S9	07 Apr 2020	Weather	Drizzle
S9	07 Apr 2020	Wind Speed (kts)	1.7
S9	07 Apr 2020	Wind Dir	S
S9	07 Apr 2020	Animal Life	3 Godwits
S9	07 Apr 2020	Floatables	Foam
S9	07 Apr 2020	Water Color	Green
S9	07 Apr 2020	Current Direction	S
S9	07 Apr 2020	Water Temp (C)	16.9
S9	07 Apr 2020	Wave Height Low (ft)	2
S9	07 Apr 2020	High Tide (ft)	5.6
S9	07 Apr 2020	High Tide Time	915
S9	07 Apr 2020	Low Tide (ft)	-0.3
S9	07 Apr 2020	Low Tide Time	316
S9	07 Apr 2020	Comments	Kelp; Seagrass; Debris; Sewage-like odor; Water clear
S9	09 Apr 2020	Arrive Time	828
S9	09 Apr 2020	Weather	Cloudy
S9	09 Apr 2020	Wind Speed (kts)	12.6
S9	09 Apr 2020	Wind Dir	S
S9	09 Apr 2020	Animal Life	None
S9	09 Apr 2020	Floatables	Foam
S9	09 Apr 2020	Water Color	Brown
S9	09 Apr 2020	Current Direction	N
S9	09 Apr 2020	Water Temp (C)	15.9
S9	09 Apr 2020	Wave Height Low (ft)	2
S9	09 Apr 2020	High Tide (ft)	4.7
S9	09 Apr 2020	High Tide Time	1053

Station	Date	Parameter	Value
S9	09 Apr 2020	Low Tide (ft)	-0.9
S9	09 Apr 2020	Low Tide Time	450
S9	09 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water turbid
S9	11 Apr 2020	Arrive Time	931
S9	11 Apr 2020	Weather	Sunny
S9	11 Apr 2020	Wind Speed (kts)	2.1
S9	11 Apr 2020	Wind Dir	W
S9	11 Apr 2020	Animal Life	None
S9	11 Apr 2020	Floatables	Foam; Film
S9	11 Apr 2020	Water Color	Green
S9	11 Apr 2020	Current Direction	N
S9	11 Apr 2020	Water Temp (C)	18.1
S9	11 Apr 2020	Wave Height Low (ft)	1
S9	11 Apr 2020	High Tide (ft)	3.5
S9	11 Apr 2020	High Tide Time	1251
S9	11 Apr 2020	Low Tide (ft)	-0.6
S9	11 Apr 2020	Low Tide Time	637
S9	11 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S9	13 Apr 2020	Arrive Time	1026
S9	13 Apr 2020	Weather	Drizzle
S9	13 Apr 2020	Wind Speed (kts)	5.2
S9	13 Apr 2020	Wind Dir	W
S9	13 Apr 2020	Animal Life	3 Godwits; 100 Grebes; 1 Seagull
S9	13 Apr 2020	Floatables	None
S9	13 Apr 2020	Water Color	Green
S9	13 Apr 2020	Current Direction	S
S9	13 Apr 2020	Water Temp (C)	18.1
S9	13 Apr 2020	Wave Height Low (ft)	1
S9	13 Apr 2020	High Tide (ft)	3
S9	13 Apr 2020	High Tide Time	1624
S9	13 Apr 2020	Low Tide (ft)	0
S9	13 Apr 2020	Low Tide Time	902
S9	13 Apr 2020	Comments	Resample; Kelp; Water clear
S9	14 Apr 2020	Arrive Time	1126
S9	14 Apr 2020	Weather	Sunny
S9	14 Apr 2020	Wind Speed (kts)	10.3
S9	14 Apr 2020	Wind Dir	N
S9	14 Apr 2020	Animal Life	17 Seagulls
S9	14 Apr 2020	Floatables	None
S9	14 Apr 2020	Water Color	Brown
S9	14 Apr 2020	Current Direction	S
S9	14 Apr 2020	Water Temp (C)	19.3
S9	14 Apr 2020	Wave Height Low (ft)	1
S9	14 Apr 2020	High Tide (ft)	3.3
S9	14 Apr 2020	High Tide Time	1812
S9	14 Apr 2020	Low Tide (ft)	0.1
S9	14 Apr 2020	Low Tide Time	1031
S9	14 Apr 2020	Comments	1 Tractor; Water turbid
S9	21 Apr 2020	Arrive Time	757
S9	21 Apr 2020	Weather	Partly Cloudy
S9	21 Apr 2020	Wind Speed (kts)	2.7

Station	Date	Parameter	Value
S9	21 Apr 2020	Wind Dir	W
S9	21 Apr 2020	Animal Life	1 Godwit; 1 Tern
S9	21 Apr 2020	Floatables	Foam
S9	21 Apr 2020	Water Color	Green
S9	21 Apr 2020	Current Direction	S
S9	21 Apr 2020	Water Temp (C)	13.6
S9	21 Apr 2020	Wave Height Low (ft)	1
S9	21 Apr 2020	High Tide (ft)	4.4
S9	21 Apr 2020	High Tide Time	904
S9	21 Apr 2020	Low Tide (ft)	0.3
S9	21 Apr 2020	Low Tide Time	310
S9	21 Apr 2020	Comments	Kelp; Seagrass; Water clear
S9	28 Apr 2020	Arrive Time	749
S9	28 Apr 2020	Weather	Foggy
S9	28 Apr 2020	Wind Speed (kts)	3.6
S9	28 Apr 2020	Wind Dir	SW
S9	28 Apr 2020	Animal Life	None
S9	28 Apr 2020	Floatables	Foam
S9	28 Apr 2020	Water Color	Brown
S9	28 Apr 2020	Current Direction	N
S9	28 Apr 2020	Water Temp (C)	20.5
S9	28 Apr 2020	Wave Height Low (ft)	2
S9	28 Apr 2020	High Tide (ft)	2.8
S9	28 Apr 2020	High Tide Time	1511
S9	28 Apr 2020	Low Tide (ft)	0.2
S9	28 Apr 2020	Low Tide Time	755
S9	28 Apr 2020	Comments	Kelp; 2 Joggers; 2 Persons; 8 Surfers; Water turbid
S9	30 Apr 2020	Arrive Time	745
S9	30 Apr 2020	Weather	Overcast
S9	30 Apr 2020	Wind Speed (kts)	3.4
S9	30 Apr 2020	Wind Dir	W
S9	30 Apr 2020	Animal Life	15 Seagulls
S9	30 Apr 2020	Floatables	Foam; Film
S9	30 Apr 2020	Water Color	Red
S9	30 Apr 2020	Current Direction	S
S9	30 Apr 2020	Water Temp (C)	20.8
S9	30 Apr 2020	Wave Height Low (ft)	1
S9	30 Apr 2020	High Tide (ft)	4.3
S9	30 Apr 2020	High Tide Time	215
S9	30 Apr 2020	Low Tide (ft)	0.1
S9	30 Apr 2020	Low Tide Time	1028
S9	30 Apr 2020	Comments	Resample; Kelp; Seagrass; Algae; 1 Jogger; 5 Persons; 3 Surfers; Water turbid
S10	01 Apr 2020	Arrive Time	856
S10	01 Apr 2020	Weather	Overcast
S10	01 Apr 2020	Wind Speed (kts)	6
S10	01 Apr 2020	Wind Dir	S
S10	01 Apr 2020	Animal Life	3 Plovers; 1 Seagull
S10	01 Apr 2020	Floatables	None
S10	01 Apr 2020	Water Color	Green
S10	01 Apr 2020	Current Direction	N
S10	01 Apr 2020	Water Temp (C)	13.8

Station	Date	Parameter	Value
S10	01 Apr 2020	Wave Height Low (ft)	2
S10	01 Apr 2020	High Tide (ft)	4.2
S10	01 Apr 2020	High Tide Time	248
S10	01 Apr 2020	Low Tide (ft)	0.4
S10	01 Apr 2020	Low Tide Time	1119
S10	01 Apr 2020	Comments	Resample; Kelp; Seagrass; Water clear
S10	03 Apr 2020	Arrive Time	857
S10	03 Apr 2020	Weather	Partly Cloudy
S10	03 Apr 2020	Wind Speed (kts)	1.7
S10	03 Apr 2020	Wind Dir	E
S10	03 Apr 2020	Animal Life	1 Godwit
S10	03 Apr 2020	Floatables	None
S10	03 Apr 2020	Water Color	Green
S10	03 Apr 2020	Current Direction	N
S10	03 Apr 2020	Water Temp (C)	16
S10	03 Apr 2020	Wave Height Low (ft)	2
S10	03 Apr 2020	High Tide (ft)	4.7
S10	03 Apr 2020	High Tide Time	549
S10	03 Apr 2020	Low Tide (ft)	-0.5
S10	03 Apr 2020	Low Tide Time	1306
S10	03 Apr 2020	Comments	Resample; 3 Surfers; Water turbid
S10	05 Apr 2020	Arrive Time	953
S10	05 Apr 2020	Weather	Overcast
S10	05 Apr 2020	Wind Speed (kts)	5
S10	05 Apr 2020	Wind Dir	S
S10	05 Apr 2020	Animal Life	9 Godwits
S10	05 Apr 2020	Floatables	Foam; Film
S10	05 Apr 2020	Water Color	Green
S10	05 Apr 2020	Current Direction	N
S10	05 Apr 2020	Water Temp (C)	16.4
S10	05 Apr 2020	Wave Height Low (ft)	2
S10	05 Apr 2020	High Tide (ft)	5.5
S10	05 Apr 2020	High Tide Time	739
S10	05 Apr 2020	Low Tide (ft)	-0.9
S10	05 Apr 2020	Low Tide Time	1422
S10	05 Apr 2020	Comments	Resample; Kelp; Seagrass; Sewage-like odor; 1 Person; Water clear
S10	07 Apr 2020	Arrive Time	1027
S10	07 Apr 2020	Weather	Overcast
S10	07 Apr 2020	Wind Speed (kts)	3.1
S10	07 Apr 2020	Wind Dir	E
S10	07 Apr 2020	Animal Life	10 Plovers
S10	07 Apr 2020	Floatables	Foam
S10	07 Apr 2020	Water Color	Brown
S10	07 Apr 2020	Current Direction	S
S10	07 Apr 2020	Water Temp (C)	17.4
S10	07 Apr 2020	Wave Height Low (ft)	3
S10	07 Apr 2020	High Tide (ft)	5.6
S10	07 Apr 2020	High Tide Time	915
S10	07 Apr 2020	Low Tide (ft)	-0.6
S10	07 Apr 2020	Low Tide Time	1533
S10	07 Apr 2020	Comments	Kelp; Seagrass; Debris; Water turbid

Station	Date	Parameter	Value
S10	09 Apr 2020	Arrive Time	1028
S10	09 Apr 2020	Weather	Partly Cloudy
S10	09 Apr 2020	Wind Speed (kts)	7.7
S10	09 Apr 2020	Wind Dir	SW
S10	09 Apr 2020	Animal Life	None
S10	09 Apr 2020	Floatables	Foam; Film
S10	09 Apr 2020	Water Color	Green
S10	09 Apr 2020	Current Direction	N
S10	09 Apr 2020	Water Temp (C)	17.1
S10	09 Apr 2020	Wave Height Low (ft)	2
S10	09 Apr 2020	High Tide (ft)	4.7
S10	09 Apr 2020	High Tide Time	1053
S10	09 Apr 2020	Low Tide (ft)	-0.9
S10	09 Apr 2020	Low Tide Time	450
S10	09 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S10	11 Apr 2020	Arrive Time	731
S10	11 Apr 2020	Weather	Partly Cloudy
S10	11 Apr 2020	Wind Speed (kts)	2.5
S10	11 Apr 2020	Wind Dir	E
S10	11 Apr 2020	Animal Life	None
S10	11 Apr 2020	Floatables	Foam; Film
S10	11 Apr 2020	Water Color	Green
S10	11 Apr 2020	Current Direction	N
S10	11 Apr 2020	Water Temp (C)	14.8
S10	11 Apr 2020	Wave Height Low (ft)	1
S10	11 Apr 2020	High Tide (ft)	3.5
S10	11 Apr 2020	High Tide Time	1251
S10	11 Apr 2020	Low Tide (ft)	-0.6
S10	11 Apr 2020	Low Tide Time	637
S10	11 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S10	13 Apr 2020	Arrive Time	754
S10	13 Apr 2020	Weather	Drizzle
S10	13 Apr 2020	Wind Speed (kts)	0.9
S10	13 Apr 2020	Wind Dir	W
S10	13 Apr 2020	Animal Life	1 Godwit; 3 Seagulls
S10	13 Apr 2020	Floatables	None
S10	13 Apr 2020	Water Color	Green
S10	13 Apr 2020	Current Direction	S
S10	13 Apr 2020	Water Temp (C)	17.6
S10	13 Apr 2020	Wave Height Low (ft)	1
S10	13 Apr 2020	High Tide (ft)	4.9
S10	13 Apr 2020	High Tide Time	109
S10	13 Apr 2020	Low Tide (ft)	0
S10	13 Apr 2020	Low Tide Time	902
S10	13 Apr 2020	Comments	Resample; Kelp; Debris; Water clear
S10	14 Apr 2020	Arrive Time	808
S10	14 Apr 2020	Weather	Partly Cloudy
S10	14 Apr 2020	Wind Speed (kts)	3.8
S10	14 Apr 2020	Wind Dir	N
S10	14 Apr 2020	Animal Life	1 Godwit
S10	14 Apr 2020	Floatables	None

Station	Date	Parameter	Value
S10	14 Apr 2020	Water Color	Green
S10	14 Apr 2020	Current Direction	S
S10	14 Apr 2020	Water Temp (C)	16.8
S10	14 Apr 2020	Wave Height Low (ft)	2
S10	14 Apr 2020	High Tide (ft)	4.4
S10	14 Apr 2020	High Tide Time	224
S10	14 Apr 2020	Low Tide (ft)	0.1
S10	14 Apr 2020	Low Tide Time	1031
S10	14 Apr 2020	Comments	Debris; Water turbid
S10	16 Apr 2020	Arrive Time	751
S10	16 Apr 2020	Weather	Partly Cloudy
S10	16 Apr 2020	Wind Speed (kts)	1.3
S10	16 Apr 2020	Wind Dir	E
S10	16 Apr 2020	Animal Life	None
S10	16 Apr 2020	Floatables	Foam; Film
S10	16 Apr 2020	Water Color	Green
S10	16 Apr 2020	Current Direction	N
S10	16 Apr 2020	Water Temp (C)	15.9
S10	16 Apr 2020	Wave Height Low (ft)	2
S10	16 Apr 2020	High Tide (ft)	4.2
S10	16 Apr 2020	High Tide Time	528
S10	16 Apr 2020	Low Tide (ft)	0
S10	16 Apr 2020	Low Tide Time	1242
S10	16 Apr 2020	Comments	Resample; Seagrass; Debris; Water clear
S10	21 Apr 2020	Arrive Time	1025
S10	21 Apr 2020	Weather	Sunny
S10	21 Apr 2020	Wind Speed (kts)	4.6
S10	21 Apr 2020	Wind Dir	W
S10	21 Apr 2020	Animal Life	1 Godwit; 1 Plover
S10	21 Apr 2020	Floatables	Foam; Film
S10	21 Apr 2020	Water Color	Green
S10	21 Apr 2020	Current Direction	S
S10	21 Apr 2020	Water Temp (C)	14.4
S10	21 Apr 2020	Wave Height Low (ft)	3
S10	21 Apr 2020	High Tide (ft)	4.4
S10	21 Apr 2020	High Tide Time	904
S10	21 Apr 2020	Low Tide (ft)	0.5
S10	21 Apr 2020	Low Tide Time	1506
S10	21 Apr 2020	Comments	Kelp; Seagrass; Debris; Sewage-like odor; Water turbid
S10	23 Apr 2020	Arrive Time	848
S10	23 Apr 2020	Weather	Sunny
S10	23 Apr 2020	Wind Speed (kts)	3.4
S10	23 Apr 2020	Wind Dir	W
S10	23 Apr 2020	Animal Life	4 Godwits; 2 Plovers
S10	23 Apr 2020	Floatables	Foam; Film
S10	23 Apr 2020	Water Color	Green
S10	23 Apr 2020	Current Direction	S
S10	23 Apr 2020	Water Temp (C)	14.6
S10	23 Apr 2020	Wave Height Low (ft)	3
S10	23 Apr 2020	High Tide (ft)	4
S10	23 Apr 2020	High Tide Time	1012
S10	23 Apr 2020	Low Tide (ft)	-0.1

Station	Date	Parameter	Value
S10	23 Apr 2020	Low Tide Time	411
S10	23 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water turbid
S10	24 Apr 2020	Arrive Time	953
S10	24 Apr 2020	Weather	Sunny
S10	24 Apr 2020	Wind Speed (kts)	8.1
S10	24 Apr 2020	Wind Dir	NE
S10	24 Apr 2020	Animal Life	3 Pelicans
S10	24 Apr 2020	Floatables	Foam; Film
S10	24 Apr 2020	Water Color	Brown
S10	24 Apr 2020	Current Direction	S
S10	24 Apr 2020	Water Temp (C)	15.7
S10	24 Apr 2020	Wave Height Low (ft)	3
S10	24 Apr 2020	High Tide (ft)	3.8
S10	24 Apr 2020	High Tide Time	1049
S10	24 Apr 2020	Low Tide (ft)	-0.2
S10	24 Apr 2020	Low Tide Time	444
S10	24 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water turbid
S10	26 Apr 2020	Arrive Time	918
S10	26 Apr 2020	Weather	Hazy
S10	26 Apr 2020	Wind Speed (kts)	2.3
S10	26 Apr 2020	Wind Dir	E
S10	26 Apr 2020	Animal Life	None
S10	26 Apr 2020	Floatables	Foam
S10	26 Apr 2020	Water Color	Brown
S10	26 Apr 2020	Current Direction	S
S10	26 Apr 2020	Water Temp (C)	17.8
S10	26 Apr 2020	Wave Height Low (ft)	3
S10	26 Apr 2020	High Tide (ft)	3.1
S10	26 Apr 2020	High Tide Time	1220
S10	26 Apr 2020	Low Tide (ft)	-0.1
S10	26 Apr 2020	Low Tide Time	602
S10	26 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S10	28 Apr 2020	Arrive Time	954
S10	28 Apr 2020	Weather	Sunny
S10	28 Apr 2020	Wind Speed (kts)	3.3
S10	28 Apr 2020	Wind Dir	W
S10	28 Apr 2020	Animal Life	1 Godwit; 1 Plover
S10	28 Apr 2020	Floatables	Foam; Film
S10	28 Apr 2020	Water Color	Red
S10	28 Apr 2020	Current Direction	N
S10	28 Apr 2020	Water Temp (C)	22
S10	28 Apr 2020	Wave Height Low (ft)	3
S10	28 Apr 2020	High Tide (ft)	2.8
S10	28 Apr 2020	High Tide Time	1511
S10	28 Apr 2020	Low Tide (ft)	0.2
S10	28 Apr 2020	Low Tide Time	755
S10	28 Apr 2020	Comments	Kelp; Seagrass; Algae; Debris; Water turbid
S10	30 Apr 2020	Arrive Time	1047
S10	30 Apr 2020	Weather	Overcast
S10	30 Apr 2020	Wind Speed (kts)	5.6
S10	30 Apr 2020	Wind Dir	W

Station	Date	Parameter	Value
S10	30 Apr 2020	Animal Life	23 Plovers
S10	30 Apr 2020	Floatables	Foam; Film
S10	30 Apr 2020	Water Color	Brown
S10	30 Apr 2020	Current Direction	N
S10	30 Apr 2020	Water Temp (C)	20.1
S10	30 Apr 2020	Wave Height Low (ft)	2
S10	30 Apr 2020	High Tide (ft)	3.4
S10	30 Apr 2020	High Tide Time	1756
S10	30 Apr 2020	Low Tide (ft)	0.1
S10	30 Apr 2020	Low Tide Time	1028
S10	30 Apr 2020	Comments	Resample; Kelp; Seagrass; Algae; Debris; Sewage-like odor; Water turbid
S11	07 Apr 2020	Arrive Time	918
S11	07 Apr 2020	Weather	Drizzle
S11	07 Apr 2020	Wind Speed (kts)	3.7
S11	07 Apr 2020	Wind Dir	E
S11	07 Apr 2020	Animal Life	3 Godwits
S11	07 Apr 2020	Floatables	Foam
S11	07 Apr 2020	Water Color	Brown
S11	07 Apr 2020	Current Direction	S
S11	07 Apr 2020	Water Temp (C)	17
S11	07 Apr 2020	Wave Height Low (ft)	3
S11	07 Apr 2020	High Tide (ft)	5.6
S11	07 Apr 2020	High Tide Time	915
S11	07 Apr 2020	Low Tide (ft)	-0.3
S11	07 Apr 2020	Low Tide Time	316
S11	07 Apr 2020	Comments	Kelp; Seagrass; Debris; Sewage-like odor; Water turbid
S11	09 Apr 2020	Arrive Time	930
S11	09 Apr 2020	Weather	Cloudy
S11	09 Apr 2020	Wind Speed (kts)	6.8
S11	09 Apr 2020	Wind Dir	S
S11	09 Apr 2020	Animal Life	3 Godwits; 26 Plovers
S11	09 Apr 2020	Floatables	None
S11	09 Apr 2020	Water Color	Green
S11	09 Apr 2020	Current Direction	N
S11	09 Apr 2020	Water Temp (C)	16.1
S11	09 Apr 2020	Wave Height Low (ft)	3
S11	09 Apr 2020	High Tide (ft)	4.7
S11	09 Apr 2020	High Tide Time	1053
S11	09 Apr 2020	Low Tide (ft)	-0.9
S11	09 Apr 2020	Low Tide Time	450
S11	09 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water turbid
S11	11 Apr 2020	Arrive Time	820
S11	11 Apr 2020	Weather	Sunny
S11	11 Apr 2020	Wind Speed (kts)	0.9
S11	11 Apr 2020	Wind Dir	E
S11	11 Apr 2020	Animal Life	1 Grebe
S11	11 Apr 2020	Floatables	Foam; Film
S11	11 Apr 2020	Water Color	Brown
S11	11 Apr 2020	Current Direction	N
S11	11 Apr 2020	Water Temp (C)	16.9
S11	11 Apr 2020	Wave Height Low (ft)	1

Station	Date	Parameter	Value
S11	11 Apr 2020	High Tide (ft)	3.5
S11	11 Apr 2020	High Tide Time	1251
S11	11 Apr 2020	Low Tide (ft)	-0.6
S11	11 Apr 2020	Low Tide Time	637
S11	11 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water turbid
S11	13 Apr 2020	Arrive Time	908
S11	13 Apr 2020	Weather	Moderate Rain
S11	13 Apr 2020	Wind Speed (kts)	0.7
S11	13 Apr 2020	Wind Dir	W
S11	13 Apr 2020	Animal Life	1 Godwit; 10 Seagulls; 2 Duck
S11	13 Apr 2020	Floatables	None
S11	13 Apr 2020	Water Color	Brown
S11	13 Apr 2020	Current Direction	S
S11	13 Apr 2020	Water Temp (C)	17.7
S11	13 Apr 2020	Wave Height Low (ft)	1
S11	13 Apr 2020	High Tide (ft)	3
S11	13 Apr 2020	High Tide Time	1624
S11	13 Apr 2020	Low Tide (ft)	0
S11	13 Apr 2020	Low Tide Time	902
S11	13 Apr 2020	Comments	Resample; Water turbid
S11	14 Apr 2020	Arrive Time	940
S11	14 Apr 2020	Weather	Partly Cloudy
S11	14 Apr 2020	Wind Speed (kts)	8.3
S11	14 Apr 2020	Wind Dir	N
S11	14 Apr 2020	Animal Life	9 Seagulls; 1 Tern
S11	14 Apr 2020	Floatables	None
S11	14 Apr 2020	Water Color	Brown
S11	14 Apr 2020	Current Direction	S
S11	14 Apr 2020	Water Temp (C)	18.7
S11	14 Apr 2020	Wave Height Low (ft)	1
S11	14 Apr 2020	High Tide (ft)	4.4
S11	14 Apr 2020	High Tide Time	224
S11	14 Apr 2020	Low Tide (ft)	0.1
S11	14 Apr 2020	Low Tide Time	1031
S11	14 Apr 2020	Comments	Kelp; Water turbid
S11	16 Apr 2020	Arrive Time	850
S11	16 Apr 2020	Weather	Foggy
S11	16 Apr 2020	Wind Speed (kts)	5
S11	16 Apr 2020	Wind Dir	W
S11	16 Apr 2020	Animal Life	None
S11	16 Apr 2020	Floatables	Foam; Dead Animals; Film
S11	16 Apr 2020	Water Color	Brown
S11	16 Apr 2020	Current Direction	N
S11	16 Apr 2020	Water Temp (C)	17.6
S11	16 Apr 2020	Wave Height Low (ft)	2
S11	16 Apr 2020	High Tide (ft)	4.2
S11	16 Apr 2020	High Tide Time	528
S11	16 Apr 2020	Low Tide (ft)	0
S11	16 Apr 2020	Low Tide Time	1242
S11	16 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water clear
S11	17 Apr 2020	Arrive Time	1033

