SD Public Utilities

SOUTH BAY OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT

SOUTH BAY WATER RECLAMATION PLANT

NPDES Permit No. CA0109045
SDRWQCB Order No. R9-2017-0023

NOVEMBER 2019

Environmental Monitoring and Technical Services
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CERTIFIED
Public Utilities Department
Continual Improvement, Prevention of Pollution, Regulatory Compliance
ISO 14001

The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring & Technical Services Division

December 31, 2019

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 November 2019 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/zs

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

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INTRODUCTION

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

MATERIALS AND METHODS

Shore Stations

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

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

Kelp Bed Stations

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

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

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

to one reading per meter. Additionally, CTD profile data for each water sample depth are presented with the bacteriological data.

Offshore Stations

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

At these offshore stations, water samples for bacteriological analyses were collected using a rosette sampler with Niskin bottles. Measurements of the physical/chemical parameters listed above were taken using a Sea-Bird CTD. Additionally, CTD profile data for depths closest to those at which bacteriological samples were collected were extracted from the CTD profiles and are presented with the bacteriological data.

Bacteriological Reporting and Quality Assurance

Estimated values for bacteriological analyses are denoted by greater than (>), less than (<), or estimated (e) qualifiers and result from plates with colony counts above or below the permissible counting limits established in Bordner et al. (1978)[1]. This document defines membrane filtration limits of 20–80 colonies per plate for total coliforms and 20–60 colonies per plate for fecal coliforms and *Enterococcus*. No Data (ND) is reported if plate counts from all dilutions have a total colony count of >200 per plate.

Results of the bacteriological analysis of seawater samples collected from each of the shore, kelp bed, and offshore stations located within State waters are assessed relative to the geometric mean and single sample maximum water-contact standards specified in the California Ocean Plan (Ocean Plan). The seven standards are defined as follows:

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

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

1 Bordner, R., J. Winter, and P. Scarpino (eds.). (1978). Microbiological Methods for Monitoring the Environment: Water and Wastes, EPA Research and Development, EPA-600/8-78-017. 337 p.

Single Sample Maximums:

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

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

Quality controls of bacteriological data include laboratory and field duplicate analyses. Laboratory duplicates are performed on approximately 10% of the water quality samples, while field duplicates are performed six times a month (see Appendix A). Laboratory duplicates represent two aliquots of the original sample that are split in the laboratory and analyzed by the same analyst using identical procedures within the same analytical run. The results of these analyses provide a measure of intra-analyst precision. In contrast, field duplicates represent two separate samples collected at the same time from the same site, which are handled under identical circumstances and treated exactly the same throughout field and lab procedures. The results of these analyses provide a measure of precision associated with sample collection, preservation, storage, and lab procedures. The sign test (see Gilbert, 1987[2]) 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 2019 Quality Assurance Report, which will be completed in March 2020.