Station	Date	Parameter	Value
S11	17 Apr 2020	Weather	Partly Cloudy
S11	17 Apr 2020	Wind Speed (kts)	7.5
S11	17 Apr 2020	Wind Dir	W
S11	17 Apr 2020	Animal Life	1 Seagull
S11	17 Apr 2020	Floatables	Foam
S11	17 Apr 2020	Water Color	Green
S11	17 Apr 2020	Current Direction	S
S11	17 Apr 2020	Water Temp (C)	17
S11	17 Apr 2020	Wave Height Low (ft)	3
S11	17 Apr 2020	High Tide (ft)	4.3
S11	17 Apr 2020	High Tide Time	631
S11	17 Apr 2020	Low Tide (ft)	0
S11	17 Apr 2020	Low Tide Time	1322
S11	17 Apr 2020	Comments	Resample; Sewage-like odor; Water turbid
S11	19 Apr 2020	Arrive Time	850
S11	19 Apr 2020	Weather	Overcast
S11	19 Apr 2020	Wind Speed (kts)	5.4
S11	19 Apr 2020	Wind Dir	NW
S11	19 Apr 2020	Animal Life	1 Plover
S11	19 Apr 2020	Floatables	None
S11	19 Apr 2020	Water Color	Green
S11	19 Apr 2020	Current Direction	S
S11	19 Apr 2020	Water Temp (C)	14.8
S11	19 Apr 2020	Wave Height Low (ft)	3
S11	19 Apr 2020	High Tide (ft)	4.5
S11	19 Apr 2020	High Tide Time	757
S11	19 Apr 2020	Low Tide (ft)	0.2
S11	19 Apr 2020	Low Tide Time	1419
S11	19 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S11	21 Apr 2020	Arrive Time	926
S11	21 Apr 2020	Weather	Sunny
S11	21 Apr 2020	Wind Speed (kts)	4.6
S11	21 Apr 2020	Wind Dir	W
S11	21 Apr 2020	Animal Life	None
S11	21 Apr 2020	Floatables	None
S11	21 Apr 2020	Water Color	Brown
S11	21 Apr 2020	Current Direction	S
S11	21 Apr 2020	Water Temp (C)	14.8
S11	21 Apr 2020	Wave Height Low (ft)	3
S11	21 Apr 2020	High Tide (ft)	4.4
S11	21 Apr 2020	High Tide Time	904
S11	21 Apr 2020	Low Tide (ft)	0.5
S11	21 Apr 2020	Low Tide Time	1506
S11	21 Apr 2020	Comments	Kelp; Seagrass; Debris; Water turbid
S11	23 Apr 2020	Arrive Time	744
S11	23 Apr 2020	Weather	Sunny
S11	23 Apr 2020	Wind Speed (kts)	1.7
S11	23 Apr 2020	Wind Dir	W
S11	23 Apr 2020	Animal Life	2 Godwits
S11	23 Apr 2020	Floatables	Foam; Film
S11	23 Apr 2020	Water Color	Brown
S11	23 Apr 2020	Current Direction	S

Station	Date	Parameter	Value
S11	23 Apr 2020	Water Temp (C)	14.7
S11	23 Apr 2020	Wave Height Low (ft)	2
S11	23 Apr 2020	High Tide (ft)	4
S11	23 Apr 2020	High Tide Time	1012
S11	23 Apr 2020	Low Tide (ft)	-0.1
S11	23 Apr 2020	Low Tide Time	411
S11	23 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water turbid
S11	24 Apr 2020	Arrive Time	847
S11	24 Apr 2020	Weather	Hazy
S11	24 Apr 2020	Wind Speed (kts)	5
S11	24 Apr 2020	Wind Dir	NW
S11	24 Apr 2020	Animal Life	1 Godwit; 3 Plovers
S11	24 Apr 2020	Floatables	Foam; Film
S11	24 Apr 2020	Water Color	Brown
S11	24 Apr 2020	Current Direction	S
S11	24 Apr 2020	Water Temp (C)	17.2
S11	24 Apr 2020	Wave Height Low (ft)	4
S11	24 Apr 2020	High Tide (ft)	3.8
S11	24 Apr 2020	High Tide Time	1049
S11	24 Apr 2020	Low Tide (ft)	-0.2
S11	24 Apr 2020	Low Tide Time	444
S11	24 Apr 2020	Comments	Resample; Kelp; Seagrass; Algae; Debris; Water turbid
S11	26 Apr 2020	Arrive Time	834
S11	26 Apr 2020	Weather	Foggy
S11	26 Apr 2020	Wind Speed (kts)	2.9
S11	26 Apr 2020	Wind Dir	W
S11	26 Apr 2020	Animal Life	2 Godwits; 1 Plover; 1 Tern
S11	26 Apr 2020	Floatables	Foam; Dead Animals
S11	26 Apr 2020	Water Color	Brown
S11	26 Apr 2020	Current Direction	S
S11	26 Apr 2020	Water Temp (C)	18.6
S11	26 Apr 2020	Wave Height Low (ft)	2
S11	26 Apr 2020	High Tide (ft)	3.1
S11	26 Apr 2020	High Tide Time	1220
S11	26 Apr 2020	Low Tide (ft)	-0.1
S11	26 Apr 2020	Low Tide Time	602
S11	26 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Water turbid
S11	28 Apr 2020	Arrive Time	909
S11	28 Apr 2020	Weather	Hazy
S11	28 Apr 2020	Wind Speed (kts)	1.9
S11	28 Apr 2020	Wind Dir	W
S11	28 Apr 2020	Animal Life	1 Dog; 7 Terns
S11	28 Apr 2020	Floatables	Foam; Film
S11	28 Apr 2020	Water Color	Brown
S11	28 Apr 2020	Current Direction	N
S11	28 Apr 2020	Water Temp (C)	19.4
S11	28 Apr 2020	Wave Height Low (ft)	2
S11	28 Apr 2020	High Tide (ft)	2.8
S11	28 Apr 2020	High Tide Time	1511
S11	28 Apr 2020	Low Tide (ft)	0.2
S11	28 Apr 2020	Low Tide Time	755
S11	28 Apr 2020	Comments	Kelp; Seagrass; Debris; 4 Persons; Water turbid

Station	Date	Parameter	Value
S11	30 Apr 2020	Arrive Time	942
S11	30 Apr 2020	Weather	Overcast
S11	30 Apr 2020	Wind Speed (kts)	3.8
S11	30 Apr 2020	Wind Dir	W
S11	30 Apr 2020	Animal Life	1 Dog
S11	30 Apr 2020	Floatables	Foam
S11	30 Apr 2020	Water Color	Red
S11	30 Apr 2020	Current Direction	N
S11	30 Apr 2020	Water Temp (C)	20.6
S11	30 Apr 2020	Wave Height Low (ft)	3
S11	30 Apr 2020	High Tide (ft)	4.3
S11	30 Apr 2020	High Tide Time	215
S11	30 Apr 2020	Low Tide (ft)	0.1
S11	30 Apr 2020	Low Tide Time	1028
S11	30 Apr 2020	Comments	Resample; Kelp; Seagrass; Algae; Debris; 7 Persons; Water turbid
S12	07 Apr 2020	Arrive Time	836
S12	07 Apr 2020	Weather	Drizzle
S12	07 Apr 2020	Wind Speed (kts)	1.4
S12	07 Apr 2020	Wind Dir	E
S12	07 Apr 2020	Animal Life	6 Godwits; 17 Sanderlings; 5 Terns; 1 Crow
S12	07 Apr 2020	Floatables	None
S12	07 Apr 2020	Water Color	Green
S12	07 Apr 2020	Current Direction	S
S12	07 Apr 2020	Water Temp (C)	16.9
S12	07 Apr 2020	Wave Height Low (ft)	3
S12	07 Apr 2020	High Tide (ft)	5.6
S12	07 Apr 2020	High Tide Time	915
S12	07 Apr 2020	Low Tide (ft)	-0.3
S12	07 Apr 2020	Low Tide Time	316
S12	07 Apr 2020	Comments	Kelp; Seagrass; Water clear
S12	09 Apr 2020	Arrive Time	859
S12	09 Apr 2020	Weather	Cloudy
S12	09 Apr 2020	Wind Speed (kts)	4.4
S12	09 Apr 2020	Wind Dir	SE
S12	09 Apr 2020	Animal Life	60 Godwits; 30 Plovers
S12	09 Apr 2020	Floatables	None
S12	09 Apr 2020	Water Color	Brown
S12	09 Apr 2020	Current Direction	N
S12	09 Apr 2020	Water Temp (C)	15.8
S12	09 Apr 2020	Wave Height Low (ft)	3
S12	09 Apr 2020	High Tide (ft)	4.7
S12	09 Apr 2020	High Tide Time	1053
S12	09 Apr 2020	Low Tide (ft)	-0.9
S12	09 Apr 2020	Low Tide Time	450
S12	09 Apr 2020	Comments	Resample; Kelp; Seagrass; Water turbid
S12	11 Apr 2020	Arrive Time	850
S12	11 Apr 2020	Weather	Sunny
S12	11 Apr 2020	Wind Speed (kts)	1.3
S12	11 Apr 2020	Wind Dir	W
S12	11 Apr 2020	Animal Life	1 Dog; 3 Coot
S12	11 Apr 2020	Floatables	Foam; Film

Station	Date	Parameter	Value
S12	11 Apr 2020	Water Color	Green
S12	11 Apr 2020	Current Direction	N
S12	11 Apr 2020	Water Temp (C)	18.1
S12	11 Apr 2020	Wave Height Low (ft)	1
S12	11 Apr 2020	High Tide (ft)	3.5
S12	11 Apr 2020	High Tide Time	1251
S12	11 Apr 2020	Low Tide (ft)	-0.6
S12	11 Apr 2020	Low Tide Time	637
S12	11 Apr 2020	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; 2 Persons; Water clear
S12	13 Apr 2020	Arrive Time	939
S12	13 Apr 2020	Weather	Drizzle
S12	13 Apr 2020	Wind Speed (kts)	3.6
S12	13 Apr 2020	Wind Dir	N
S12	13 Apr 2020	Animal Life	7 Godwits; 5 Grebes; 8 Sanderlings
S12	13 Apr 2020	Floatables	None
S12	13 Apr 2020	Water Color	Green
S12	13 Apr 2020	Current Direction	S
S12	13 Apr 2020	Water Temp (C)	17.4
S12	13 Apr 2020	Wave Height Low (ft)	1
S12	13 Apr 2020	High Tide (ft)	3
S12	13 Apr 2020	High Tide Time	1624
S12	13 Apr 2020	Low Tide (ft)	0
S12	13 Apr 2020	Low Tide Time	902
S12	13 Apr 2020	Comments	Resample; Water clear
S12	14 Apr 2020	Arrive Time	1011
S12	14 Apr 2020	Weather	Sunny
S12	14 Apr 2020	Wind Speed (kts)	9.5
S12	14 Apr 2020	Wind Dir	NW
S12	14 Apr 2020	Animal Life	11 Grebes; 5 Seagulls; 4 Terns
S12	14 Apr 2020	Floatables	None
S12	14 Apr 2020	Water Color	Green
S12	14 Apr 2020	Current Direction	S
S12	14 Apr 2020	Water Temp (C)	19.4
S12	14 Apr 2020	Wave Height Low (ft)	1
S12	14 Apr 2020	High Tide (ft)	4.4
S12	14 Apr 2020	High Tide Time	224
S12	14 Apr 2020	Low Tide (ft)	0.1
S12	14 Apr 2020	Low Tide Time	1031
S12	14 Apr 2020	Comments	Water clear
S12	21 Apr 2020	Arrive Time	846
S12	21 Apr 2020	Weather	Partly Cloudy
S12	21 Apr 2020	Wind Speed (kts)	2.1
S12	21 Apr 2020	Wind Dir	W
S12	21 Apr 2020	Animal Life	None
S12	21 Apr 2020	Floatables	None
S12	21 Apr 2020	Water Color	Green
S12	21 Apr 2020	Current Direction	S
S12	21 Apr 2020	Water Temp (C)	16.1
S12	21 Apr 2020	Wave Height Low (ft)	2
S12	21 Apr 2020	High Tide (ft)	4.4
S12	21 Apr 2020	High Tide Time	904

Station	Date	Parameter	Value
S12	21 Apr 2020	Low Tide (ft)	0.3
S12	21 Apr 2020	Low Tide Time	310
S12	21 Apr 2020	Comments	Kelp; Seagrass; Debris; Water clear
S12	28 Apr 2020	Arrive Time	835
S12	28 Apr 2020	Weather	Foggy
S12	28 Apr 2020	Wind Speed (kts)	2.7
S12	28 Apr 2020	Wind Dir	SW
S12	28 Apr 2020	Animal Life	1 Dog
S12	28 Apr 2020	Floatables	Foam; Film
S12	28 Apr 2020	Water Color	Red
S12	28 Apr 2020	Current Direction	N
S12	28 Apr 2020	Water Temp (C)	20.5
S12	28 Apr 2020	Wave Height Low (ft)	3
S12	28 Apr 2020	High Tide (ft)	2.8
S12	28 Apr 2020	High Tide Time	1511
S12	28 Apr 2020	Low Tide (ft)	0.2
S12	28 Apr 2020	Low Tide Time	755
S12	28 Apr 2020	Comments	Kelp; Seagrass; Algae; 6 Persons; Water turbid
S12	30 Apr 2020	Arrive Time	913
S12	30 Apr 2020	Weather	Overcast
S12	30 Apr 2020	Wind Speed (kts)	3.6
S12	30 Apr 2020	Wind Dir	W
S12	30 Apr 2020	Animal Life	2 Dogs
S12	30 Apr 2020	Floatables	Foam; Film
S12	30 Apr 2020	Water Color	Red
S12	30 Apr 2020	Current Direction	N
S12	30 Apr 2020	Water Temp (C)	21.3
S12	30 Apr 2020	Wave Height Low (ft)	3
S12	30 Apr 2020	High Tide (ft)	4.3
S12	30 Apr 2020	High Tide Time	215
S12	30 Apr 2020	Low Tide (ft)	0.1
S12	30 Apr 2020	Low Tide Time	1028
S12	30 Apr 2020	Comments	Resample; Kelp; Seagrass; Algae; 1 Jogger; 5 Persons; 1 Fisherman; Water turbid

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 Apr 2020	229	406	153	17	49	58	987
02 Apr 2020	229	406	153	17	49	58	987
03 Apr 2020	229	406	153	17	49	58	987
04 Apr 2020	87*	1288*	422*	29*	108*	124*	2896*
05 Apr 2020	87*	1288*	422*	29*	108*	124*	2896*
06 Apr 2020	87*	1288*	422*	29*	108*	124*	2896*
07 Apr 2020	87*	1288*	422*	29*	108*	124*	2896*
08 Apr 2020	110*	1774*	396*	70*	407*	189*	6706*
09 Apr 2020	110*	1774*	396*	70*	407*	189*	6706*
10 Apr 2020	296*	1584*	448*	113*	1019*	161*	3982*
11 Apr 2020	296*	1584*	448*	113*	1019*	161*	3982*
12 Apr 2020	296*	1584*	448*	113*	1019*	161*	3982*
13 Apr 2020	296*	1584*	448*	113*	1019*	161*	3982*
14 Apr 2020	485	1086	293	86	464	74	4623
15 Apr 2020	1042*	675*	125*	76*	348*	43*	4331*
16 Apr 2020	1042*	675*	125*	76*	348*	43*	4331*
17 Apr 2020	1042*	675*	125*	76*	348*	43*	4331*
18 Apr 2020	1042*	675*	125*	76*	348*	43*	4331*
19 Apr 2020	1042*	675*	125*	76*	348*	43*	4331*
20 Apr 2020	1042*	675*	125*	76*	348*	43*	4331*
21 Apr 2020	1501	1224	121	59	281	34	5057
22 Apr 2020	1501	1224	121	59	281	34	5057
23 Apr 2020	4457*	1045*	52*	28*	132*	10*	5256*
24 Apr 2020	4457*	1045*	52*	28*	132*	10*	5256*
25 Apr 2020	4457*	1045*	52*	28*	132*	10*	5256*
26 Apr 2020	4457*	1045*	52*	28*	132*	10*	5256*
27 Apr 2020	4457*	1045*	52*	28*	132*	10*	5256*
28 Apr 2020	4286	799	76	83	231	15	4389
29 Apr 2020	4286	799	76	83	231	15	4389
30 Apr 2020	4286	799	76	83	231	15	4389

* 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 Apr 2020	62	102	56	11	20	22	283
02 Apr 2020	62	102	56	11	20	22	283
03 Apr 2020	62	102	56	11	20	22	283
04 Apr 2020	21*	272*	129*	17*	35*	39*	859*
05 Apr 2020	21*	272*	129*	17*	35*	39*	859*
06 Apr 2020	21*	272*	129*	17*	35*	39*	859*
07 Apr 2020	21*	272*	129*	17*	35*	39*	859*
08 Apr 2020	23*	392*	149*	36*	90*	68*	1583*
09 Apr 2020	23*	392*	149*	36*	90*	68*	1583*
10 Apr 2020	59*	353*	150*	42*	292*	49*	1014*
11 Apr 2020	59*	353*	150*	42*	292*	49*	1014*
12 Apr 2020	59*	353*	150*	42*	292*	49*	1014*
13 Apr 2020	59*	353*	150*	42*	292*	49*	1014*
14 Apr 2020	103	220	79	29	151	28	1018
15 Apr 2020	244*	106*	31*	27*	134*	18*	789*
16 Apr 2020	244*	106*	31*	27*	134*	18*	789*
17 Apr 2020	244*	106*	31*	27*	134*	18*	789*
18 Apr 2020	244*	106*	31*	27*	134*	18*	789*
19 Apr 2020	244*	106*	31*	27*	134*	18*	789*
20 Apr 2020	244*	106*	31*	27*	134*	18*	789*
21 Apr 2020	319	201	22	19	107	14	1065
22 Apr 2020	319	201	22	19	107	14	1065
23 Apr 2020	803*	182*	10*	8*	55*	5*	1390*
24 Apr 2020	803*	182*	10*	8*	55*	5*	1390*
25 Apr 2020	803*	182*	10*	8*	55*	5*	1390*
26 Apr 2020	803*	182*	10*	8*	55*	5*	1390*
27 Apr 2020	803*	182*	10*	8*	55*	5*	1390*
28 Apr 2020	868	148	15	26	87	5	1159
29 Apr 2020	868	148	15	26	87	5	1159
30 Apr 2020	868	148	15	26	87	5	1159

* 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 Apr 2020	38	29	16	4	7	12	89
02 Apr 2020	38	29	16	4	7	12	89
03 Apr 2020	38	29	16	4	7	12	89
04 Apr 2020	21*	56*	26*	4*	10*	18*	229*
05 Apr 2020	21*	56*	26*	4*	10*	18*	229*
06 Apr 2020	21*	56*	26*	4*	10*	18*	229*
07 Apr 2020	21*	56*	26*	4*	10*	18*	229*
08 Apr 2020	26*	52*	23*	5*	16*	14*	311*
09 Apr 2020	26*	52*	23*	5*	16*	14*	311*
10 Apr 2020	68*	72*	38*	12*	68*	20*	341*
11 Apr 2020	68*	72*	38*	12*	68*	20*	341*
12 Apr 2020	68*	72*	38*	12*	68*	20*	341*
13 Apr 2020	68*	72*	38*	12*	68*	20*	341*
14 Apr 2020	89	82	31	13	49	12	450
15 Apr 2020	180*	57*	19*	17*	56*	12*	524*
16 Apr 2020	180*	57*	19*	17*	56*	12*	524*
17 Apr 2020	180*	57*	19*	17*	56*	12*	524*
18 Apr 2020	180*	57*	19*	17*	56*	12*	524*
19 Apr 2020	180*	57*	19*	17*	56*	12*	524*
20 Apr 2020	180*	57*	19*	17*	56*	12*	524*
21 Apr 2020	176	84	22	17	65	10	493
22 Apr 2020	176	84	22	17	65	10	493
23 Apr 2020	327*	109*	21*	18*	65*	6*	606*
24 Apr 2020	327*	109*	21*	18*	65*	6*	606*
25 Apr 2020	327*	109*	21*	18*	65*	6*	606*
26 Apr 2020	327*	109*	21*	18*	65*	6*	606*
27 Apr 2020	327*	109*	21*	18*	65*	6*	606*
28 Apr 2020	435	105	27	46	90	8	553
29 Apr 2020	435	105	27	46	90	8	553
30 Apr 2020	435	105	27	46	90	8	553

* 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
01 Apr 2020	IC	IC	IC	IC	IC	IC	E
10 Apr 2020	IC	IC	IC	IC	E	IC	IC
14 Apr 2020	IC	IC	IC	IC	IC	IC	E
21 Apr 2020	E	E	IC	IC	IC	IC	E
28 Apr 2020	IC	IC	IC	E	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.5

Summary of compliance at the SBOO kelp stations with the Ocean Plan's Single Sample Maximum standard for fecal coliform bacteria, which states that fecal coliform density shall not exceed 400 CFU/100 mL.

Date	I19	I24	I25	I26	I32	I39	I40
01 Apr 2020	E	IC	IC	IC	IC	IC	E
10 Apr 2020	E	IC	IC	IC	E	IC	IC
14 Apr 2020	E	IC	IC	IC	IC	IC	E
21 Apr 2020	E	E	IC	IC	IC	IC	E
28 Apr 2020	E	IC	IC	E	E	IC	E

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
01 Apr 2020	E	IC	IC	IC	IC	IC	E
10 Apr 2020	E	E	E	E	E	IC	E
14 Apr 2020	E	E	IC	IC	IC	IC	E
21 Apr 2020	E	E	IC	IC	E	IC	E
28 Apr 2020	E	E	IC	E	E	IC	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
01 Apr 2020	E	IC	IC	IC	IC	IC	E
10 Apr 2020	E	E	IC	IC	E	IC	E
14 Apr 2020	E	IC	IC	IC	IC	IC	E
21 Apr 2020	E	E	IC	IC	IC	IC	E
28 Apr 2020	E	IC	IC	E	E	IC	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
119	01 Apr 2020	1003	2	4200	980	240e	0.23	13.4	62.61	8.3	33.55	8.0
119	01 Apr 2020	1003	6	3000e	340e	110	0.11	12.1	68.36	6.1	33.73	7.8
119	01 Apr 2020	1003	11	1800e	120e	320e	0.07	11.7	30.39	4.8	33.69	7.7
119	10 Apr 2020	1053	2	5800	800e	600e	0.14	15.9	53.83	8.1	33.19	8.1
119	10 Apr 2020	1053	6	4600	600e	1200	0.13	15.9	49.09	8.1	33.22	8.1
119	10 Apr 2020	1053	11	7200	1400e	1800e	0.19	15.9	39.74	8.1	33.25	8.1
119	14 Apr 2020	1002	2	1200	720	220e	0.60	15.9	60.86	7.6	33.16	8.0
119	14 Apr 2020	1002	6	5800	1400e	240e	0.24	15.7	51.87	7.2	33.39	8.0
119	14 Apr 2020	1002	11	3400e	840	340e	0.25	14.7	28.35	6.1	33.55	7.9
119	21 Apr 2020	1157	2	11000	1800e	40e	0.16	13.6	28.92	8.9	33.43	7.9
119	21 Apr 2020	1157	6	6800	840	160e	0.12	11.9	37.84	4.3	33.76	7.6
119	21 Apr 2020	1157	11	1600e	180e	280e	0.11	11.8	13.25	3.9	33.74	7.6
119	28 Apr 2020	1055	2	5400	2000e	3000e	0.37	19.4	1.78	9.6	33.57	8.4
119	28 Apr 2020	1055	6	4400	1400e	800	0.32	19.0	20.82	9.4	33.58	8.4
119	28 Apr 2020	1055	11	1200e	160e	280e	0.13	15.9	41.13	8.0	33.71	8.2
124	01 Apr 2020	1023	2	2e	<2	<2	1.00	14.1	69.69	8.6	33.57	8.0
124	01 Apr 2020	1023	6	600e	100e	30e	0.17	13.7	68.00	8.0	33.61	8.0
124	01 Apr 2020	1023	11	400	48	8e	0.12	12.4	80.21	5.7	33.65	7.8
124	10 Apr 2020	1115	2	1400e	200e	320e	0.14	15.8	74.43	8.5	33.30	8.1
124	10 Apr 2020	1115	6	1000e	300e	160e	0.30	15.9	74.15	8.5	33.32	8.1
124	10 Apr 2020	1115	11	980	280e	120e	0.29	15.9	55.94	8.6	33.37	8.2
124	14 Apr 2020	1024	2	100e	10e	12e	0.10	16.2	57.11	9.6	33.11	8.2
124	14 Apr 2020	1024	6	220e	<20	78	0.09	15.5	76.71	8.3	33.43	8.1
124	14 Apr 2020	1024	11	400	68	320e	0.17	15.5	70.58	8.2	33.43	8.1
124	21 Apr 2020	1222	2	> 16000	3800e	320e	0.24	14.5	24.79	12.3	33.55	8.3
124	21 Apr 2020	1222	6	> 16000	3800e	560	0.24	13.9	52.19	8.1	33.54	8.0
124	21 Apr 2020	1222	11	7600	200e	300e	0.03	12.0	11.16	4.0	33.72	7.6
124	28 Apr 2020	1119	2	<20	12e	<20	0.60	19.3	63.00	12.6	33.59	8.6
124	28 Apr 2020	1119	6	400e	60	160e	0.15	15.5	78.39	8.9	33.75	8.2
124	28 Apr 2020	1119	11	400	120	90	0.30	15.1	65.55	8.3	33.66	8.1
125	01 Apr 2020	1031	2	<2	<2	<2	1.00	14.2	71.17	8.7	33.56	8.0
125	01 Apr 2020	1031	6	<2	<2	<2	1.00	13.9	71.40	8.2	33.59	8.0
125	01 Apr 2020	1031	9	2e	<2	<2	1.00	13.2	80.25	7.1	33.60	7.8
125	10 Apr 2020	1126	2	820	140e	100e	0.17	15.8	62.88	8.6	33.34	8.2
125	10 Apr 2020	1126	6	620	140e	180e	0.23	15.8	69.44	8.6	33.34	8.2
125	10 Apr 2020	1126	9	500	180e	200e	0.36	15.8	66.23	8.5	33.35	8.2

Station	Date	Time	Depth	Total	Fecal	Enteroc	F:T	Temp	XMS	DO	Sal	pH
I25	14 Apr 2020	1034	2	20e	8e	4e	0.40	16.3	66.22	10.2	33.19	8.2
I25	14 Apr 2020	1034	6	40e	4e	20e	0.10	15.5	80.53	8.5	33.45	8.1
I25	14 Apr 2020	1034	9	100e	6e	20e	0.06	15.5	80.90	8.4	33.45	8.1
I25	21 Apr 2020	1233	2	80e	<2	<20	0.02	14.9	40.22	12.7	33.62	8.3
I25	21 Apr 2020	1233	6	120e	6e	52	0.05	14.1	70.65	9.8	33.61	8.2
I25	21 Apr 2020	1233	9	120e	10e	60e	0.08	12.1	46.89	5.5	33.85	7.8
I25	28 Apr 2020	1130	2	40e	2e	10e	0.05	19.0	61.10	12.6	33.62	8.6
I25	28 Apr 2020	1130	6	420	84	90	0.20	16.3	73.54	8.8	33.67	8.2
I25	28 Apr 2020	1130	9	600	140e	100e	0.23	15.4	65.48	8.1	33.67	8.1
I26	01 Apr 2020	1043	2	2e	<2	<2	1.00	14.2	68.48	8.7	33.57	8.0
I26	01 Apr 2020	1043	6	<2	<2	<2	1.00	13.5	74.92	7.7	33.67	7.9
I26	01 Apr 2020	1043	9	<2	<2	<2	1.00	12.1	83.47	5.9	33.66	7.8
I26	10 Apr 2020	1135	2	440	60e	120e	0.14	15.9	57.32	8.7	33.31	8.2
I26	10 Apr 2020	1135	6	480	100e	240e	0.21	15.9	57.56	8.7	33.31	8.2
I26	10 Apr 2020	1135	9	500	40e	120e	0.08	15.9	54.82	8.6	33.31	8.2
I26	14 Apr 2020	1052	2	<20	<2	8e	0.10	16.2	59.24	10.4	33.28	8.2
I26	14 Apr 2020	1052	6	40e	14e	42	0.35	15.0	81.60	7.8	33.49	8.0
I26	14 Apr 2020	1052	9	30e	6e	8e	0.20	14.6	81.49	7.3	33.53	8.0
I26	21 Apr 2020	1244	2	4e	<2	<2	0.50	14.8	37.77	11.7	33.68	8.3
I26	21 Apr 2020	1244	6	<20	<2	4e	0.10	13.9	79.08	9.2	33.63	8.1
I26	21 Apr 2020	1244	9	40e	8e	48	0.20	11.8	62.06	4.8	33.77	7.7
I26	28 Apr 2020	1140	2	> 16000	8400	5000	0.52	19.3	28.34	12.6	33.53	8.6
I26	28 Apr 2020	1140	6	<200	58	68	0.29	18.4	78.59	11.4	33.62	8.5
I26	28 Apr 2020	1140	9	2800e	460	240e	0.16	16.0	40.45	7.8	33.71	8.2
I32	01 Apr 2020	1054	2	<2	<2	<2	1.00	14.1	61.41	8.8	33.57	8.0
I32	01 Apr 2020	1054	6	<2	<2	<2	1.00	13.6	58.65	7.8	33.60	7.9
I32	01 Apr 2020	1054	9	<20	<2	2e	0.10	12.9	64.69	7.2	33.66	7.9
I32	10 Apr 2020	1147	2	> 16000	> 12000	11000	0.75	15.8	16.18	8.3	32.49	8.2
I32	10 Apr 2020	1147	6	> 16000	6400	2000e	0.40	15.9	48.93	8.6	33.25	8.2
I32	10 Apr 2020	1147	9	> 16000	12000	3200e	0.75	15.8	53.40	8.4	33.28	8.2
I32	14 Apr 2020	1101	2	20e	6e	4e	0.30	16.2	58.38	9.9	33.23	8.2
I32	14 Apr 2020	1101	6	<20	6e	<2	0.30	15.8	82.78	8.8	33.38	8.1
I32	14 Apr 2020	1101	9	20e	<20	34e	1.00	15.6	65.14	7.7	33.42	8.0
I32	21 Apr 2020	1258	2	<20	<2	14e	0.10	15.2	41.13	13.6	33.65	8.4
I32	21 Apr 2020	1258	6	200e	76	240e	0.38	13.1	35.98	7.9	33.78	7.9
I32	21 Apr 2020	1258	9	140e	50	120e	0.36	12.0	37.06	4.5	33.74	7.7
I32	28 Apr 2020	1157	2	4400	600e	200e	0.14	20.8	0.61	12.3	33.48	8.7
I32	28 Apr 2020	1157	6	1200e	800e	480	0.67	18.2	16.72	9.8	33.60	8.4
I32	28 Apr 2020	1157	9	800e	240e	320e	0.30	17.3	54.38	8.9	33.61	8.3
I39	01 Apr 2020	945	2	<2	2e	<2	1.00	13.9	81.17	8.0	33.56	8.0
I39	01 Apr 2020	945	12	<2	<2	<2	1.00	11.9	88.73	5.5	33.70	7.8

Station	Date	Time	Depth	Total	Fecal	Enteroc	F:T	Temp	XMS	DO	Sal	pH
I39	01 Apr 2020	945	18	2e	<2	<2	1.00	11.3	90.22	4.8	33.73	7.7
I39	10 Apr 2020	1029	2	140e	14e	44	0.10	15.9	74.58	8.9	33.40	8.2
I39	10 Apr 2020	1029	12	80e	20e	62	0.25	15.9	74.73	9.0	33.41	8.2
I39	10 Apr 2020	1029	18	80e	22e	46	0.28	15.9	78.74	9.0	33.42	8.2
I39	14 Apr 2020	944	2	2e	<2	<2	1.00	16.4	83.79	10.0	33.06	8.3
I39	14 Apr 2020	944	12	<2	<2	<2	1.00	14.3	87.10	7.6	33.53	8.0
I39	14 Apr 2020	944	18	6e	4e	<2	0.67	12.7	88.73	5.8	33.71	7.8
I39	21 Apr 2020	1133	2	<2	<2	<2	1.00	14.1	67.77	9.7	33.61	8.2
I39	21 Apr 2020	1133	12	20e	10e	10e	0.50	11.8	82.84	4.9	33.75	7.8
I39	21 Apr 2020	1133	18	16e	2e	4e	0.12	11.5	80.56	4.3	33.75	7.7
I39	28 Apr 2020	1031	2	<2	<2	<2	1.00	19.1	85.55	12.6	33.51	8.5
I39	28 Apr 2020	1031	12	<200	16e	32e	0.08	12.9	67.43	6.2	33.75	7.8
I39	28 Apr 2020	1031	18	60e	10e	64	0.17	12.1	61.45	4.3	33.74	7.6
I40	01 Apr 2020	1014	2	14000	5800	600	0.41	13.6	73.07	7.6	33.48	7.9
I40	01 Apr 2020	1014	6	> 16000	5000	1000	0.31	12.6	73.52	6.3	33.67	7.8
I40	01 Apr 2020	1014	9	4800	700	110	0.15	11.9	76.24	5.3	33.68	7.7
I40	10 Apr 2020	1106	2	1000	140e	320e	0.14	15.9	57.02	8.5	33.25	8.2
I40	10 Apr 2020	1106	6	1100	320e	400	0.29	15.9	55.54	8.4	33.25	8.2
I40	10 Apr 2020	1106	9	400e	340e	620	0.85	15.9	51.06	8.4	33.27	8.2
I40	14 Apr 2020	1012	2	6800	1000	1100	0.15	15.9	5.85	7.4	33.16	8.0
I40	14 Apr 2020	1012	6	11000	1100	1800e	0.10	15.7	17.25	6.9	33.41	8.0
I40	14 Apr 2020	1012	9	7400	1000	1200e	0.14	14.8	6.22	5.9	33.53	7.9
I40	21 Apr 2020	1211	2	> 16000	7600	520	0.47	14.4	25.68	10.2	33.22	8.1
I40	21 Apr 2020	1211	6	6800	1800e	280e	0.26	12.5	41.66	5.4	33.74	7.8
I40	21 Apr 2020	1211	9	5400	1200e	360e	0.22	11.8	36.67	4.2	33.74	7.6
I40	28 Apr 2020	1109	2	1000e	600e	600e	0.60	20.4	4.63	12.3	33.50	8.7
I40	28 Apr 2020	1109	6	<200	160e	110	0.80	18.3	53.24	9.3	33.64	8.4
I40	28 Apr 2020	1109	9	5200	920	440	0.18	16.7	49.52	8.1	33.75	8.3

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	01 Apr 2020	Depth (m)	9
I19	01 Apr 2020	Arrive Time	1003
I19	01 Apr 2020	Depart Time	1008
I19	01 Apr 2020	Air Temp (C)	14
I19	01 Apr 2020	Weather	Partly Cloudy
I19	01 Apr 2020	Visibility (mi)	8
I19	01 Apr 2020	Wind Speed (kts)	9
I19	01 Apr 2020	Wind Dir	SW
I19	01 Apr 2020	Water Color	Green
I19	01 Apr 2020	Wave Ht Low (ft)	3
I19	01 Apr 2020	Wave Period (sec)	11
I19	01 Apr 2020	Sea State	Calm
I19	01 Apr 2020	High Tide (ft)	4.16
I19	01 Apr 2020	High Tide Time	248
I19	01 Apr 2020	Low Tide (ft)	0.39
I19	01 Apr 2020	Low Tide Time	1119
I19	01 Apr 2020	Comments	none
I19	14 Apr 2020	Depth (m)	9
I19	14 Apr 2020	Arrive Time	1002
I19	14 Apr 2020	Depart Time	1006
I19	14 Apr 2020	Air Temp (C)	16
I19	14 Apr 2020	Weather	Clear
I19	14 Apr 2020	Visibility (mi)	8
I19	14 Apr 2020	Wind Speed (kts)	7
I19	14 Apr 2020	Wind Dir	W
I19	14 Apr 2020	Water Color	Greenish-Brown
I19	14 Apr 2020	Wave Ht Low (ft)	3
I19	14 Apr 2020	Wave Period (sec)	4
I19	14 Apr 2020	Sea State	Light chop
I19	14 Apr 2020	High Tide (ft)	4.39
I19	14 Apr 2020	High Tide Time	224
I19	14 Apr 2020	Low Tide (ft)	0.12
I19	14 Apr 2020	Low Tide Time	1031
I19	14 Apr 2020	Comments	TJ river plume
I19	21 Apr 2020	Depth (m)	11
I19	21 Apr 2020	Arrive Time	1157
I19	21 Apr 2020	Depart Time	1205
I19	21 Apr 2020	Air Temp (C)	15
I19	21 Apr 2020	Weather	Clear
I19	21 Apr 2020	Visibility (mi)	12
I19	21 Apr 2020	Wind Speed (kts)	5
I19	21 Apr 2020	Wind Dir	S
I19	21 Apr 2020	Water Color	Brown
I19	21 Apr 2020	Wave Ht Low (ft)	5
I19	21 Apr 2020	Wave Period (sec)	13
I19	21 Apr 2020	Sea State	Light chop
I19	21 Apr 2020	High Tide (ft)	4.39
I19	21 Apr 2020	High Tide Time	904
I19	21 Apr 2020	Low Tide (ft)	0.49

Station	Date	Parameter	Value
I19	21 Apr 2020	Low Tide Time	1506
I19	21 Apr 2020	Comments	Possible red tide
I19	28 Apr 2020	Depth (m)	10
I19	28 Apr 2020	Arrive Time	1055
I19	28 Apr 2020	Depart Time	1100
I19	28 Apr 2020	Air Temp (C)	18
I19	28 Apr 2020	Weather	Haze
I19	28 Apr 2020	Visibility (mi)	8
I19	28 Apr 2020	Wind Speed (kts)	5
I19	28 Apr 2020	Wind Dir	SW
I19	28 Apr 2020	Water Color	Reddish-Brown
I19	28 Apr 2020	Wave Ht Low (ft)	3
I19	28 Apr 2020	Wave Period (sec)	9
I19	28 Apr 2020	Sea State	Calm
I19	28 Apr 2020	High Tide (ft)	2.78
I19	28 Apr 2020	High Tide Time	1511
I19	28 Apr 2020	Low Tide (ft)	0.2
I19	28 Apr 2020	Low Tide Time	755
I19	28 Apr 2020	Comments	Red tide
I24	01 Apr 2020	Depth (m)	9
I24	01 Apr 2020	Arrive Time	1023
I24	01 Apr 2020	Depart Time	1028
I24	01 Apr 2020	Air Temp (C)	15
I24	01 Apr 2020	Weather	Partly Cloudy
I24	01 Apr 2020	Visibility (mi)	8
I24	01 Apr 2020	Wind Speed (kts)	10
I24	01 Apr 2020	Wind Dir	SE
I24	01 Apr 2020	Water Color	Brown
I24	01 Apr 2020	Wave Ht Low (ft)	3
I24	01 Apr 2020	Wave Period (sec)	11
I24	01 Apr 2020	Sea State	Calm
I24	01 Apr 2020	High Tide (ft)	4.16
I24	01 Apr 2020	High Tide Time	248
I24	01 Apr 2020	Low Tide (ft)	0.39
I24	01 Apr 2020	Low Tide Time	1119
I24	01 Apr 2020	Comments	none
I24	14 Apr 2020	Depth (m)	9
I24	14 Apr 2020	Arrive Time	1024
I24	14 Apr 2020	Depart Time	1032
I24	14 Apr 2020	Air Temp (C)	16
I24	14 Apr 2020	Weather	Clear
I24	14 Apr 2020	Visibility (mi)	8
I24	14 Apr 2020	Wind Speed (kts)	10
I24	14 Apr 2020	Wind Dir	W
I24	14 Apr 2020	Water Color	Brown
I24	14 Apr 2020	Wave Ht Low (ft)	3
I24	14 Apr 2020	Wave Period (sec)	4
I24	14 Apr 2020	Sea State	Light chop
I24	14 Apr 2020	High Tide (ft)	4.39
I24	14 Apr 2020	High Tide Time	224
I24	14 Apr 2020	Low Tide (ft)	0.12
I24	14 Apr 2020	Low Tide Time	1031

Station	Date	Parameter	Value
I24	14 Apr 2020	Comments	none
I24	21 Apr 2020	Depth (m)	12
I24	21 Apr 2020	Arrive Time	1222
I24	21 Apr 2020	Depart Time	1228
I24	21 Apr 2020	Air Temp (C)	16
I24	21 Apr 2020	Weather	Clear
I24	21 Apr 2020	Visibility (mi)	12
I24	21 Apr 2020	Wind Speed (kts)	6
I24	21 Apr 2020	Wind Dir	S
I24	21 Apr 2020	Water Color	Reddish-Brown
I24	21 Apr 2020	Wave Ht Low (ft)	4
I24	21 Apr 2020	Wave Period (sec)	13
I24	21 Apr 2020	Sea State	Light chop
I24	21 Apr 2020	High Tide (ft)	4.39
I24	21 Apr 2020	High Tide Time	904
I24	21 Apr 2020	Low Tide (ft)	0.49
I24	21 Apr 2020	Low Tide Time	1506
I24	21 Apr 2020	Comments	Possible red tide
I24	28 Apr 2020	Depth (m)	9
I24	28 Apr 2020	Arrive Time	1119
I24	28 Apr 2020	Depart Time	1126
I24	28 Apr 2020	Air Temp (C)	18
I24	28 Apr 2020	Weather	Haze
I24	28 Apr 2020	Visibility (mi)	8
I24	28 Apr 2020	Wind Speed (kts)	8
I24	28 Apr 2020	Wind Dir	SW
I24	28 Apr 2020	Water Color	Reddish-Brown
I24	28 Apr 2020	Wave Ht Low (ft)	3
I24	28 Apr 2020	Wave Period (sec)	9
I24	28 Apr 2020	Sea State	Calm
I24	28 Apr 2020	High Tide (ft)	2.78
I24	28 Apr 2020	High Tide Time	1511
I24	28 Apr 2020	Low Tide (ft)	0.2
I24	28 Apr 2020	Low Tide Time	755
I24	28 Apr 2020	Comments	Red tide
I25	01 Apr 2020	Depth (m)	9
I25	01 Apr 2020	Arrive Time	1031
I25	01 Apr 2020	Depart Time	1035
I25	01 Apr 2020	Air Temp (C)	15
I25	01 Apr 2020	Weather	Partly Cloudy
I25	01 Apr 2020	Visibility (mi)	8
I25	01 Apr 2020	Wind Speed (kts)	8
I25	01 Apr 2020	Wind Dir	E
I25	01 Apr 2020	Water Color	Greenish-Brown
I25	01 Apr 2020	Wave Ht Low (ft)	3
I25	01 Apr 2020	Wave Period (sec)	11
I25	01 Apr 2020	Sea State	Calm
I25	01 Apr 2020	High Tide (ft)	4.16
I25	01 Apr 2020	High Tide Time	248
I25	01 Apr 2020	Low Tide (ft)	0.39
I25	01 Apr 2020	Low Tide Time	1119
I25	01 Apr 2020	Comments	9m depth not reached due to low tide

Station	Date	Parameter	Value
I25	14 Apr 2020	Depth (m)	9
I25	14 Apr 2020	Arrive Time	1034
I25	14 Apr 2020	Depart Time	1043
I25	14 Apr 2020	Air Temp (C)	16
I25	14 Apr 2020	Weather	Clear
I25	14 Apr 2020	Visibility (mi)	8
I25	14 Apr 2020	Wind Speed (kts)	11
I25	14 Apr 2020	Wind Dir	SW
I25	14 Apr 2020	Water Color	Brown
I25	14 Apr 2020	Wave Ht Low (ft)	3
I25	14 Apr 2020	Wave Period (sec)	4
I25	14 Apr 2020	Sea State	Light chop
I25	14 Apr 2020	High Tide (ft)	4.39
I25	14 Apr 2020	High Tide Time	224
I25	14 Apr 2020	Low Tide (ft)	0.12
I25	14 Apr 2020	Low Tide Time	1031
I25	14 Apr 2020	Comments	Could not get 9m depth due to low tide and possible shifting sand bars
I25	21 Apr 2020	Depth (m)	10
I25	21 Apr 2020	Arrive Time	1233
I25	21 Apr 2020	Depart Time	1239
I25	21 Apr 2020	Air Temp (C)	16
I25	21 Apr 2020	Weather	Clear
I25	21 Apr 2020	Visibility (mi)	12
I25	21 Apr 2020	Wind Speed (kts)	4
I25	21 Apr 2020	Wind Dir	S
I25	21 Apr 2020	Water Color	Reddish-Brown
I25	21 Apr 2020	Wave Ht Low (ft)	4
I25	21 Apr 2020	Wave Period (sec)	13
I25	21 Apr 2020	Sea State	Light chop
I25	21 Apr 2020	High Tide (ft)	4.39
I25	21 Apr 2020	High Tide Time	904
I25	21 Apr 2020	Low Tide (ft)	0.49
I25	21 Apr 2020	Low Tide Time	1506
I25	21 Apr 2020	Comments	Possible red tide
I25	28 Apr 2020	Depth (m)	9
I25	28 Apr 2020	Arrive Time	1130
I25	28 Apr 2020	Depart Time	1135
I25	28 Apr 2020	Air Temp (C)	18
I25	28 Apr 2020	Weather	Haze
I25	28 Apr 2020	Visibility (mi)	8
I25	28 Apr 2020	Wind Speed (kts)	5
I25	28 Apr 2020	Wind Dir	SW
I25	28 Apr 2020	Water Color	Reddish-Brown
I25	28 Apr 2020	Wave Ht Low (ft)	3
I25	28 Apr 2020	Wave Period (sec)	9
I25	28 Apr 2020	Sea State	Calm
I25	28 Apr 2020	High Tide (ft)	2.78
I25	28 Apr 2020	High Tide Time	1511
I25	28 Apr 2020	Low Tide (ft)	0.2
I25	28 Apr 2020	Low Tide Time	755
I25	28 Apr 2020	Comments	Red tide