SUMMARY OF RESULTS

- **Shoreline Water Quality Sampling**
  - Due to site access restrictions in Mexico, the South Bay shoreline sampling is typically carried out on the same day each week (i.e., Tuesday) to coordinate sampling between the Mexican and USA based stations. Seawater samples at the three shore stations located south of the USA/Mexico border (i.e., stations S0, S2 and S3) are presently collected by the Comisión Internacional de Límites y Aguas (CILA) and transported to the USIBWC for subsequent delivery to the City's Marine Microbiology Lab, while samples from the eight stations located in USA waters are sampled by City staff.
  - The 11 shore stations (S0, S2, S3, S4, S5, S6, S8, S9, S10, S11, S12) were sampled on November 5, 12, 19, and 26.
  - During November, six of 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 *Enterococcus* was exceeded at stations S4, S6, 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) standard for total coliform densities was exceeded at stations S4, S10, S11, and S12.
        - The SSM standard for fecal coliform densities was exceeded at stations S4, S6, S10, and S12.
        - The SSM standard for *Enterococcus* bacteria was exceeded at stations S4, S6, 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, S10, and S12.
        - Per permit requirements, resamples were collected in response to these SSM exceedances (see Table 2.8 for details). Note that an additional resample was collected at station S12 on November 28 due to revised fecal coliform values determined from quality assurance procedures.
    - 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 on November 5, 19, and 26 at station S0 and on November 26 at station S2.
    - 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).
    - Notable observations included a sewage-like odor on November 19 at stations S5 and S11, on November 26 at stations S8 and S12, and on November 29 at stations S4 and S10.
- **Kelp Bed Water Quality Sampling**
    - The seven kelp bed water quality stations (I19, I24, I25, I26, I32, I39, I40) were sampled on November 4, 12, 18, and 25.
    - During November, six of seven stations were out of compliance with various Ocean Plan water contact standards on one or more days as follows:
        - The single sample maximum (SSM) standard for total coliform densities was exceeded at stations I24, I25, I26, and I40.
        - The SSM standard for fecal coliform densities was exceeded at stations I19, I24, I25, I26, and I40.
        - The SSM standard for *Enterococcus* bacteria was exceeded at stations 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 coliform/total coliform ratio exceeds 0.1 was exceeded at stations I19, I24, I25, I26, and I40.
        - Per permit requirements, resamples were collected in response to these SSM exceedances (see Table 3.8 for details).
    - Water column temperatures ranged from 14.35 to 18.00°C. The difference between surface and bottom waters ranged from 0.07 to 2.21°C.
    - Concentrations of chlorophyll *a* ranged from 0.63 to 7.10 µg/L.

- **Offshore Water Quality Sampling**
  - Quarterly offshore water quality sampling was conducted over three days during the month (i.e., November 13, 14, 15).
  - During November, all offshore stations located within State jurisdictional waters (i.e., I12, I14, I16, I18, I22, I23, I33, I36–I38) were in compliance with the relevant Ocean Plan single sample maximum standards.
  - Water column temperatures ranged from 12.73 to 18.27°C at the offshore sites. The difference between surface and bottom waters ranged from 0.58 to 4.27°C.
  - Chlorophyll *a* concentrations ranged from 0.31 to 6.23 µg/L at the offshore sites.
  - CDOM data are available upon request.
  - Nothing of sewage origin was observed at any of the offshore stations.