Station	Date	Parameter	Value
I26	01 Apr 2020	Depth (m)	9
I26	01 Apr 2020	Arrive Time	1043
I26	01 Apr 2020	Depart Time	1047
I26	01 Apr 2020	Air Temp (C)	15
I26	01 Apr 2020	Weather	Partly Cloudy
I26	01 Apr 2020	Visibility (mi)	8
I26	01 Apr 2020	Wind Speed (kts)	3
I26	01 Apr 2020	Wind Dir	SE
I26	01 Apr 2020	Water Color	Greenish-Brown
I26	01 Apr 2020	Wave Ht Low (ft)	3
I26	01 Apr 2020	Wave Period (sec)	11
I26	01 Apr 2020	Sea State	Calm
I26	01 Apr 2020	High Tide (ft)	4.16
I26	01 Apr 2020	High Tide Time	248
I26	01 Apr 2020	Low Tide (ft)	0.39
I26	01 Apr 2020	Low Tide Time	1119
I26	01 Apr 2020	Comments	none
I26	14 Apr 2020	Depth (m)	9
I26	14 Apr 2020	Arrive Time	1052
I26	14 Apr 2020	Depart Time	1054
I26	14 Apr 2020	Air Temp (C)	15
I26	14 Apr 2020	Weather	Clear
I26	14 Apr 2020	Visibility (mi)	8
I26	14 Apr 2020	Wind Speed (kts)	12
I26	14 Apr 2020	Wind Dir	W
I26	14 Apr 2020	Water Color	Brown
I26	14 Apr 2020	Wave Ht Low (ft)	3
I26	14 Apr 2020	Wave Period (sec)	4
I26	14 Apr 2020	Sea State	Light chop
I26	14 Apr 2020	High Tide (ft)	4.39
I26	14 Apr 2020	High Tide Time	224
I26	14 Apr 2020	Low Tide (ft)	0.12
I26	14 Apr 2020	Low Tide Time	1031
I26	14 Apr 2020	Comments	none
I26	21 Apr 2020	Depth (m)	10
I26	21 Apr 2020	Arrive Time	1244
I26	21 Apr 2020	Depart Time	1250
I26	21 Apr 2020	Air Temp (C)	16
I26	21 Apr 2020	Weather	Clear
I26	21 Apr 2020	Visibility (mi)	12
I26	21 Apr 2020	Wind Speed (kts)	5
I26	21 Apr 2020	Wind Dir	S
I26	21 Apr 2020	Water Color	Reddish-Brown
I26	21 Apr 2020	Wave Ht Low (ft)	4
I26	21 Apr 2020	Wave Period (sec)	13
I26	21 Apr 2020	Sea State	Light chop
I26	21 Apr 2020	High Tide (ft)	4.39
I26	21 Apr 2020	High Tide Time	904
I26	21 Apr 2020	Low Tide (ft)	0.49
I26	21 Apr 2020	Low Tide Time	1506
I26	21 Apr 2020	Comments	Possible red tide

Station	Date	Parameter	Value
I26	28 Apr 2020	Depth (m)	9
I26	28 Apr 2020	Arrive Time	1140
I26	28 Apr 2020	Depart Time	1144
I26	28 Apr 2020	Air Temp (C)	18
I26	28 Apr 2020	Weather	Haze
I26	28 Apr 2020	Visibility (mi)	8
I26	28 Apr 2020	Wind Speed (kts)	7
I26	28 Apr 2020	Wind Dir	SW
I26	28 Apr 2020	Water Color	Reddish-Brown
I26	28 Apr 2020	Wave Ht Low (ft)	3
I26	28 Apr 2020	Wave Period (sec)	9
I26	28 Apr 2020	Sea State	Calm
I26	28 Apr 2020	High Tide (ft)	2.78
I26	28 Apr 2020	High Tide Time	1511
I26	28 Apr 2020	Low Tide (ft)	0.2
I26	28 Apr 2020	Low Tide Time	755
I26	28 Apr 2020	Comments	Red tide
I32	01 Apr 2020	Depth (m)	9
I32	01 Apr 2020	Arrive Time	1054
I32	01 Apr 2020	Depart Time	1058
I32	01 Apr 2020	Air Temp (C)	15
I32	01 Apr 2020	Weather	Partly Cloudy
I32	01 Apr 2020	Visibility (mi)	8
I32	01 Apr 2020	Wind Speed (kts)	10
I32	01 Apr 2020	Wind Dir	SE
I32	01 Apr 2020	Water Color	Greenish-Brown
I32	01 Apr 2020	Wave Ht Low (ft)	3
I32	01 Apr 2020	Wave Period (sec)	11
I32	01 Apr 2020	Sea State	Calm
I32	01 Apr 2020	High Tide (ft)	4.16
I32	01 Apr 2020	High Tide Time	248
I32	01 Apr 2020	Low Tide (ft)	0.39
I32	01 Apr 2020	Low Tide Time	1119
I32	01 Apr 2020	Comments	none
I32	14 Apr 2020	Depth (m)	9
I32	14 Apr 2020	Arrive Time	1101
I32	14 Apr 2020	Depart Time	1108
I32	14 Apr 2020	Air Temp (C)	16
I32	14 Apr 2020	Weather	Clear
I32	14 Apr 2020	Visibility (mi)	8
I32	14 Apr 2020	Wind Speed (kts)	8
I32	14 Apr 2020	Wind Dir	E
I32	14 Apr 2020	Water Color	Brown
I32	14 Apr 2020	Wave Ht Low (ft)	3
I32	14 Apr 2020	Wave Period (sec)	4
I32	14 Apr 2020	Sea State	Light chop
I32	14 Apr 2020	High Tide (ft)	4.39
I32	14 Apr 2020	High Tide Time	224
I32	14 Apr 2020	Low Tide (ft)	0.12
I32	14 Apr 2020	Low Tide Time	1031
I32	14 Apr 2020	Comments	none
I32	21 Apr 2020	Depth (m)	10

Station	Date	Parameter	Value
I32	21 Apr 2020	Arrive Time	1258
I32	21 Apr 2020	Depart Time	1305
I32	21 Apr 2020	Air Temp (C)	16
I32	21 Apr 2020	Weather	Clear
I32	21 Apr 2020	Visibility (mi)	12
I32	21 Apr 2020	Wind Speed (kts)	3
I32	21 Apr 2020	Wind Dir	S
I32	21 Apr 2020	Water Color	Reddish-Brown
I32	21 Apr 2020	Wave Ht Low (ft)	4
I32	21 Apr 2020	Wave Period (sec)	13
I32	21 Apr 2020	Sea State	Light chop
I32	21 Apr 2020	High Tide (ft)	4.39
I32	21 Apr 2020	High Tide Time	904
I32	21 Apr 2020	Low Tide (ft)	0.49
I32	21 Apr 2020	Low Tide Time	1506
I32	21 Apr 2020	Comments	Possible red tide
I32	28 Apr 2020	Depth (m)	9
I32	28 Apr 2020	Arrive Time	1157
I32	28 Apr 2020	Depart Time	1201
I32	28 Apr 2020	Air Temp (C)	18
I32	28 Apr 2020	Weather	Haze
I32	28 Apr 2020	Visibility (mi)	8
I32	28 Apr 2020	Wind Speed (kts)	7
I32	28 Apr 2020	Wind Dir	W
I32	28 Apr 2020	Water Color	Reddish-Brown
I32	28 Apr 2020	Wave Ht Low (ft)	3
I32	28 Apr 2020	Wave Period (sec)	9
I32	28 Apr 2020	Sea State	Calm
I32	28 Apr 2020	High Tide (ft)	2.78
I32	28 Apr 2020	High Tide Time	1511
I32	28 Apr 2020	Low Tide (ft)	0.2
I32	28 Apr 2020	Low Tide Time	755
I32	28 Apr 2020	Comments	Red tide
I39	01 Apr 2020	Depth (m)	18
I39	01 Apr 2020	Arrive Time	945
I39	01 Apr 2020	Depart Time	949
I39	01 Apr 2020	Air Temp (C)	14
I39	01 Apr 2020	Weather	Partly Cloudy
I39	01 Apr 2020	Visibility (mi)	8
I39	01 Apr 2020	Wind Speed (kts)	9
I39	01 Apr 2020	Wind Dir	NE
I39	01 Apr 2020	Water Color	Green
I39	01 Apr 2020	Wave Ht Low (ft)	3
I39	01 Apr 2020	Wave Period (sec)	11
I39	01 Apr 2020	Sea State	Calm
I39	01 Apr 2020	High Tide (ft)	4.16
I39	01 Apr 2020	High Tide Time	248
I39	01 Apr 2020	Low Tide (ft)	0.39
I39	01 Apr 2020	Low Tide Time	1119
I39	01 Apr 2020	Comments	none
I39	14 Apr 2020	Depth (m)	18
I39	14 Apr 2020	Arrive Time	944

Station	Date	Parameter	Value
I39	14 Apr 2020	Depart Time	948
I39	14 Apr 2020	Air Temp (C)	16
I39	14 Apr 2020	Weather	Clear
I39	14 Apr 2020	Visibility (mi)	8
I39	14 Apr 2020	Wind Speed (kts)	10
I39	14 Apr 2020	Wind Dir	W
I39	14 Apr 2020	Water Color	Green
I39	14 Apr 2020	Wave Ht Low (ft)	3
I39	14 Apr 2020	Wave Period (sec)	4
I39	14 Apr 2020	Sea State	Light chop
I39	14 Apr 2020	High Tide (ft)	4.39
I39	14 Apr 2020	High Tide Time	224
I39	14 Apr 2020	Low Tide (ft)	0.12
I39	14 Apr 2020	Low Tide Time	1031
I39	14 Apr 2020	Comments	none
I39	21 Apr 2020	Depth (m)	20
I39	21 Apr 2020	Arrive Time	1133
I39	21 Apr 2020	Depart Time	1141
I39	21 Apr 2020	Air Temp (C)	16
I39	21 Apr 2020	Weather	Clear
I39	21 Apr 2020	Visibility (mi)	12
I39	21 Apr 2020	Wind Speed (kts)	4
I39	21 Apr 2020	Wind Dir	S
I39	21 Apr 2020	Water Color	Brown
I39	21 Apr 2020	Wave Ht Low (ft)	5
I39	21 Apr 2020	Wave Period (sec)	13
I39	21 Apr 2020	Sea State	Light chop
I39	21 Apr 2020	High Tide (ft)	4.39
I39	21 Apr 2020	High Tide Time	904
I39	21 Apr 2020	Low Tide (ft)	0.49
I39	21 Apr 2020	Low Tide Time	1506
I39	21 Apr 2020	Comments	Possible red tide
I39	28 Apr 2020	Depth (m)	18
I39	28 Apr 2020	Arrive Time	1031
I39	28 Apr 2020	Depart Time	1035
I39	28 Apr 2020	Air Temp (C)	18
I39	28 Apr 2020	Weather	Haze
I39	28 Apr 2020	Visibility (mi)	8
I39	28 Apr 2020	Wind Speed (kts)	2
I39	28 Apr 2020	Wind Dir	W
I39	28 Apr 2020	Water Color	Brownish-Green
I39	28 Apr 2020	Wave Ht Low (ft)	3
I39	28 Apr 2020	Wave Period (sec)	9
I39	28 Apr 2020	Sea State	Calm
I39	28 Apr 2020	High Tide (ft)	2.78
I39	28 Apr 2020	High Tide Time	1511
I39	28 Apr 2020	Low Tide (ft)	0.2
I39	28 Apr 2020	Low Tide Time	755
I39	28 Apr 2020	Comments	Red tide
I40	01 Apr 2020	Depth (m)	9
I40	01 Apr 2020	Arrive Time	1014
I40	01 Apr 2020	Depart Time	1019

Station	Date	Parameter	Value
I40	01 Apr 2020	Air Temp (C)	14
I40	01 Apr 2020	Weather	Partly Cloudy
I40	01 Apr 2020	Visibility (mi)	8
I40	01 Apr 2020	Wind Speed (kts)	6
I40	01 Apr 2020	Wind Dir	E
I40	01 Apr 2020	Water Color	Green
I40	01 Apr 2020	Wave Ht Low (ft)	3
I40	01 Apr 2020	Wave Period (sec)	11
I40	01 Apr 2020	Sea State	Calm
I40	01 Apr 2020	High Tide (ft)	4.16
I40	01 Apr 2020	High Tide Time	248
I40	01 Apr 2020	Low Tide (ft)	0.39
I40	01 Apr 2020	Low Tide Time	1119
I40	01 Apr 2020	Comments	none
I40	14 Apr 2020	Depth (m)	9
I40	14 Apr 2020	Arrive Time	1012
I40	14 Apr 2020	Depart Time	1016
I40	14 Apr 2020	Air Temp (C)	16
I40	14 Apr 2020	Weather	Clear
I40	14 Apr 2020	Visibility (mi)	8
I40	14 Apr 2020	Wind Speed (kts)	10
I40	14 Apr 2020	Wind Dir	S
I40	14 Apr 2020	Water Color	Brown
I40	14 Apr 2020	Wave Ht Low (ft)	3
I40	14 Apr 2020	Wave Period (sec)	4
I40	14 Apr 2020	Sea State	Light chop
I40	14 Apr 2020	High Tide (ft)	4.39
I40	14 Apr 2020	High Tide Time	224
I40	14 Apr 2020	Low Tide (ft)	0.12
I40	14 Apr 2020	Low Tide Time	1031
I40	14 Apr 2020	Comments	TJ river plume; Water almost completely opaque
I40	21 Apr 2020	Depth (m)	10
I40	21 Apr 2020	Arrive Time	1211
I40	21 Apr 2020	Depart Time	1218
I40	21 Apr 2020	Air Temp (C)	16
I40	21 Apr 2020	Weather	Clear
I40	21 Apr 2020	Visibility (mi)	12
I40	21 Apr 2020	Wind Speed (kts)	5
I40	21 Apr 2020	Wind Dir	S
I40	21 Apr 2020	Water Color	Brown
I40	21 Apr 2020	Wave Ht Low (ft)	4
I40	21 Apr 2020	Wave Period (sec)	13
I40	21 Apr 2020	Sea State	Light chop
I40	21 Apr 2020	High Tide (ft)	4.39
I40	21 Apr 2020	High Tide Time	904
I40	21 Apr 2020	Low Tide (ft)	0.49
I40	21 Apr 2020	Low Tide Time	1506
I40	21 Apr 2020	Comments	Possible red tide
I40	28 Apr 2020	Depth (m)	9
I40	28 Apr 2020	Arrive Time	1109
I40	28 Apr 2020	Depart Time	1112
I40	28 Apr 2020	Air Temp (C)	18

Station	Date	Parameter	Value
I40	28 Apr 2020	Weather	Haze
I40	28 Apr 2020	Visibility (mi)	8
I40	28 Apr 2020	Wind Speed (kts)	5
I40	28 Apr 2020	Wind Dir	SW
I40	28 Apr 2020	Water Color	Reddish-Brown
I40	28 Apr 2020	Wave Ht Low (ft)	3
I40	28 Apr 2020	Wave Period (sec)	9
I40	28 Apr 2020	Sea State	Calm
I40	28 Apr 2020	High Tide (ft)	2.78
I40	28 Apr 2020	High Tide Time	1511
I40	28 Apr 2020	Low Tide (ft)	0.2
I40	28 Apr 2020	Low Tide Time	755
I40	28 Apr 2020	Comments	Red tide

Table 3.10

Summary of CTD profile data from the SBOO kelp stations for each sample date.

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I19	01 Apr 2020	1	13.43	61.14	8.3	33.54	8.0	25.2	8.45
I19	01 Apr 2020	2	13.44	62.61	8.3	33.55	8.0	25.2	7.96
I19	01 Apr 2020	3	13.30	62.84	8.1	33.59	8.0	25.2	7.41
I19	01 Apr 2020	4	12.75	64.63	7.5	33.66	7.9	25.4	7.56
I19	01 Apr 2020	5	12.50	69.76	6.8	33.65	7.8	25.4	8.24
I19	01 Apr 2020	6	12.08	68.36	6.1	33.73	7.8	25.6	7.78
I19	01 Apr 2020	7	11.88	66.27	5.5	33.69	7.7	25.6	6.24
I19	01 Apr 2020	8	11.86	71.21	5.3	33.68	7.7	25.6	4.42
I19	01 Apr 2020	9	11.77	48.52	5.0	33.69	7.7	25.6	3.11
I19	01 Apr 2020	10	11.73	30.39	4.8	33.69	7.7	25.6	2.50
I19	10 Apr 2020	1	15.91	52.28	8.2	33.19	8.1	24.4	3.17
I19	10 Apr 2020	2	15.90	53.83	8.1	33.19	8.1	24.4	3.44
I19	10 Apr 2020	3	15.90	54.44	8.2	33.19	8.1	24.4	3.44
I19	10 Apr 2020	4	15.91	53.09	8.1	33.20	8.1	24.4	3.72
I19	10 Apr 2020	5	15.91	49.27	8.1	33.22	8.1	24.4	3.82
I19	10 Apr 2020	6	15.91	49.09	8.1	33.22	8.1	24.4	3.78
I19	10 Apr 2020	7	15.91	48.97	8.2	33.22	8.1	24.4	3.91
I19	10 Apr 2020	8	15.91	48.08	8.2	33.23	8.1	24.4	4.19
I19	10 Apr 2020	9	15.91	44.57	8.1	33.24	8.1	24.4	4.10
I19	10 Apr 2020	10	15.91	39.74	8.1	33.25	8.1	24.4	4.27
I19	14 Apr 2020	1	15.97	57.76	7.5	33.15	8.0	24.3	0.56
I19	14 Apr 2020	2	15.95	60.86	7.6	33.16	8.0	24.3	0.55
I19	14 Apr 2020	3	15.80	71.64	7.6	33.35	8.0	24.5	0.56
I19	14 Apr 2020	4	15.77	62.03	7.4	33.37	8.0	24.5	0.56
I19	14 Apr 2020	5	15.72	51.23	7.2	33.38	8.0	24.6	0.51
I19	14 Apr 2020	6	15.68	51.87	7.2	33.39	8.0	24.6	0.54
I19	14 Apr 2020	7	15.53	54.95	6.8	33.42	8.0	24.6	0.61
I19	14 Apr 2020	8	15.28	22.66	6.3	33.46	7.9	24.7	0.69
I19	14 Apr 2020	9	15.03	41.08	6.3	33.52	7.9	24.8	0.93
I19	14 Apr 2020	10	14.68	28.35	6.1	33.55	7.9	24.9	0.99
I19	21 Apr 2020	1	14.30	30.18	9.5	33.08	8.0	24.6	1.48
I19	21 Apr 2020	2	13.58	28.92	8.9	33.43	7.9	25.1	1.49
I19	21 Apr 2020	3	13.01	25.49	7.9	33.52	7.8	25.2	1.74
I19	21 Apr 2020	4	12.78	35.94	7.2	33.56	7.8	25.3	3.26
I19	21 Apr 2020	5	12.15	48.57	5.6	33.76	7.7	25.6	5.37
I19	21 Apr 2020	6	11.91	37.84	4.3	33.76	7.6	25.6	4.68
I19	21 Apr 2020	7	11.87	42.06	4.1	33.75	7.6	25.6	2.77
I19	21 Apr 2020	8	11.80	32.00	4.0	33.75	7.6	25.7	1.86
I19	21 Apr 2020	9	11.78	17.30	3.9	33.74	7.6	25.7	1.45
I19	21 Apr 2020	10	11.78	13.25	3.9	33.74	7.6	25.7	1.21
I19	28 Apr 2020	1	19.54	1.65	9.7	33.55	8.5	23.8	62.31
I19	28 Apr 2020	2	19.41	1.78	9.6	33.57	8.4	23.8	62.31
I19	28 Apr 2020	3	19.27	3.74	9.6	33.57	8.4	23.9	62.31
I19	28 Apr 2020	4	19.18	11.35	9.6	33.58	8.4	23.9	62.31
I19	28 Apr 2020	5	19.12	18.73	9.5	33.58	8.5	23.9	62.31
I19	28 Apr 2020	6	19.04	20.82	9.4	33.58	8.4	23.9	62.31
I19	28 Apr 2020	7	19.04	23.06	9.3	33.57	8.4	23.9	62.31

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I19	28 Apr 2020	8	18.07	39.46	8.9	33.71	8.4	24.3	62.04
I19	28 Apr 2020	9	16.79	49.94	8.3	33.72	8.3	24.6	41.29
I19	28 Apr 2020	10	15.94	41.13	8.0	33.71	8.2	24.8	18.06
I24	01 Apr 2020	1	14.15	69.51	8.6	33.56	8.0	25.0	3.72
I24	01 Apr 2020	2	14.14	69.69	8.6	33.57	8.0	25.0	3.82
I24	01 Apr 2020	3	14.11	69.96	8.6	33.57	8.0	25.1	3.89
I24	01 Apr 2020	4	14.06	68.68	8.6	33.57	8.0	25.1	5.59
I24	01 Apr 2020	5	13.95	66.71	8.4	33.59	8.0	25.1	9.89
I24	01 Apr 2020	6	13.68	68.00	8.0	33.61	8.0	25.2	13.13
I24	01 Apr 2020	7	13.49	74.37	7.5	33.60	7.9	25.2	12.40
I24	01 Apr 2020	8	12.76	79.16	6.6	33.71	7.9	25.4	9.90
I24	01 Apr 2020	9	12.40	81.51	5.9	33.66	7.8	25.5	7.84
I24	01 Apr 2020	10	12.40	80.21	5.7	33.65	7.8	25.5	5.72
I24	10 Apr 2020	1	15.85	69.74	8.5	33.28	8.1	24.5	3.89
I24	10 Apr 2020	2	15.85	74.43	8.5	33.30	8.1	24.5	3.84
I24	10 Apr 2020	3	15.86	74.36	8.5	33.30	8.1	24.5	3.87
I24	10 Apr 2020	4	15.86	74.25	8.5	33.30	8.1	24.5	4.10
I24	10 Apr 2020	5	15.86	74.31	8.6	33.30	8.1	24.5	4.23
I24	10 Apr 2020	6	15.87	74.15	8.5	33.32	8.1	24.5	4.27
I24	10 Apr 2020	7	15.88	71.61	8.5	33.35	8.2	24.5	4.35
I24	10 Apr 2020	8	15.88	67.55	8.5	33.34	8.2	24.5	4.51
I24	10 Apr 2020	9	15.88	61.45	8.5	33.37	8.2	24.5	4.40
I24	10 Apr 2020	10	15.88	55.94	8.6	33.37	8.2	24.5	4.40
I24	14 Apr 2020	1	16.36	58.29	9.6	33.03	8.2	24.1	2.96
I24	14 Apr 2020	2	16.22	57.11	9.6	33.11	8.2	24.2	2.91
I24	14 Apr 2020	3	15.79	53.58	9.3	33.40	8.2	24.6	4.43
I24	14 Apr 2020	4	15.61	68.70	8.6	33.43	8.1	24.6	9.86
I24	14 Apr 2020	5	15.55	77.40	8.3	33.43	8.1	24.6	7.96
I24	14 Apr 2020	6	15.53	76.71	8.3	33.43	8.1	24.6	4.83
I24	14 Apr 2020	7	15.51	74.94	8.2	33.43	8.1	24.6	3.37
I24	14 Apr 2020	8	15.51	74.16	8.2	33.43	8.1	24.6	2.73
I24	14 Apr 2020	9	15.49	70.58	8.2	33.43	8.1	24.7	2.41
I24	21 Apr 2020	1	15.39	16.84	13.5	33.57	8.4	24.8	62.31
I24	21 Apr 2020	2	14.50	24.79	12.3	33.55	8.3	25.0	62.23
I24	21 Apr 2020	3	14.45	37.05	11.1	33.50	8.2	24.9	50.37
I24	21 Apr 2020	4	13.95	42.10	9.4	33.48	8.1	25.0	39.65
I24	21 Apr 2020	5	13.91	47.80	8.3	33.52	8.0	25.1	26.41
I24	21 Apr 2020	6	13.87	52.19	8.1	33.54	8.0	25.1	11.13
I24	21 Apr 2020	7	13.62	51.76	7.4	33.60	8.0	25.2	5.38
I24	21 Apr 2020	8	12.98	44.92	6.0	33.65	7.8	25.3	3.05
I24	21 Apr 2020	9	12.42	49.44	5.2	33.80	7.8	25.6	1.90
I24	21 Apr 2020	10	12.00	22.82	4.1	33.75	7.7	25.6	1.55
I24	21 Apr 2020	11	12.03	11.16	4.0	33.72	7.6	25.6	1.53
I24	28 Apr 2020	1	19.35	62.47	12.6	33.56	8.6	23.8	3.40
I24	28 Apr 2020	2	19.28	63.00	12.6	33.59	8.6	23.9	3.89
I24	28 Apr 2020	3	18.55	71.74	12.4	33.63	8.5	24.1	3.74
I24	28 Apr 2020	4	17.53	77.90	10.3	33.69	8.4	24.4	2.51
I24	28 Apr 2020	5	16.86	77.33	9.1	33.69	8.3	24.5	1.71
I24	28 Apr 2020	6	15.52	78.39	8.9	33.75	8.2	24.9	1.30
I24	28 Apr 2020	7	15.78	75.94	8.9	33.61	8.1	24.7	1.00

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I24	28 Apr 2020	8	15.16	71.41	8.6	33.69	8.1	24.9	1.07
I24	28 Apr 2020	9	15.14	65.55	8.3	33.66	8.1	24.9	1.11
I25	01 Apr 2020	1	14.21	70.34	8.7	33.56	8.0	25.0	3.67
I25	01 Apr 2020	2	14.21	71.17	8.7	33.56	8.0	25.0	3.58
I25	01 Apr 2020	3	14.16	70.77	8.7	33.57	8.0	25.1	3.52
I25	01 Apr 2020	4	14.09	69.18	8.6	33.58	8.0	25.1	3.91
I25	01 Apr 2020	5	14.06	69.01	8.5	33.57	8.0	25.1	6.36
I25	01 Apr 2020	6	13.95	71.40	8.2	33.59	8.0	25.1	9.35
I25	01 Apr 2020	7	13.67	73.90	7.8	33.63	8.0	25.2	10.76
I25	01 Apr 2020	8	13.15	80.25	7.1	33.60	7.8	25.3	9.84
I25	10 Apr 2020	1	15.85	65.05	8.6	33.34	8.1	24.5	3.65
I25	10 Apr 2020	2	15.85	62.88	8.6	33.34	8.2	24.5	3.64
I25	10 Apr 2020	3	15.85	65.93	8.6	33.34	8.2	24.5	3.64
I25	10 Apr 2020	4	15.85	70.10	8.5	33.34	8.2	24.5	3.70
I25	10 Apr 2020	5	15.85	69.28	8.6	33.34	8.2	24.5	3.93
I25	10 Apr 2020	6	15.85	69.44	8.6	33.34	8.2	24.5	3.98
I25	10 Apr 2020	7	15.85	69.54	8.6	33.34	8.2	24.5	4.13
I25	10 Apr 2020	8	15.85	67.99	8.6	33.34	8.2	24.5	4.02
I25	10 Apr 2020	9	15.85	66.23	8.5	33.35	8.2	24.5	3.95
I25	14 Apr 2020	1	16.40	69.17	10.3	33.12	8.3	24.2	2.51
I25	14 Apr 2020	2	16.27	66.22	10.2	33.19	8.2	24.3	2.61
I25	14 Apr 2020	3	15.70	60.11	9.5	33.46	8.2	24.6	3.21
I25	14 Apr 2020	4	15.56	68.22	8.9	33.46	8.1	24.7	4.32
I25	14 Apr 2020	5	15.56	78.74	8.7	33.45	8.1	24.7	4.82
I25	14 Apr 2020	6	15.51	80.53	8.5	33.45	8.1	24.7	4.70
I25	14 Apr 2020	7	15.50	80.87	8.5	33.45	8.1	24.7	4.45
I25	14 Apr 2020	8	15.50	80.90	8.4	33.45	8.1	24.7	3.62
I25	21 Apr 2020	1	15.09	24.01	13.3	33.52	8.4	24.8	28.88
I25	21 Apr 2020	2	14.92	40.22	12.7	33.62	8.3	24.9	29.81
I25	21 Apr 2020	3	14.17	62.06	10.5	33.60	8.2	25.1	29.78
I25	21 Apr 2020	4	14.16	68.74	10.0	33.59	8.2	25.1	24.13
I25	21 Apr 2020	5	14.15	72.55	10.0	33.60	8.2	25.1	17.43
I25	21 Apr 2020	6	14.10	70.65	9.8	33.61	8.2	25.1	12.27
I25	21 Apr 2020	7	13.23	53.73	7.7	33.75	7.9	25.4	9.57
I25	21 Apr 2020	8	12.10	46.89	5.5	33.85	7.8	25.7	8.33
I25	28 Apr 2020	1	19.70	60.46	12.5	33.55	8.6	23.7	5.66
I25	28 Apr 2020	2	19.01	61.10	12.6	33.62	8.6	24.0	6.27
I25	28 Apr 2020	3	18.49	69.66	12.3	33.61	8.5	24.1	5.54
I25	28 Apr 2020	4	18.18	76.67	10.5	33.64	8.4	24.2	3.93
I25	28 Apr 2020	5	16.99	74.49	9.2	33.76	8.3	24.6	2.96
I25	28 Apr 2020	6	16.26	73.54	8.8	33.67	8.2	24.7	2.20
I25	28 Apr 2020	7	15.52	69.49	8.3	33.71	8.2	24.9	1.63
I25	28 Apr 2020	8	15.43	65.94	8.1	33.66	8.1	24.8	1.31
I25	28 Apr 2020	9	15.44	65.48	8.1	33.67	8.1	24.9	1.19
I26	01 Apr 2020	1	14.20	68.41	8.7	33.56	8.0	25.0	3.16
I26	01 Apr 2020	2	14.16	68.48	8.7	33.57	8.0	25.0	3.22
I26	01 Apr 2020	3	14.13	67.02	8.7	33.57	8.0	25.1	3.82
I26	01 Apr 2020	4	14.03	66.91	8.6	33.58	8.0	25.1	4.68
I26	01 Apr 2020	5	13.96	70.68	8.3	33.58	8.0	25.1	7.35

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I26	01 Apr 2020	6	13.47	74.92	7.7	33.67	7.9	25.3	9.08
I26	01 Apr 2020	7	12.85	79.11	6.8	33.71	7.8	25.4	9.29
I26	01 Apr 2020	8	12.17	82.60	6.0	33.72	7.8	25.6	6.77
I26	01 Apr 2020	9	12.14	83.47	5.9	33.66	7.8	25.5	5.54
I26	10 Apr 2020	1	15.88	55.35	8.7	33.31	8.2	24.5	4.42
I26	10 Apr 2020	2	15.87	57.32	8.7	33.31	8.2	24.5	4.31
I26	10 Apr 2020	3	15.87	58.74	8.8	33.31	8.2	24.5	4.49
I26	10 Apr 2020	4	15.87	59.56	8.7	33.31	8.2	24.5	4.79
I26	10 Apr 2020	5	15.87	57.20	8.7	33.31	8.2	24.5	4.96
I26	10 Apr 2020	6	15.87	57.56	8.7	33.31	8.2	24.5	5.31
I26	10 Apr 2020	7	15.87	58.05	8.7	33.31	8.2	24.5	5.90
I26	10 Apr 2020	8	15.87	57.74	8.7	33.31	8.2	24.5	5.94
I26	10 Apr 2020	9	15.87	54.82	8.6	33.31	8.2	24.5	5.79
I26	14 Apr 2020	1	16.31	58.90	10.7	33.21	8.3	24.3	5.05
I26	14 Apr 2020	2	16.16	59.24	10.4	33.28	8.2	24.4	5.34
I26	14 Apr 2020	3	15.93	60.43	9.7	33.34	8.2	24.5	6.69
I26	14 Apr 2020	4	15.22	80.82	8.4	33.51	8.1	24.8	9.54
I26	14 Apr 2020	5	15.15	82.87	8.0	33.48	8.0	24.8	5.46
I26	14 Apr 2020	6	14.98	81.60	7.8	33.49	8.0	24.8	2.83
I26	14 Apr 2020	7	14.80	82.85	7.6	33.53	8.0	24.9	2.46
I26	14 Apr 2020	8	14.67	82.39	7.4	33.53	8.0	24.9	2.18
I26	14 Apr 2020	9	14.59	81.49	7.3	33.53	8.0	24.9	1.65
I26	21 Apr 2020	1	15.22	37.16	12.3	33.57	8.3	24.8	23.97
I26	21 Apr 2020	2	14.83	37.77	11.7	33.68	8.3	25.0	21.11
I26	21 Apr 2020	3	14.32	48.18	11.2	33.58	8.2	25.0	20.16
I26	21 Apr 2020	4	14.05	59.38	10.1	33.61	8.2	25.1	25.11
I26	21 Apr 2020	5	13.99	74.41	9.5	33.60	8.2	25.1	26.20
I26	21 Apr 2020	6	13.88	79.08	9.2	33.63	8.1	25.1	19.95
I26	21 Apr 2020	7	13.10	79.45	7.9	33.83	8.1	25.5	11.21
I26	21 Apr 2020	8	11.85	72.01	5.6	33.83	7.8	25.7	7.22
I26	21 Apr 2020	9	11.85	62.06	4.8	33.77	7.7	25.7	5.13
I26	28 Apr 2020	1	19.94	14.92	12.5	33.36	8.6	23.5	62.31
I26	28 Apr 2020	2	19.30	28.34	12.6	33.53	8.6	23.8	62.31
I26	28 Apr 2020	3	18.81	55.81	12.7	33.58	8.5	24.0	56.35
I26	28 Apr 2020	4	18.73	75.13	12.7	33.57	8.5	24.0	27.01
I26	28 Apr 2020	5	18.70	77.47	12.3	33.57	8.5	24.0	12.21
I26	28 Apr 2020	6	18.42	78.59	11.4	33.62	8.5	24.1	7.81
I26	28 Apr 2020	7	18.18	77.57	10.2	33.64	8.4	24.2	5.24
I26	28 Apr 2020	8	16.82	60.66	8.5	33.67	8.3	24.5	4.01
I26	28 Apr 2020	9	16.01	40.45	7.8	33.71	8.2	24.7	3.30
I32	01 Apr 2020	1	14.15	62.31	8.8	33.57	8.0	25.0	4.48
I32	01 Apr 2020	2	14.10	61.41	8.8	33.57	8.0	25.1	4.45
I32	01 Apr 2020	3	14.01	61.13	8.7	33.59	8.0	25.1	5.67
I32	01 Apr 2020	4	13.85	56.81	8.5	33.59	8.0	25.1	11.40
I32	01 Apr 2020	5	13.69	54.12	8.1	33.60	8.0	25.2	19.84
I32	01 Apr 2020	6	13.59	58.65	7.8	33.60	7.9	25.2	23.78
I32	01 Apr 2020	7	13.53	63.07	7.8	33.60	7.9	25.2	23.40
I32	01 Apr 2020	8	13.24	63.92	7.6	33.64	7.9	25.3	19.85
I32	01 Apr 2020	9	12.94	64.69	7.2	33.66	7.9	25.4	15.62
I32	01 Apr 2020	10	12.79	63.38	7.0	33.62	7.8	25.4	12.74

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I32	10 Apr 2020	1	15.79	18.54	7.9	32.45	8.1	23.8	5.41
I32	10 Apr 2020	2	15.80	16.18	8.3	32.49	8.2	23.9	5.01
I32	10 Apr 2020	3	15.82	22.77	8.4	32.54	8.2	23.9	5.22
I32	10 Apr 2020	4	15.90	30.62	8.6	33.04	8.2	24.3	5.47
I32	10 Apr 2020	5	15.89	40.05	8.6	33.09	8.2	24.3	5.28
I32	10 Apr 2020	6	15.88	48.93	8.6	33.25	8.2	24.4	5.37
I32	10 Apr 2020	7	15.85	53.34	8.5	33.26	8.2	24.4	4.99
I32	10 Apr 2020	8	15.84	55.22	8.4	33.28	8.2	24.5	5.34
I32	10 Apr 2020	9	15.84	53.40	8.4	33.28	8.2	24.5	5.24
I32	10 Apr 2020	10	15.85	38.03	8.2	33.31	8.2	24.5	4.63
I32	14 Apr 2020	1	16.24	58.34	9.9	33.23	8.2	24.3	4.02
I32	14 Apr 2020	2	16.23	58.38	9.9	33.23	8.2	24.3	3.99
I32	14 Apr 2020	3	16.19	57.59	9.8	33.25	8.2	24.4	4.77
I32	14 Apr 2020	4	16.02	57.39	9.6	33.32	8.2	24.5	8.38
I32	14 Apr 2020	5	15.86	67.01	9.1	33.38	8.1	24.5	13.78
I32	14 Apr 2020	6	15.80	82.78	8.8	33.38	8.1	24.5	12.57
I32	14 Apr 2020	7	15.75	85.51	8.3	33.39	8.1	24.6	6.58
I32	14 Apr 2020	8	15.71	80.09	8.0	33.40	8.1	24.6	3.15
I32	14 Apr 2020	9	15.61	65.14	7.7	33.42	8.0	24.6	1.85
I32	21 Apr 2020	1	15.52	43.29	13.5	33.66	8.4	24.8	10.45
I32	21 Apr 2020	2	15.15	41.13	13.6	33.65	8.4	24.9	10.55
I32	21 Apr 2020	3	15.10	34.83	13.6	33.62	8.4	24.9	16.14
I32	21 Apr 2020	4	14.69	32.78	12.8	33.73	8.3	25.1	23.89
I32	21 Apr 2020	5	14.01	22.55	10.4	33.69	8.1	25.2	30.73
I32	21 Apr 2020	6	13.08	35.98	7.9	33.78	7.9	25.4	41.12
I32	21 Apr 2020	7	12.55	46.63	6.1	33.81	7.8	25.6	29.22
I32	21 Apr 2020	8	11.99	35.85	4.8	33.77	7.7	25.6	15.01
I32	21 Apr 2020	9	12.02	37.06	4.5	33.74	7.7	25.6	5.96
I32	28 Apr 2020	1	20.89	0.58	12.2	33.45	8.7	23.3	62.31
I32	28 Apr 2020	2	20.75	0.61	12.3	33.48	8.7	23.4	62.31
I32	28 Apr 2020	3	20.54	0.65	12.3	33.51	8.7	23.5	62.31
I32	28 Apr 2020	4	19.43	1.09	12.0	33.61	8.6	23.8	62.31
I32	28 Apr 2020	5	18.83	3.60	9.6	33.56	8.4	24.0	62.31
I32	28 Apr 2020	6	18.22	16.72	9.8	33.60	8.4	24.1	62.31
I32	28 Apr 2020	7	18.09	40.93	10.4	33.57	8.4	24.2	62.31
I32	28 Apr 2020	8	17.69	53.47	9.8	33.61	8.4	24.3	48.20
I32	28 Apr 2020	9	17.31	54.38	8.9	33.61	8.3	24.4	28.09
I32	28 Apr 2020	10	17.20	55.69	8.7	33.59	8.3	24.4	20.38
I39	01 Apr 2020	1	13.89	81.38	8.1	33.55	8.0	25.1	2.45
I39	01 Apr 2020	2	13.86	81.17	8.0	33.56	8.0	25.1	2.47
I39	01 Apr 2020	3	13.66	81.33	7.8	33.58	8.0	25.2	2.55
I39	01 Apr 2020	4	13.53	81.89	7.5	33.62	8.0	25.2	2.76
I39	01 Apr 2020	5	12.91	82.99	6.9	33.67	7.9	25.4	2.92
I39	01 Apr 2020	6	12.78	85.46	6.5	33.63	7.8	25.4	2.91
I39	01 Apr 2020	7	12.67	86.92	6.3	33.64	7.8	25.4	2.59
I39	01 Apr 2020	8	12.50	87.53	6.2	33.64	7.8	25.4	2.38
I39	01 Apr 2020	9	12.46	88.00	6.1	33.63	7.8	25.4	2.08
I39	01 Apr 2020	10	12.41	88.15	6.0	33.64	7.8	25.5	1.91
I39	01 Apr 2020	11	12.10	88.35	5.8	33.69	7.8	25.5	1.96
I39	01 Apr 2020	12	11.86	88.73	5.5	33.70	7.8	25.6	1.71

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I39	01 Apr 2020	13	11.66	89.46	5.2	33.73	7.7	25.7	1.47
I39	01 Apr 2020	14	11.32	90.09	5.0	33.76	7.7	25.8	1.26
I39	01 Apr 2020	15	11.30	90.24	4.9	33.74	7.7	25.7	0.97
I39	01 Apr 2020	16	11.29	90.31	4.8	33.74	7.7	25.7	0.71
I39	01 Apr 2020	17	11.29	90.18	4.8	33.73	7.7	25.7	0.63
I39	01 Apr 2020	18	11.29	90.22	4.8	33.73	7.7	25.7	0.57
I39	10 Apr 2020	1	15.92	71.87	8.9	33.39	8.2	24.5	3.74
I39	10 Apr 2020	2	15.91	74.58	8.9	33.40	8.2	24.5	3.62
I39	10 Apr 2020	3	15.91	74.87	9.0	33.40	8.2	24.5	3.84
I39	10 Apr 2020	4	15.91	75.00	9.0	33.40	8.2	24.5	4.05
I39	10 Apr 2020	5	15.91	74.35	9.0	33.40	8.2	24.5	4.37
I39	10 Apr 2020	6	15.91	74.52	8.9	33.40	8.2	24.5	4.48
I39	10 Apr 2020	7	15.91	74.40	9.0	33.40	8.2	24.5	4.78
I39	10 Apr 2020	8	15.91	74.38	9.0	33.40	8.2	24.5	4.70
I39	10 Apr 2020	9	15.91	74.73	9.0	33.40	8.2	24.5	4.67
I39	10 Apr 2020	10	15.91	74.89	9.0	33.40	8.2	24.5	4.82
I39	10 Apr 2020	11	15.91	74.69	8.9	33.41	8.2	24.5	4.63
I39	10 Apr 2020	12	15.91	74.73	9.0	33.41	8.2	24.5	4.73
I39	10 Apr 2020	13	15.91	74.64	9.0	33.41	8.2	24.5	4.40
I39	10 Apr 2020	14	15.91	74.95	9.0	33.41	8.2	24.5	4.49
I39	10 Apr 2020	15	15.91	75.03	8.9	33.41	8.2	24.5	4.27
I39	10 Apr 2020	16	15.91	75.82	9.0	33.41	8.2	24.5	4.22
I39	10 Apr 2020	17	15.91	77.43	9.0	33.42	8.2	24.5	4.17
I39	10 Apr 2020	18	15.91	78.74	9.0	33.42	8.2	24.6	3.91
I39	14 Apr 2020	1	16.44	83.81	10.1	33.00	8.3	24.1	0.63
I39	14 Apr 2020	2	16.35	83.79	10.0	33.06	8.3	24.2	0.63
I39	14 Apr 2020	3	15.45	83.06	9.1	33.48	8.1	24.7	0.85
I39	14 Apr 2020	4	15.15	87.03	8.5	33.51	8.1	24.8	1.63
I39	14 Apr 2020	5	15.03	87.68	8.3	33.50	8.0	24.8	1.49
I39	14 Apr 2020	6	14.89	87.84	8.1	33.52	8.0	24.9	1.21
I39	14 Apr 2020	7	14.79	87.43	8.1	33.51	8.0	24.9	1.19
I39	14 Apr 2020	8	14.74	86.82	8.0	33.52	8.0	24.9	1.44
I39	14 Apr 2020	9	14.58	86.52	7.9	33.54	8.0	24.9	1.71
I39	14 Apr 2020	10	14.44	86.79	7.8	33.54	8.0	25.0	2.04
I39	14 Apr 2020	11	14.39	87.14	7.7	33.53	8.0	25.0	2.33
I39	14 Apr 2020	12	14.35	87.10	7.6	33.53	8.0	25.0	2.63
I39	14 Apr 2020	13	14.24	87.22	7.5	33.53	8.0	25.0	2.80
I39	14 Apr 2020	14	14.20	87.39	7.4	33.54	8.0	25.0	2.75
I39	14 Apr 2020	15	13.84	88.30	7.1	33.65	7.9	25.2	2.83
I39	14 Apr 2020	16	12.98	88.25	6.4	33.71	7.9	25.4	2.92
I39	14 Apr 2020	17	12.97	88.17	6.0	33.66	7.8	25.4	2.59
I39	14 Apr 2020	18	12.69	88.73	5.8	33.71	7.8	25.5	2.79
I39	21 Apr 2020	1	14.61	70.35	9.2	33.54	8.1	24.9	2.20
I39	21 Apr 2020	2	14.13	67.77	9.7	33.61	8.2	25.1	2.59
I39	21 Apr 2020	3	13.65	73.72	8.9	33.65	8.1	25.2	3.53
I39	21 Apr 2020	4	12.78	83.72	7.0	33.71	7.9	25.4	4.71
I39	21 Apr 2020	5	12.68	84.18	6.2	33.66	7.9	25.4	4.17
I39	21 Apr 2020	6	12.56	82.41	5.9	33.66	7.8	25.4	3.41
I39	21 Apr 2020	7	12.43	81.83	5.7	33.68	7.8	25.5	3.35
I39	21 Apr 2020	8	12.37	83.50	5.6	33.67	7.8	25.5	3.08
I39	21 Apr 2020	9	12.33	83.67	5.5	33.67	7.8	25.5	2.87
I39	21 Apr 2020	10	12.31	82.78	5.4	33.67	7.8	25.5	2.82

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I39	21 Apr 2020	11	12.12	82.49	5.2	33.72	7.8	25.6	2.66
I39	21 Apr 2020	12	11.83	82.84	4.9	33.75	7.8	25.7	2.59
I39	21 Apr 2020	13	11.55	83.79	4.6	33.77	7.7	25.7	2.12
I39	21 Apr 2020	14	11.59	83.75	4.5	33.74	7.7	25.7	1.30
I39	21 Apr 2020	15	11.50	83.23	4.4	33.75	7.7	25.7	0.95
I39	21 Apr 2020	16	11.49	82.48	4.4	33.75	7.7	25.7	0.81
I39	21 Apr 2020	17	11.47	82.23	4.4	33.75	7.7	25.7	0.70
I39	21 Apr 2020	18	11.48	80.56	4.3	33.75	7.7	25.7	0.63
I39	28 Apr 2020	1	19.33	86.28	12.6	33.49	8.5	23.8	0.79
I39	28 Apr 2020	2	19.13	85.55	12.6	33.51	8.5	23.9	0.78
I39	28 Apr 2020	3	18.73	80.05	12.7	33.55	8.5	24.0	1.77
I39	28 Apr 2020	4	17.50	70.05	12.8	33.60	8.4	24.3	6.39
I39	28 Apr 2020	5	16.45	72.64	11.6	33.65	8.3	24.6	8.88
I39	28 Apr 2020	6	15.96	70.98	10.9	33.66	8.3	24.7	11.35
I39	28 Apr 2020	7	14.63	72.65	10.1	33.73	8.2	25.1	13.21
I39	28 Apr 2020	8	14.13	72.22	9.0	33.70	8.1	25.2	13.57
I39	28 Apr 2020	9	13.74	72.14	8.1	33.72	8.0	25.3	11.75
I39	28 Apr 2020	10	13.41	76.36	7.4	33.70	7.9	25.3	8.72
I39	28 Apr 2020	11	13.30	74.59	6.9	33.71	7.9	25.3	6.08
I39	28 Apr 2020	12	12.93	67.43	6.2	33.75	7.8	25.4	3.96
I39	28 Apr 2020	13	12.66	65.53	5.8	33.75	7.8	25.5	3.09
I39	28 Apr 2020	14	12.51	69.29	5.5	33.74	7.7	25.5	2.28
I39	28 Apr 2020	15	12.43	70.29	5.3	33.74	7.7	25.5	1.47
I39	28 Apr 2020	16	12.37	70.07	5.1	33.74	7.7	25.5	1.18
I39	28 Apr 2020	17	12.18	66.82	4.6	33.75	7.7	25.6	1.00
I39	28 Apr 2020	18	12.14	61.45	4.3	33.74	7.6	25.6	1.09
I40	01 Apr 2020	1	13.60	73.16	7.6	33.48	7.9	25.1	1.22
I40	01 Apr 2020	2	13.59	73.07	7.6	33.48	7.9	25.1	1.21
I40	01 Apr 2020	3	13.56	73.12	7.5	33.49	7.9	25.1	1.24
I40	01 Apr 2020	4	13.51	72.87	7.4	33.49	7.9	25.1	1.32
I40	01 Apr 2020	5	13.17	72.38	7.0	33.59	7.9	25.3	1.55
I40	01 Apr 2020	6	12.65	73.52	6.3	33.67	7.8	25.4	1.87
I40	01 Apr 2020	7	12.12	78.22	5.7	33.70	7.8	25.6	1.92
I40	01 Apr 2020	8	12.03	78.97	5.4	33.68	7.8	25.6	1.64
I40	01 Apr 2020	9	11.93	76.24	5.3	33.68	7.7	25.6	1.28
I40	10 Apr 2020	1	15.89	55.06	8.5	33.25	8.2	24.4	5.20
I40	10 Apr 2020	2	15.89	57.02	8.5	33.25	8.2	24.4	5.14
I40	10 Apr 2020	3	15.89	58.57	8.5	33.25	8.2	24.4	5.30
I40	10 Apr 2020	4	15.89	57.88	8.5	33.25	8.2	24.4	5.51
I40	10 Apr 2020	5	15.89	57.02	8.5	33.25	8.2	24.4	6.04
I40	10 Apr 2020	6	15.89	55.54	8.4	33.25	8.2	24.4	5.95
I40	10 Apr 2020	7	15.89	52.25	8.5	33.26	8.2	24.4	6.22
I40	10 Apr 2020	8	15.89	47.66	8.5	33.27	8.2	24.4	6.23
I40	10 Apr 2020	9	15.89	51.06	8.4	33.27	8.2	24.4	6.19
I40	10 Apr 2020	10	15.89	46.50	8.4	33.27	8.2	24.4	6.25
I40	14 Apr 2020	1	15.93	6.33	7.4	33.17	8.0	24.4	1.28
I40	14 Apr 2020	2	15.94	5.85	7.4	33.16	8.0	24.4	1.30
I40	14 Apr 2020	3	15.92	5.94	7.4	33.17	8.0	24.4	1.36
I40	14 Apr 2020	4	15.90	8.77	7.3	33.20	8.0	24.4	1.43
I40	14 Apr 2020	5	15.83	14.75	7.1	33.29	8.0	24.5	1.61
I40	14 Apr 2020	6	15.66	17.25	6.9	33.41	8.0	24.6	1.47