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TABLES AND FIGURES

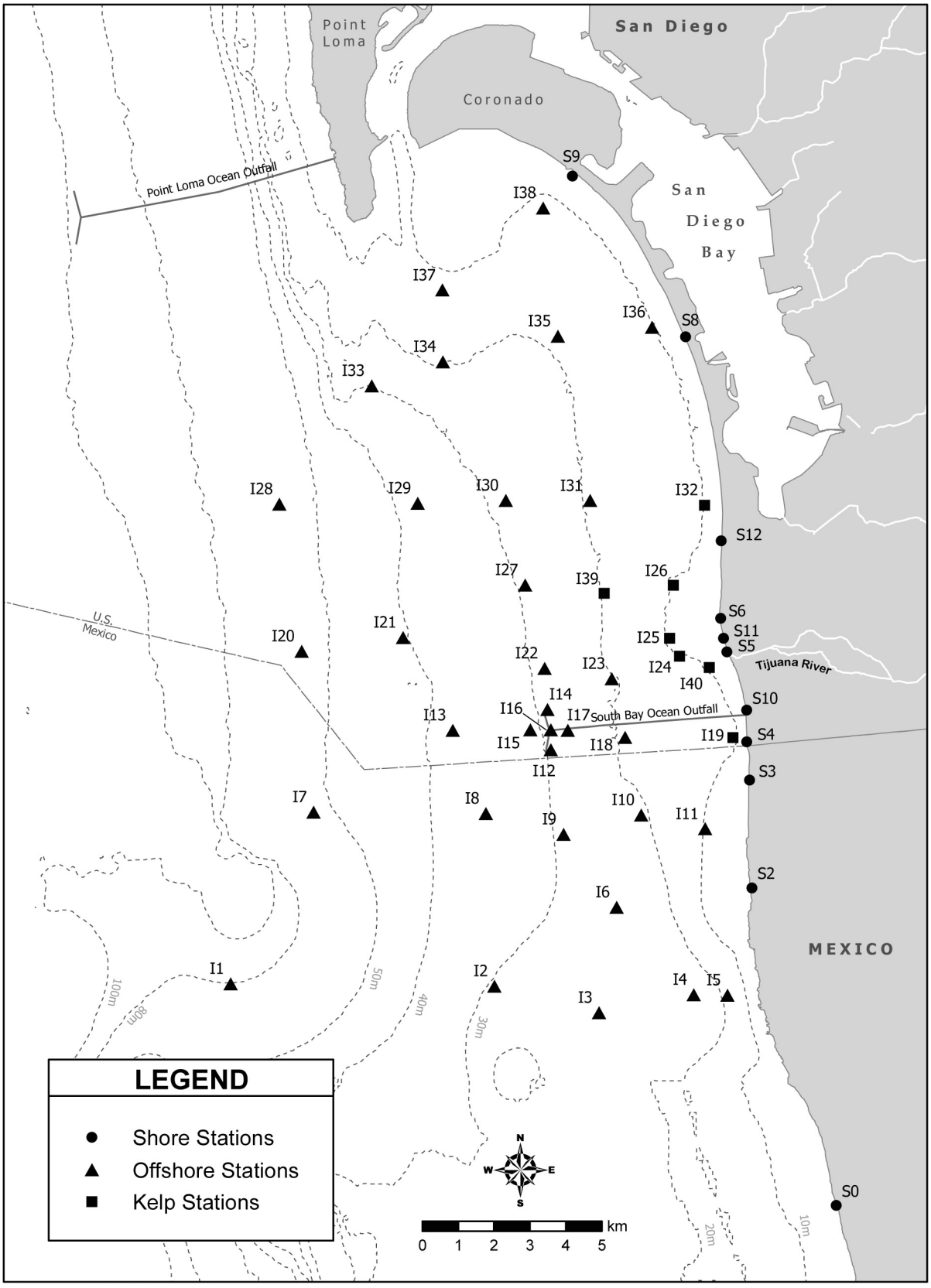

Figure 1.1 Station Map

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Shore Stations

Table 2.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for total coliform bacteria at the SBOO shore stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >1,000 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 Nov 2019	13*	11*	20*	36*	28	12*	18*	28*
02 Nov 2019	13*	11*	20*	36*	28	12*	18*	28*
03 Nov 2019	13*	11*	20*	36*	28	12*	18*	28*
04 Nov 2019	13*	11*	20*	36*	28	12*	18*	28*
05 Nov 2019	13	8	13	20	26	12	12	17
06 Nov 2019	13	8	13	20	26	12	12	17
07 Nov 2019	9*	4*	6*	11*	16	11*	6*	16*
08 Nov 2019	9*	4*	6*	11*	16	11*	6*	16*
09 Nov 2019	9*	4*	6*	11*	16	11*	6*	16*
10 Nov 2019	9*	4*	6*	11*	16	11*	6*	16*
11 Nov 2019	9*	4*	6*	11*	16	11*	6*	16*
12 Nov 2019	11	6	14	20	26	15	9	19
13 Nov 2019	11	6	14	20	26	15	9	19
14 Nov 2019	9*	8*	13*	11*	19	14*	8*	11*
15 Nov 2019	9*	8*	13*	11*	19	14*	8*	11*
16 Nov 2019	9*	8*	13*	11*	19*	14*	8*	11*
17 Nov 2019	9*	8*	13*	11*	19*	14*	8*	11*
18 Nov 2019	9*	8*	13*	11*	19*	14*	8*	11*
19 Nov 2019	11	16	9	13	19	15	9	12
20 Nov 2019	11	16	9	13	19	15	9	12
21 Nov 2019	16*	26*	13*	20*	24*	17*	13*	16*
22 Nov 2019	16*	26*	13*	20*	24*	17*	13*	16*
23 Nov 2019	16*	26*	13*	20*	24*	17*	13*	16*
24 Nov 2019	16*	26*	13*	20*	24*	17*	13*	16*
25 Nov 2019	16*	26*	13*	20*	24*	17*	13*	16*
26 Nov 2019	63	64	50	32	36	67	55	63
27 Nov 2019	159	160	50	32	36	154	142	77
28 Nov 2019	241	243	62	36*	63*	294	210	87
29 Nov 2019	486	488	62	36*	63*	573	433	208
30 Nov 2019	486	488	62	36*	63*	573	433	208