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I40	14 Apr 2020	7	15.45	16.68	6.7	33.45	8.0	24.7	1.13
I40	14 Apr 2020	8	15.05	10.13	6.3	33.50	7.9	24.8	0.96
I40	14 Apr 2020	9	14.82	6.22	5.9	33.53	7.9	24.9	0.91
I40	21 Apr 2020	1	14.75	27.94	10.4	33.05	8.1	24.5	4.62
I40	21 Apr 2020	2	14.42	25.68	10.2	33.22	8.1	24.7	4.97
I40	21 Apr 2020	3	14.23	22.38	9.9	33.28	8.1	24.8	7.11
I40	21 Apr 2020	4	13.78	29.60	8.9	33.49	8.1	25.1	11.84
I40	21 Apr 2020	5	13.19	34.31	6.8	33.64	7.9	25.3	11.03
I40	21 Apr 2020	6	12.53	41.66	5.4	33.74	7.8	25.5	7.08
I40	21 Apr 2020	7	12.40	53.81	4.7	33.73	7.7	25.5	3.64
I40	21 Apr 2020	8	11.90	50.95	4.4	33.77	7.7	25.7	1.97
I40	21 Apr 2020	9	11.84	36.67	4.2	33.74	7.6	25.6	1.27
I40	28 Apr 2020	1	20.50	3.83	12.3	33.50	8.7	23.5	62.31
I40	28 Apr 2020	2	20.41	4.63	12.3	33.50	8.7	23.5	62.31
I40	28 Apr 2020	3	20.13	5.16	12.4	33.58	8.7	23.6	62.31
I40	28 Apr 2020	4	19.49	8.81	12.4	33.64	8.6	23.9	62.31
I40	28 Apr 2020	5	18.74	35.05	10.8	33.65	8.5	24.1	62.31
I40	28 Apr 2020	6	18.27	53.24	9.3	33.64	8.4	24.2	49.32
I40	28 Apr 2020	7	18.26	58.11	9.0	33.58	8.4	24.1	26.63
I40	28 Apr 2020	8	18.03	52.44	8.6	33.64	8.4	24.2	18.26
I40	28 Apr 2020	9	16.66	49.52	8.1	33.75	8.3	24.6	14.30
I40	28 Apr 2020	10	15.39	43.08	8.0	33.76	8.1	24.9	9.99

NA = not available

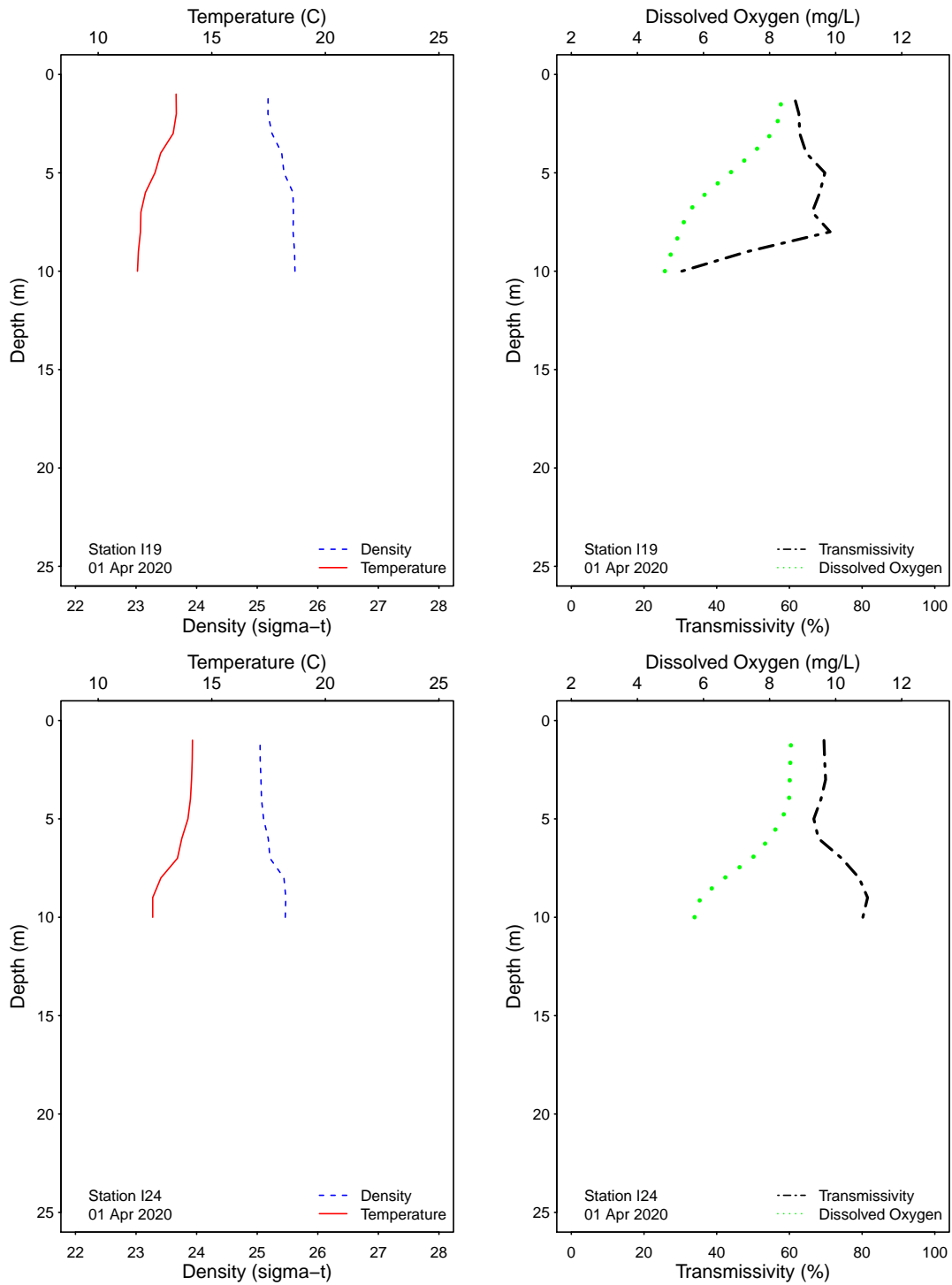


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

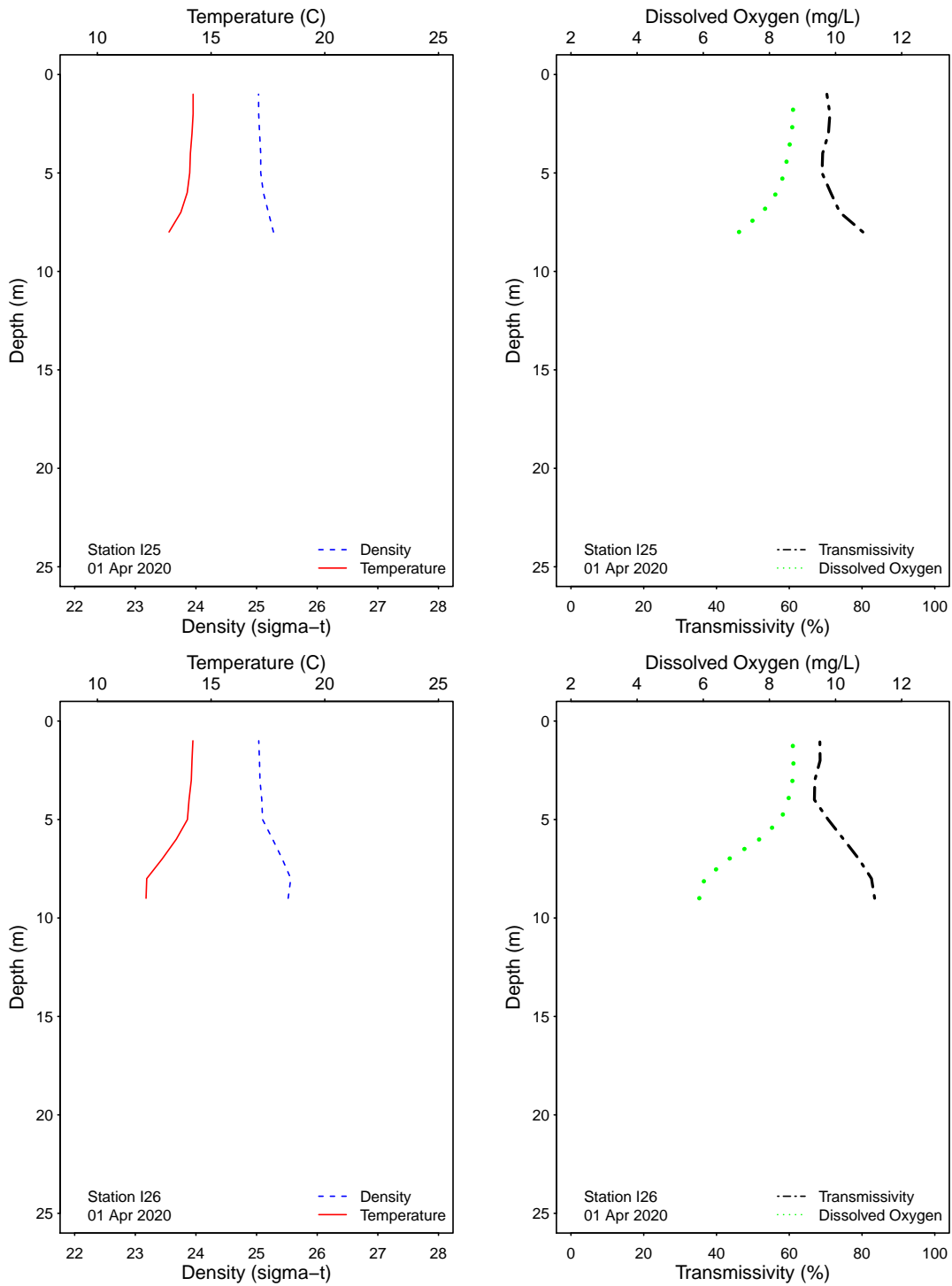


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

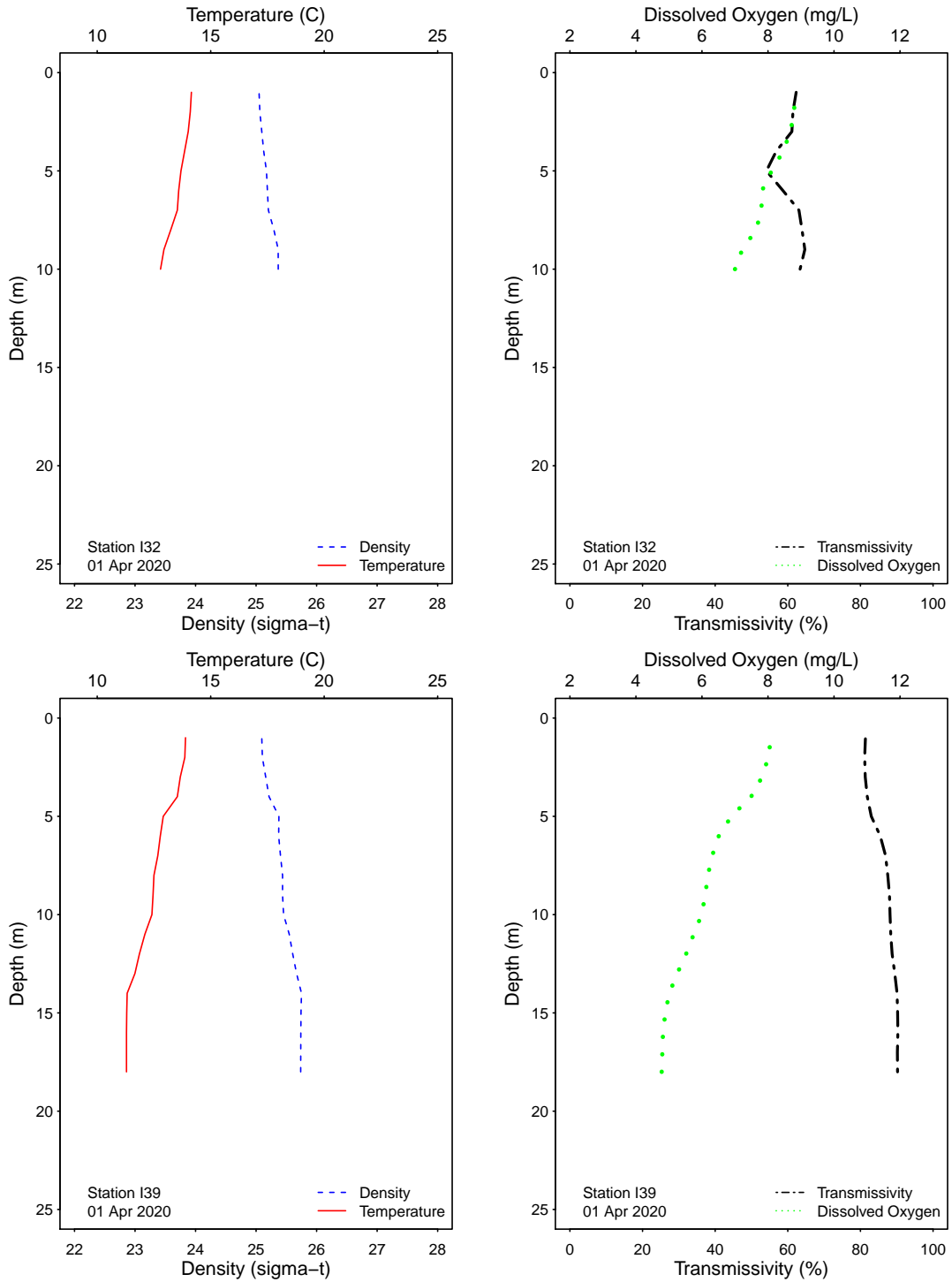


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

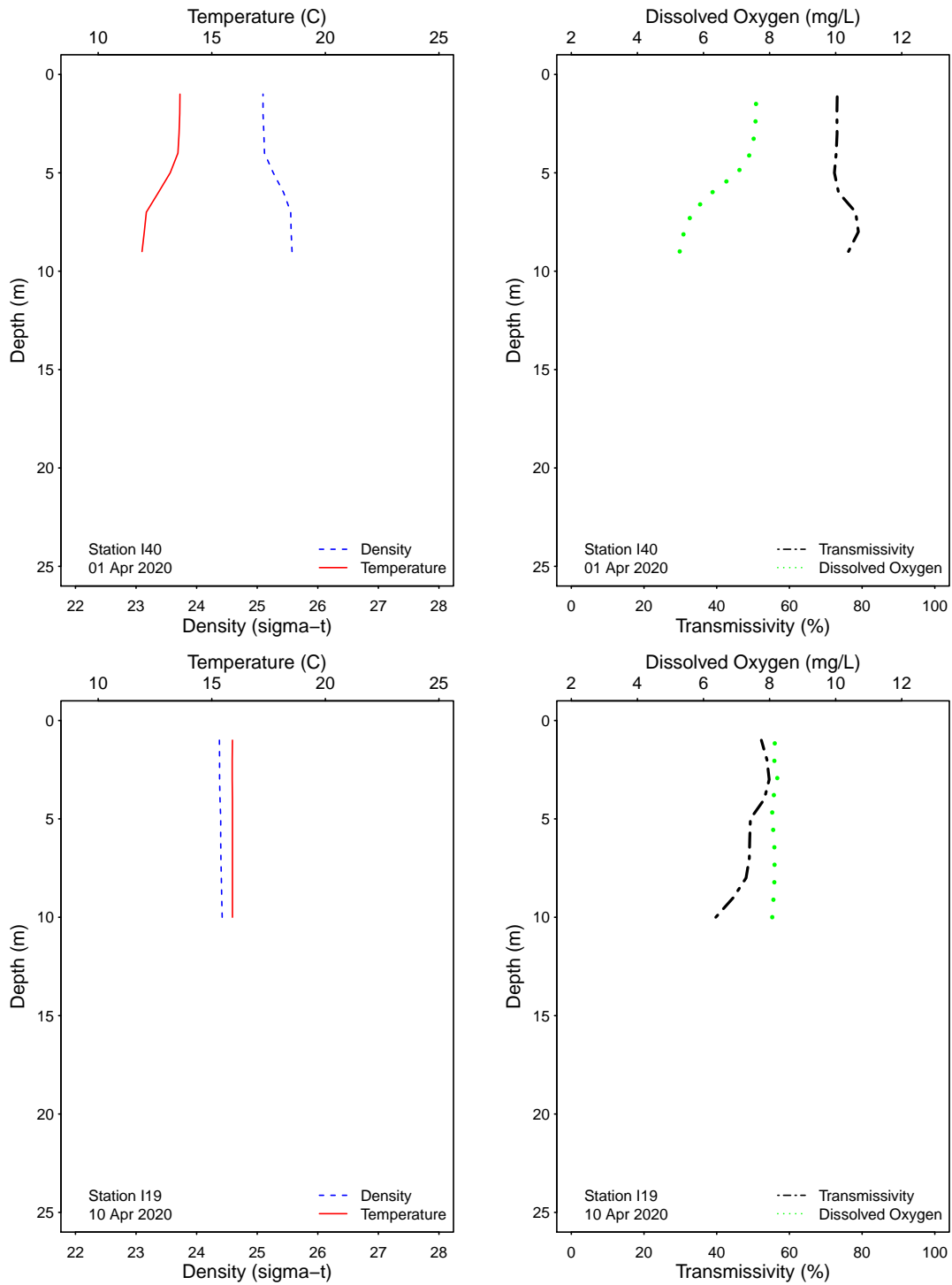


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

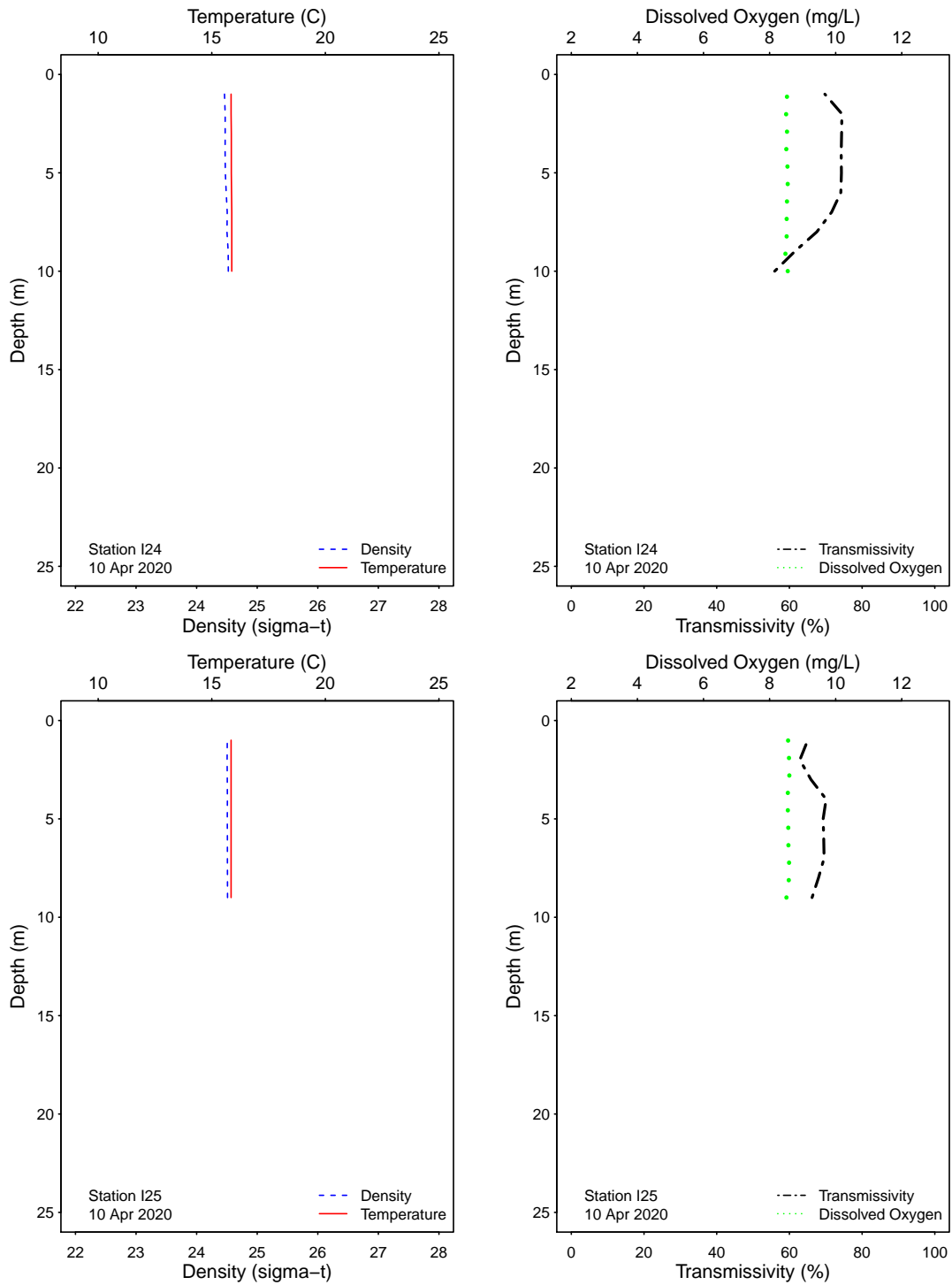


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

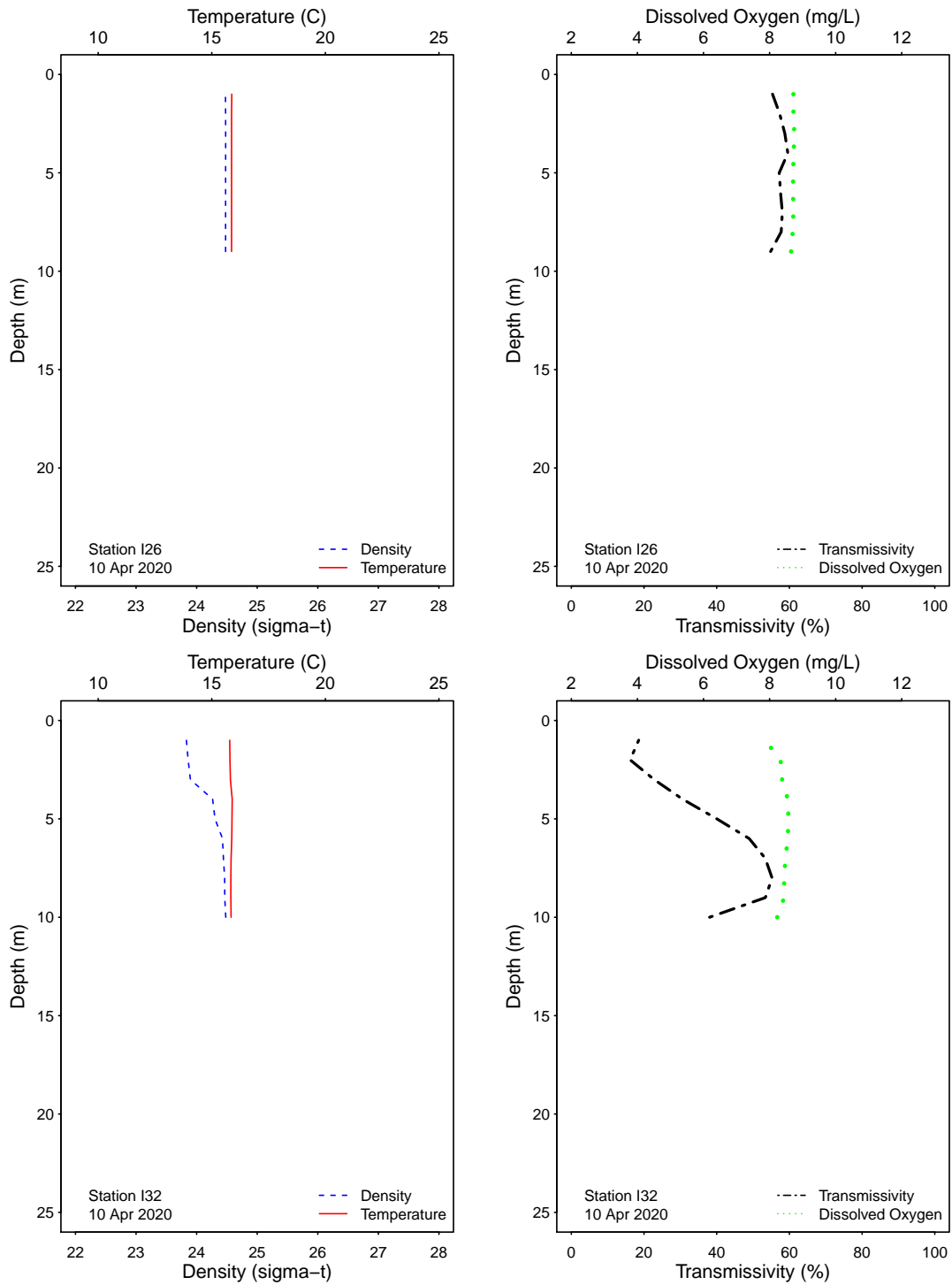


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

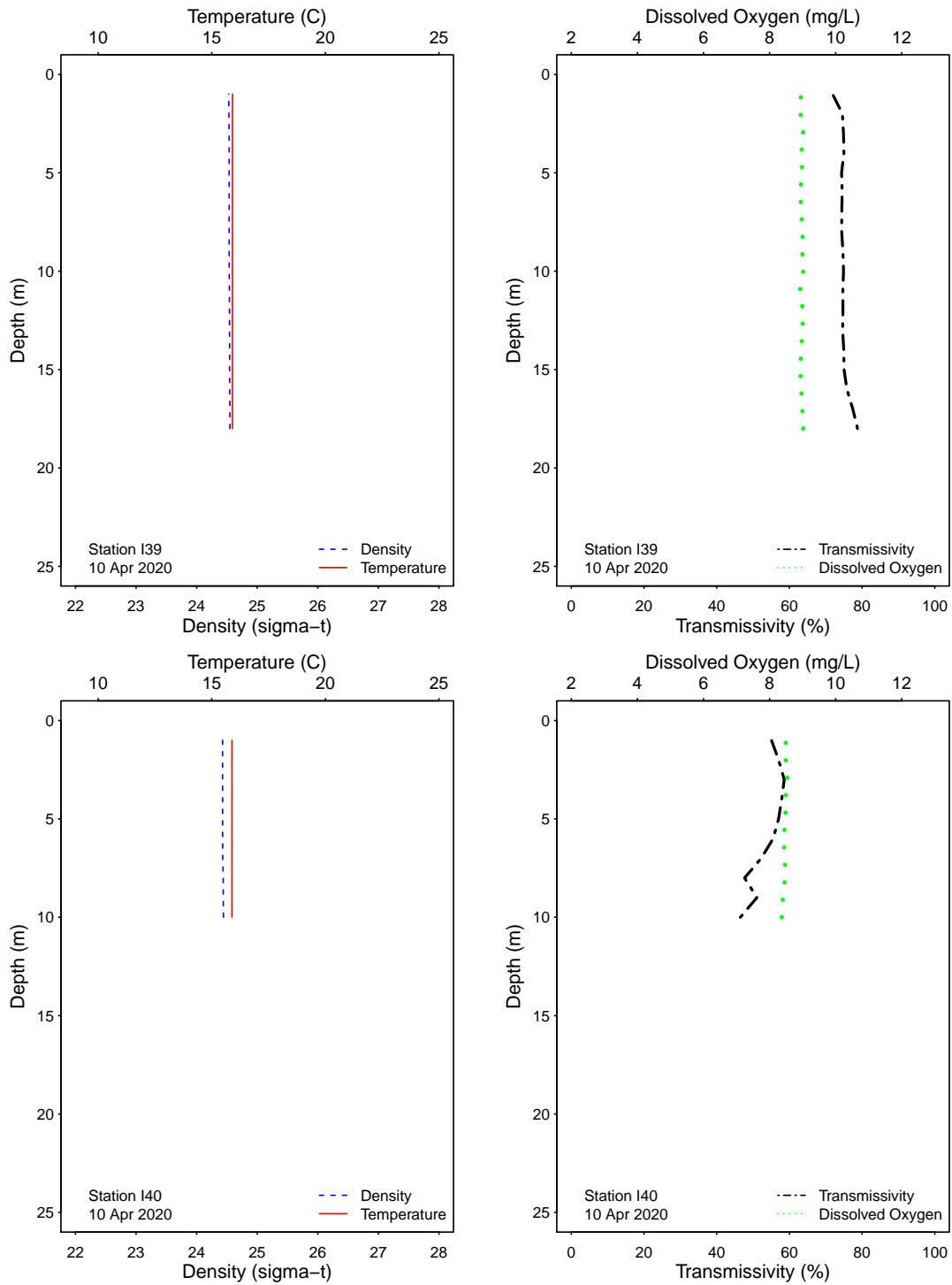


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

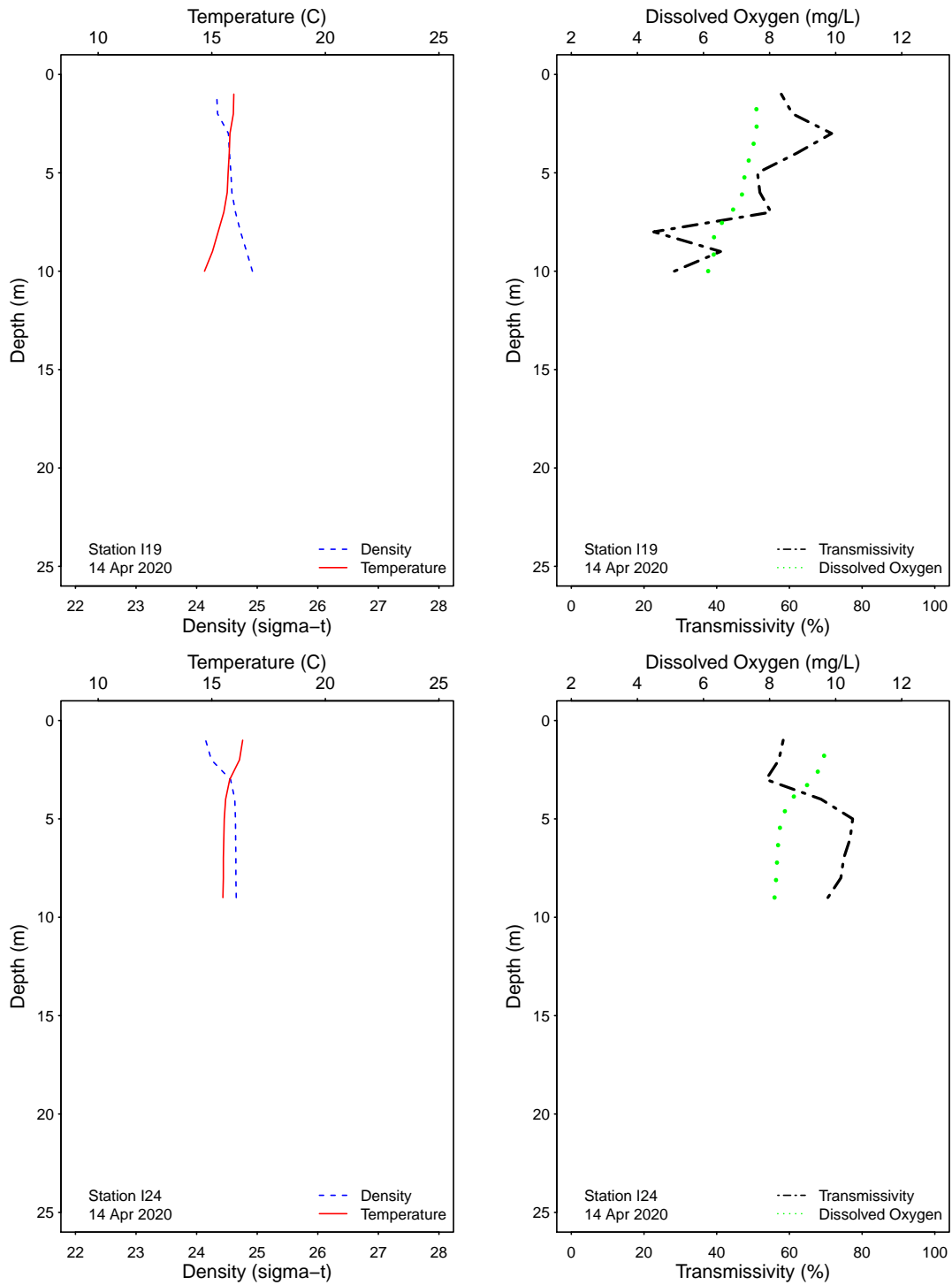


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

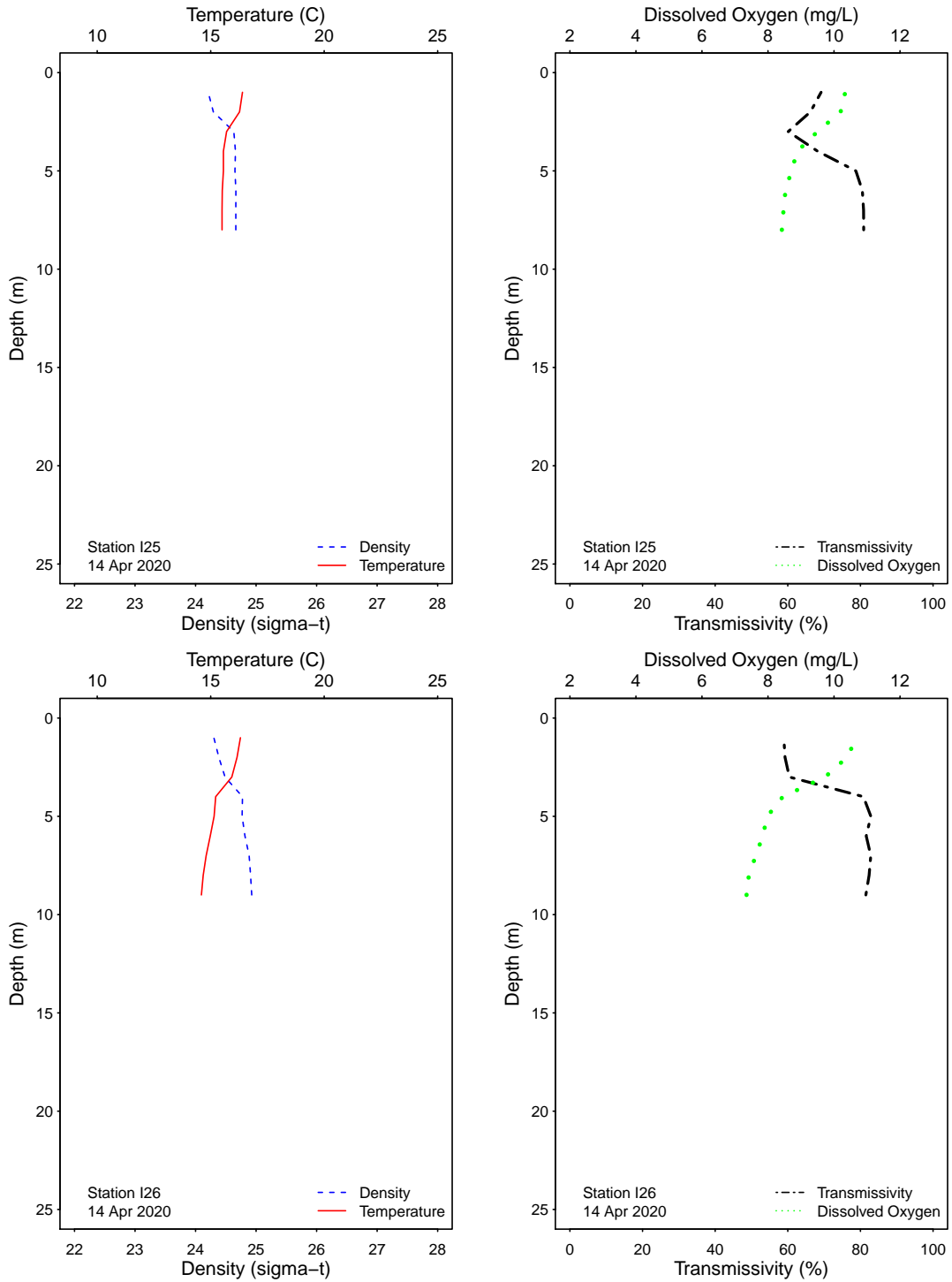


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

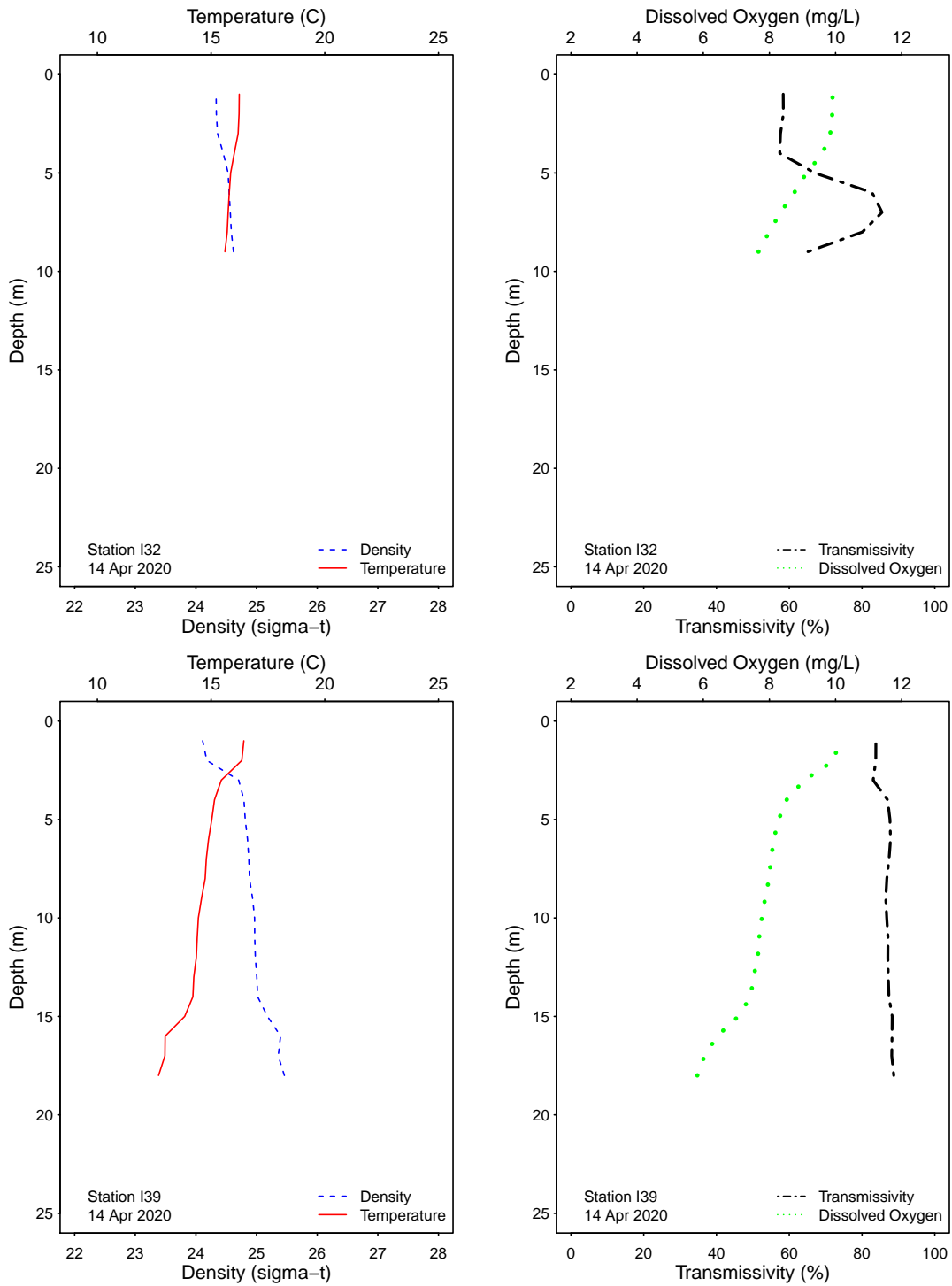


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

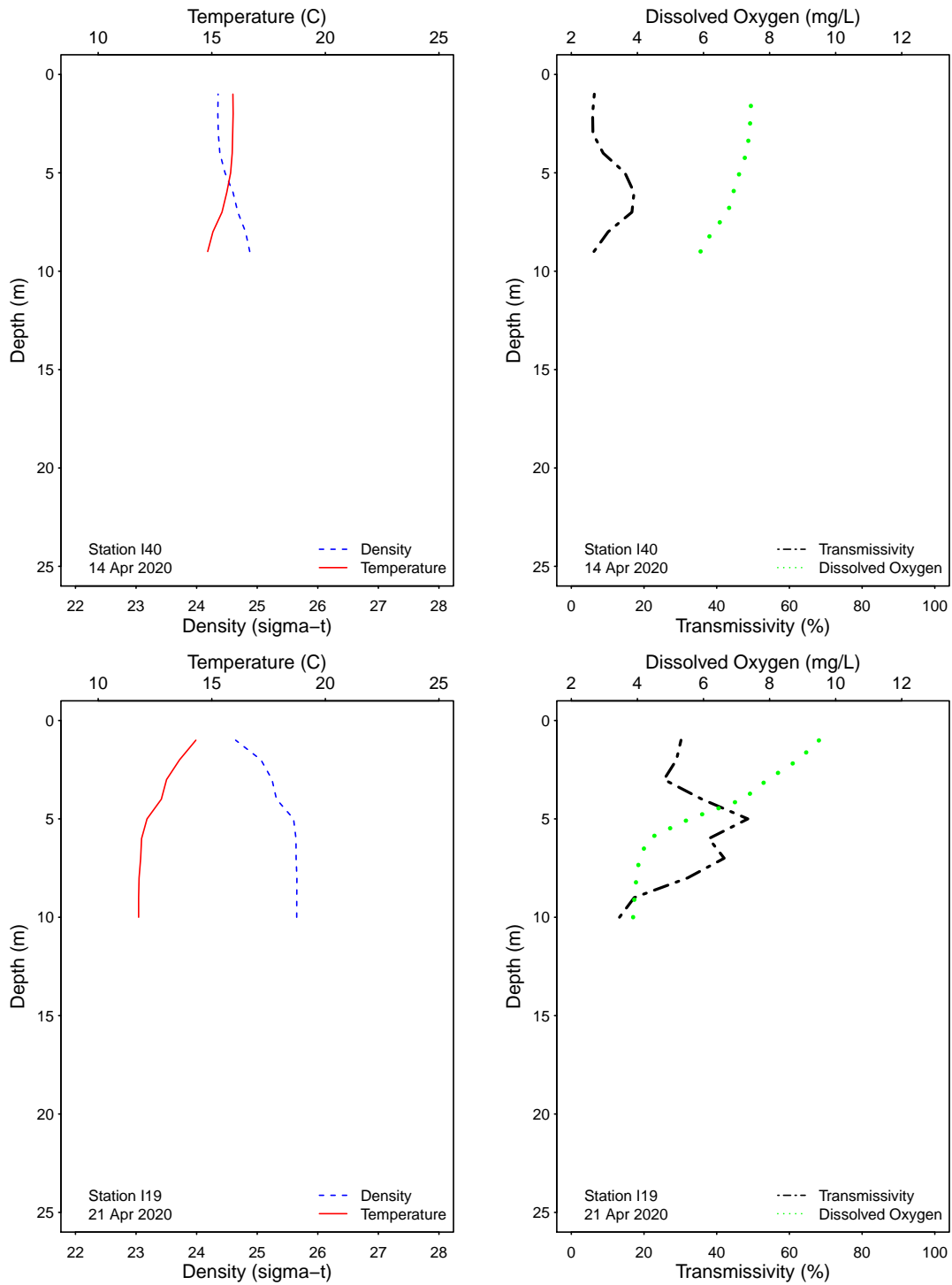


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

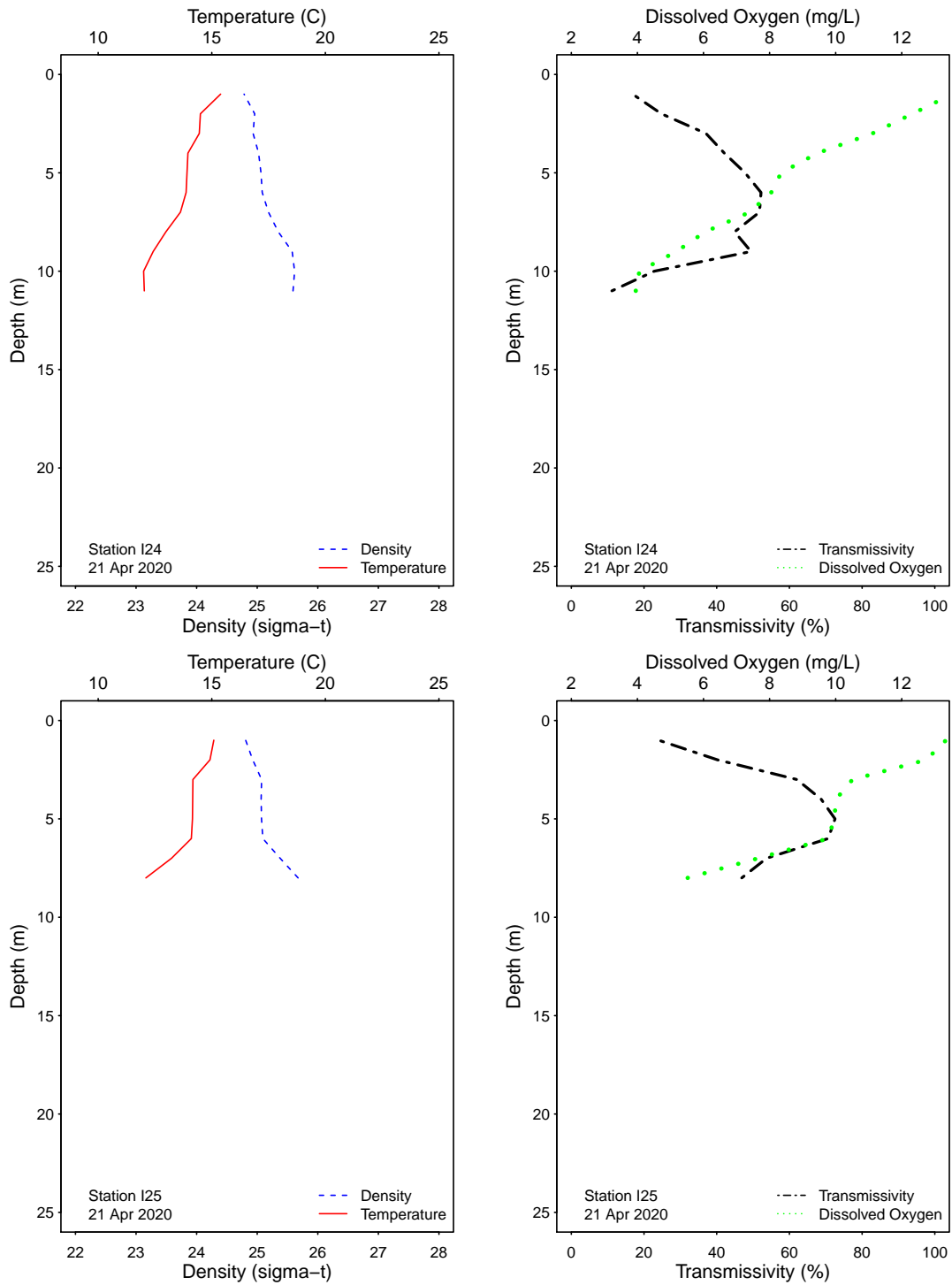


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

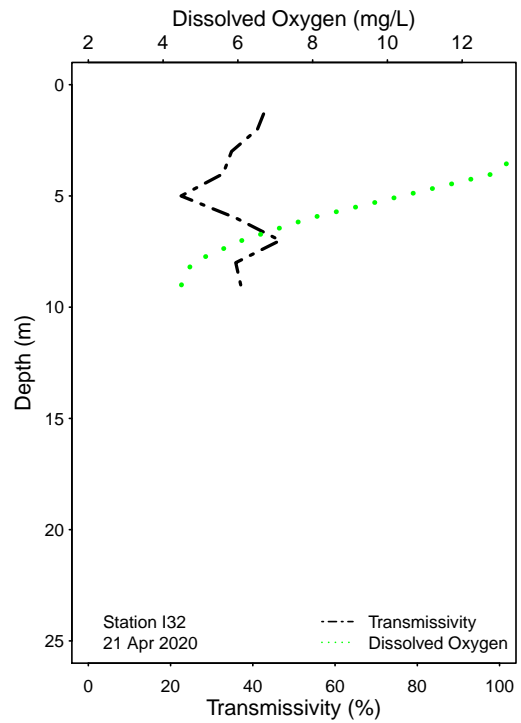
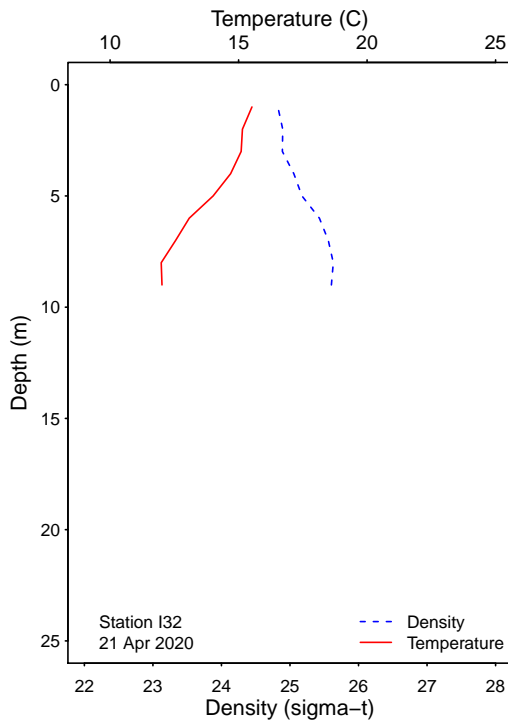
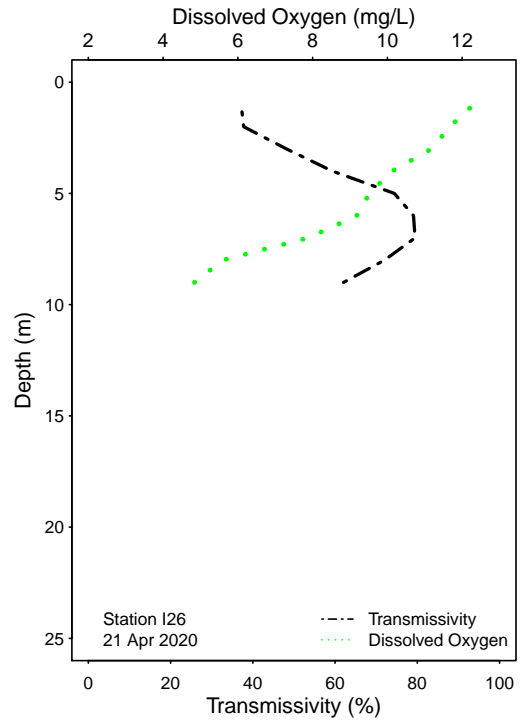
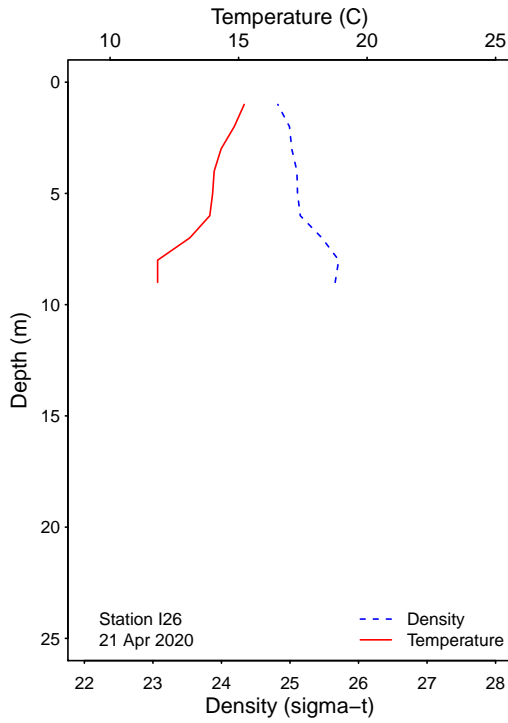


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

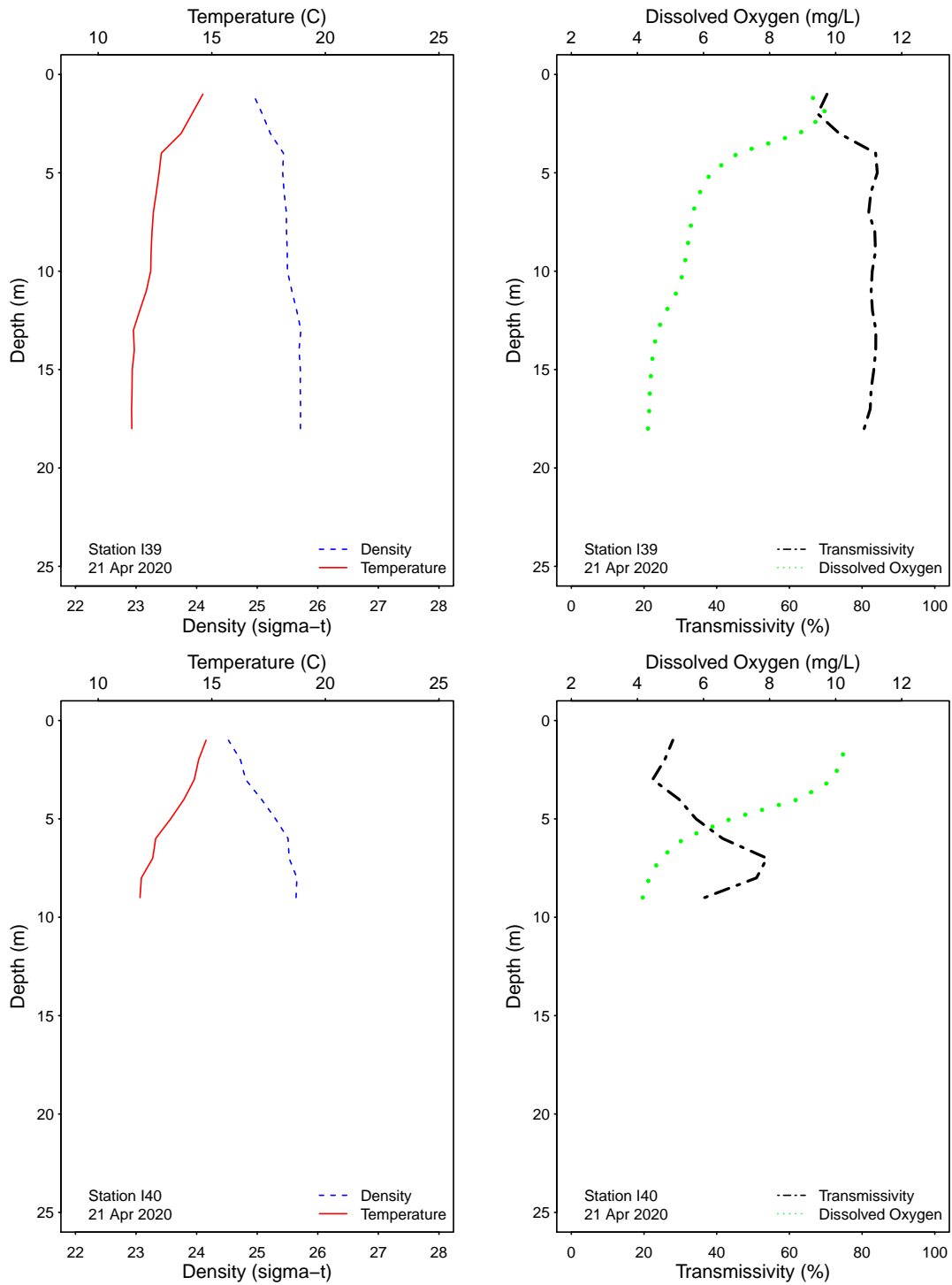


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