* 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 Nov 2019	2*	2*	2*	2*	4	3*	4*	3*
02 Nov 2019	2*	2*	2*	2*	4	3*	4*	3*
03 Nov 2019	2*	2*	2*	2*	4	3*	4*	3*
04 Nov 2019	2*	2*	2*	2*	4	3*	4*	3*
05 Nov 2019	2	2	2	2	3	3	4	3
06 Nov 2019	2	2	2	2	3	3	4	3
07 Nov 2019	2*	2*	2*	2*	4	2*	3*	3*
08 Nov 2019	2*	2*	2*	2*	4	2*	3*	3*
09 Nov 2019	2*	2*	2*	2*	4	2*	3*	3*
10 Nov 2019	2*	2*	2*	2*	4	2*	3*	3*
11 Nov 2019	2*	2*	2*	2*	4	2*	3*	3*
12 Nov 2019	2	2	3	3	3	2	3	3
13 Nov 2019	2	2	3	3	3	2	3	3
14 Nov 2019	2*	2*	3*	3*	2	2*	3*	3*
15 Nov 2019	2*	2*	3*	3*	2	2*	3*	3*
16 Nov 2019	2*	2*	3*	3*	2*	2*	3*	3*
17 Nov 2019	2*	2*	3*	3*	2*	2*	3*	3*
18 Nov 2019	2*	2*	3*	3*	2*	2*	3*	3*
19 Nov 2019	2	2	3	3	2	2	3	3
20 Nov 2019	2	2	3	3	2	2	3	3
21 Nov 2019	2*	2*	3*	3*	2*	3*	4*	3*
22 Nov 2019	2*	2*	3*	3*	2*	3*	4*	3*
23 Nov 2019	2*	2*	3*	3*	2*	3*	4*	3*
24 Nov 2019	2*	2*	3*	3*	2*	3*	4*	3*
25 Nov 2019	2*	2*	3*	3*	2*	3*	4*	3*
26 Nov 2019	9	5	10	3	3	14	9	12
27 Nov 2019	24	16	27	3	3	30	9	12
28 Nov 2019	39	24	45	3*	3*	52	10	37
29 Nov 2019	102	68	113	3*	3*	128	10	98
30 Nov 2019	102	68	113	3*	3*	128	10	98

* 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 Nov 2019	5*	4*	3*	2*	11	5*	4*	3*
02 Nov 2019	5*	4*	3*	2*	11	5*	4*	3*
03 Nov 2019	5*	4*	3*	2*	11	5*	4*	3*
04 Nov 2019	5*	4*	3*	2*	11	5*	4*	3*
05 Nov 2019	4	3	3	2	11	4	3	3
06 Nov 2019	4	3	3	2	11	4	3	3
07 Nov 2019	3*	3*	3*	2*	13	3*	3*	2*
08 Nov 2019	3*	3*	3*	2*	13	3*	3*	2*
09 Nov 2019	3*	3*	3*	2*	13	3*	3*	2*
10 Nov 2019	3*	3*	3*	2*	13	3*	3*	2*
11 Nov 2019	3*	3*	3*	2*	13	3*	3*	2*
12 Nov 2019	3	4	3	3	14	3	3	3
13 Nov 2019	3	4	3	3	14	3	3	3
14 Nov 2019	3*	4*	3*	3*	7	2*	3*	3*
15 Nov 2019	3*	4*	3*	3*	7	2*	3*	3*
16 Nov 2019	3*	4*	3*	3*	6*	2*	3*	3*
17 Nov 2019	3*	4*	3*	3*	6*	2*	3*	3*
18 Nov 2019	3*	4*	3*	3*	6*	2*	3*	3*
19 Nov 2019	4	4	3	3	6	3	4	3
20 Nov 2019	4	4	3	3	6	3	4	3
21 Nov 2019	5*	4*	3*	3*	6*	3*	5*	3*
22 Nov 2019	5*	4*	3*	3*	6*	3*	5*	3*
23 Nov 2019	5*	4*	3*	3*	6*	3*	5*	3*
24 Nov 2019	5*	4*	3*	3*	6*	3*	5*	3*
25 Nov 2019	5*	4*	3*	3*	6*	3*	5*	3*
26 Nov 2019	11	7	9	5	9	12	9	8
27 Nov 2019	22	7	15	5	9	23	15	13
28 Nov 2019	36	6	17	6*	12*	37	17	17
29 Nov 2019	94	6	50	6*	12*	96	51	50
30 Nov 2019	94	6	50	6*	12*	96	51	50