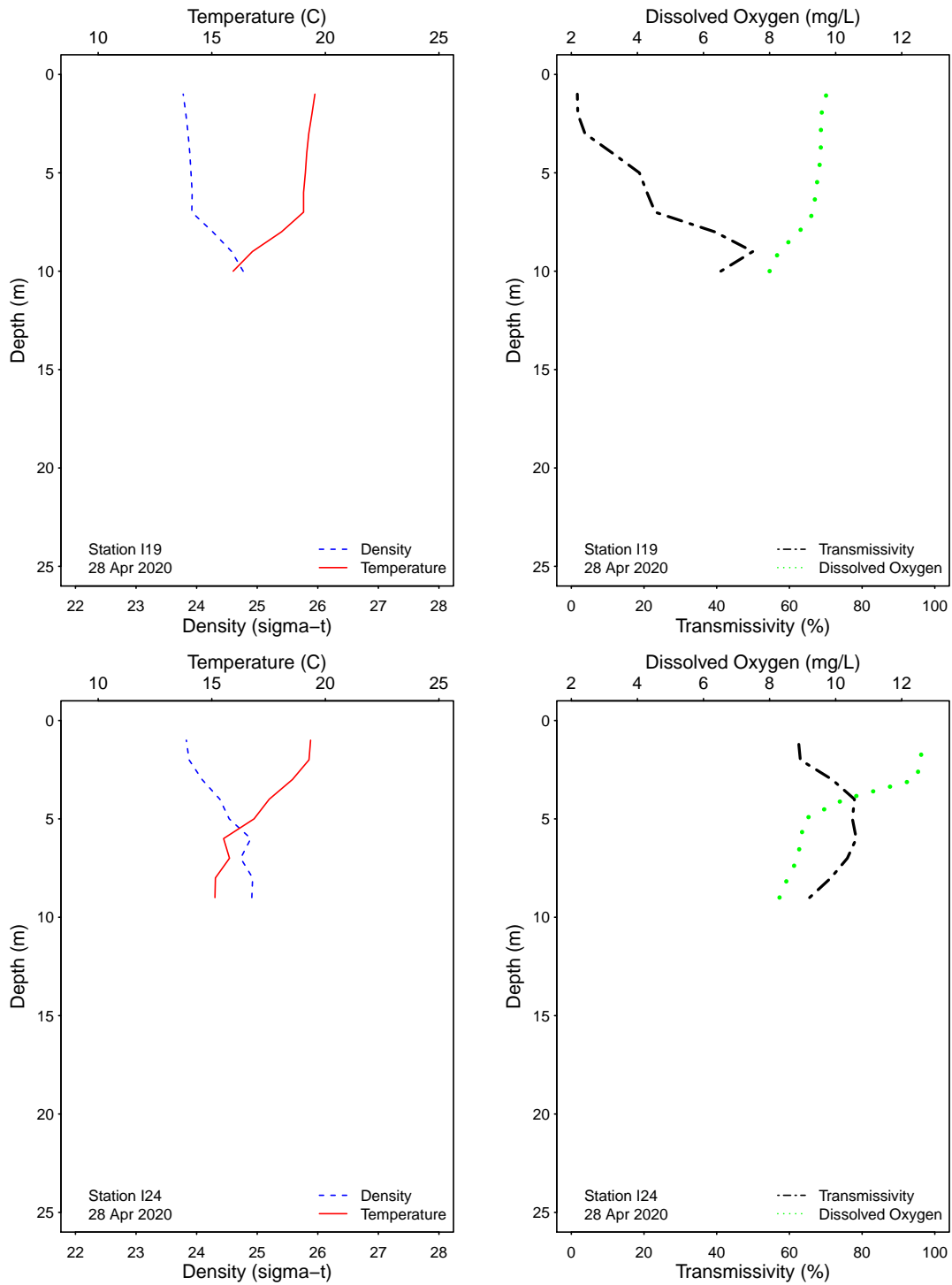


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

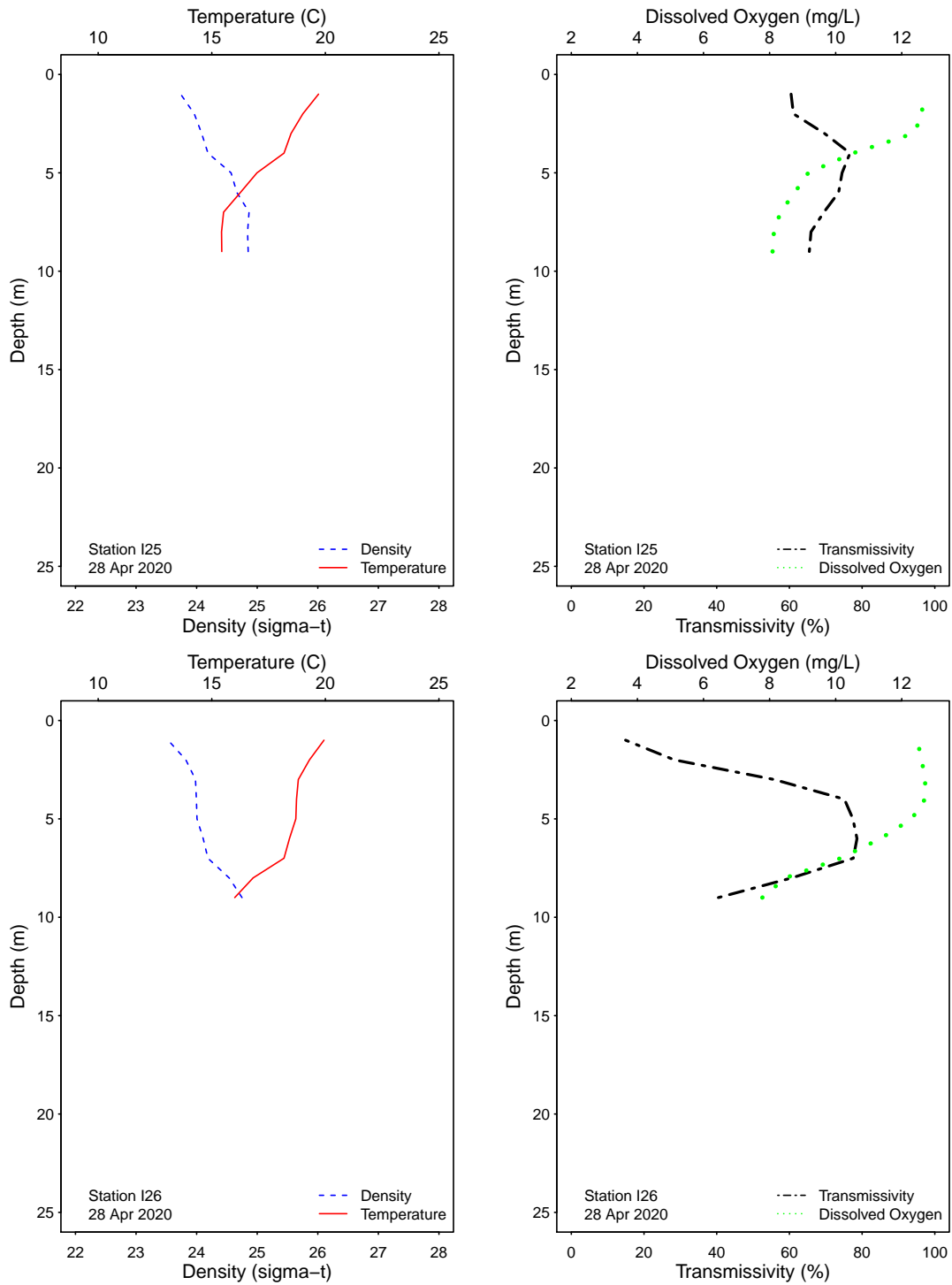


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

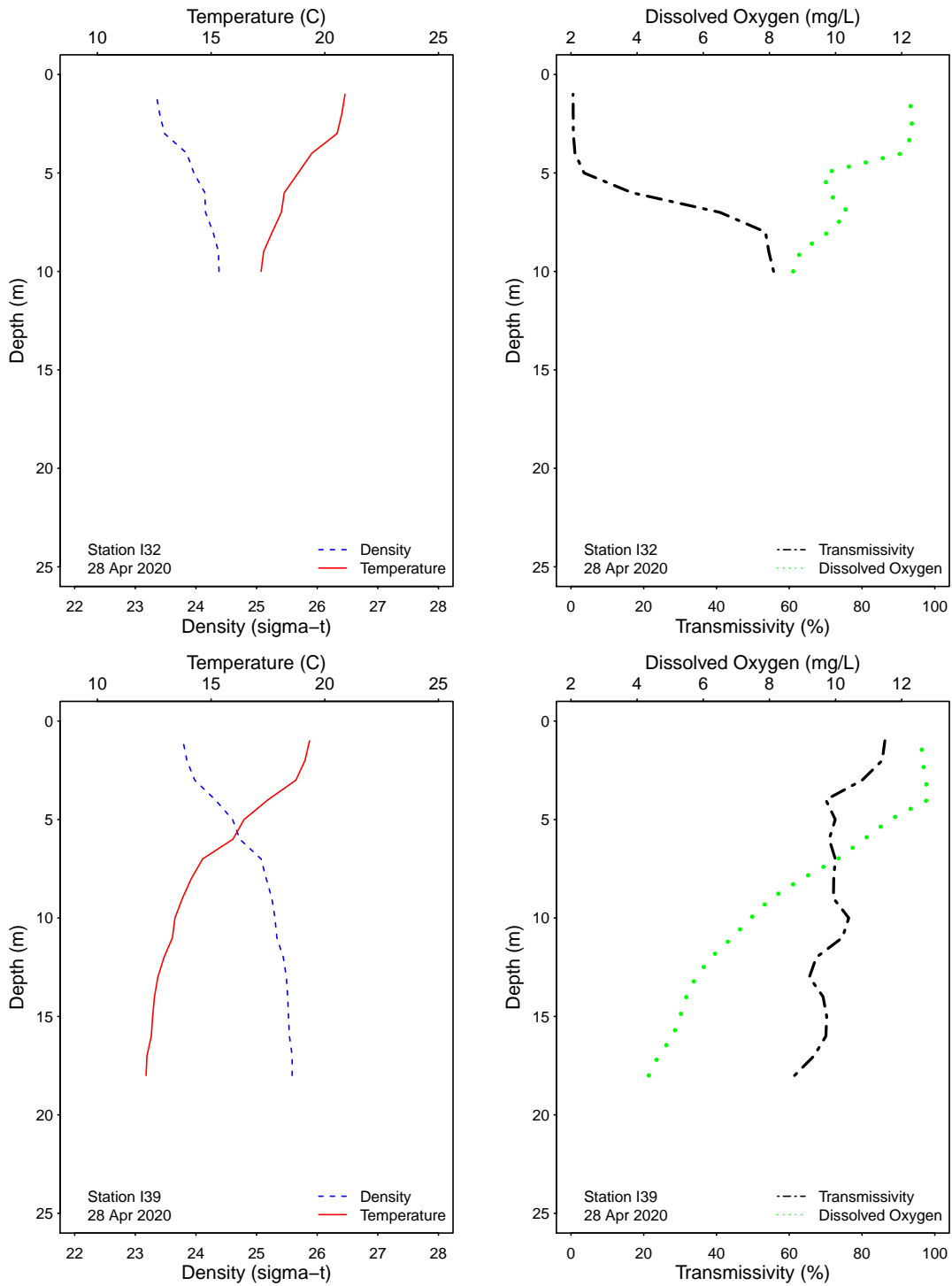


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

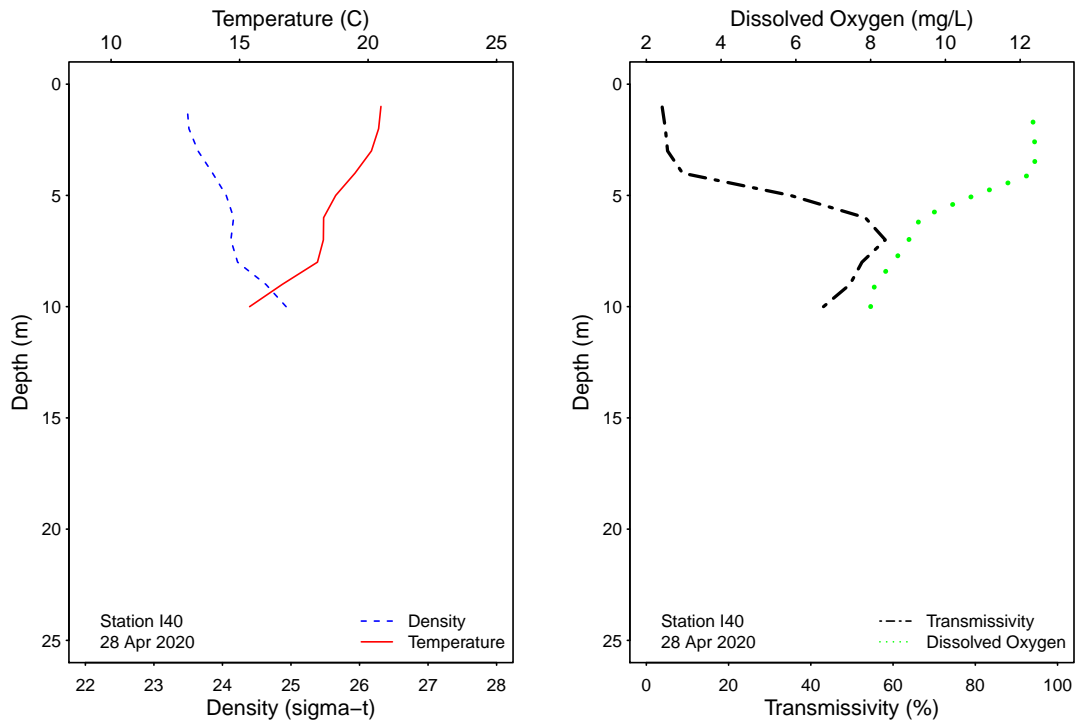


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

APPENDIX A

Quality Assurance

Table A.1

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

Station	Date	Depth	Analyst	Procedure	Total	Fecal	Entero
I19	01 Apr 2020	6	MF	LAB DUPLICATE	3000	520	110
I19	10 Apr 2020	6	JF	LAB DUPLICATE	6400	1400e	1100
I19	14 Apr 2020	6	JF	LAB DUPLICATE	5000	1200e	180e
I19	21 Apr 2020	6	BS	LAB DUPLICATE	6400	1200	240e
I19	28 Apr 2020	6	AE	LAB DUPLICATE	2800e	600e	800e
I40	01 Apr 2020	6	BS	LAB DUPLICATE	>16000	4400	1000
I40	10 Apr 2020	6	JF	LAB DUPLICATE	1100	420	280e
I40	14 Apr 2020	6	JF	LAB DUPLICATE	8000	800e	1200e
I40	21 Apr 2020	6	AE	LAB DUPLICATE	7400	1200e	460
I40	28 Apr 2020	6	JF	LAB DUPLICATE	<200	140e	60e
S12	07 Apr 2020		BS	FIELD DUPLICATE	6200	1600e	660
S12	07 Apr 2020		BS	LAB DUPLICATE	5400	960	620
S12	14 Apr 2020		LMA	FIELD DUPLICATE	400e	100e	40e
S12	14 Apr 2020		LMA	LAB DUPLICATE	220e	40e	40e
S12	21 Apr 2020		JF	FIELD DUPLICATE	160e	6e	98
S12	21 Apr 2020		JF	LAB DUPLICATE	40e	16e	78
S12	28 Apr 2020		BS	FIELD DUPLICATE	1200e	300e	200e
S12	28 Apr 2020		BS	LAB DUPLICATE	400e	180e	600

ns = not sampled

ND = no data