* 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
05 Nov 2019	IC	IC	IC	IC	IC	IC	IC	IC
12 Nov 2019	IC	IC	IC	IC	IC	IC	IC	IC
19 Nov 2019	IC	IC	IC	IC	IC	IC	IC	IC
26 Nov 2019	E	IC	IC	IC	IC	E	E	E
27 Nov 2019	E	E	ns	ns	ns	IC	E	IC
28 Nov 2019	ns	ns	ns	ns	ns	ns	ns	ns
29 Nov 2019	E	E	ns	ns	ns	E	E	E

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
05 Nov 2019	IC	IC	IC	IC	IC	IC	IC	IC
12 Nov 2019	IC	IC	IC	IC	IC	IC	IC	IC
19 Nov 2019	IC	IC	IC	IC	IC	IC	IC	IC
26 Nov 2019	E	IC	E	IC	IC	E	IC	E
27 Nov 2019	E	E	E	ns	ns	E	ns	ns
28 Nov 2019	ns	ns	ns	ns	ns	ns	ns	E
29 Nov 2019	E	E	E	ns	ns	E	ns	E

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
05 Nov 2019	IC	IC	IC	IC	IC	IC	IC	IC
12 Nov 2019	IC	IC	IC	IC	IC	IC	IC	IC
19 Nov 2019	IC	IC	IC	IC	IC	IC	IC	IC
26 Nov 2019	E	IC	E	IC	IC	E	E	E
27 Nov 2019	E	ns	E	ns	ns	E	E	E
28 Nov 2019	ns	ns	ns	ns	ns	ns	ns	ns
29 Nov 2019	E	ns	E	ns	ns	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
05 Nov 2019	IC	IC	IC	IC	IC	IC	IC	IC
12 Nov 2019	IC	IC	IC	IC	IC	IC	IC	IC
19 Nov 2019	IC	IC	IC	IC	IC	IC	IC	IC
26 Nov 2019	E	E	IC	IC	IC	E	IC	E
27 Nov 2019	E	E	ns	ns	ns	E	ns	ns
28 Nov 2019	ns	ns	ns	ns	ns	ns	ns	ns
29 Nov 2019	E	E	ns	ns	ns	E	ns	E

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

Table 2.8

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

Station	Date	Time	Total	Fecal	Entero	F:T
S0	05 Nov 2019	1115	2400e	140e	880	0.06
S0	12 Nov 2019	1140	120e	2e	22e	0.02
S0	19 Nov 2019	1230	10000	2400e	2200e	0.24
S0	26 Nov 2019	958	12000	>1200	900	0.10
S2	05 Nov 2019	1320	2e	<2	<2	1.00
S2	12 Nov 2019	1220	<20	<2	<2	0.10
S2	19 Nov 2019	1155	<20	2e	4e	0.10
S2	26 Nov 2019	1133	>16000	2800e	420	0.17
S3	05 Nov 2019	1245	<20	<2	<2	0.10
S3	12 Nov 2019	1250	20e	<2	2e	0.10
S3	19 Nov 2019	1100	60e	8e	16e	0.13
S3	26 Nov 2019	1217	5400	400	64	0.07
S4	05 Nov 2019	1015	10e	2e	<2	0.20
S4	12 Nov 2019	1135	20e	<2	6e	0.10
S4	19 Nov 2019	944	16e	<2	22e	0.12
S4	26 Nov 2019	1140	>16000	3000e	300e	0.19
S4	27 Nov 2019	828	>16000	4000	740	0.25
S4	29 Nov 2019	952	>16000	>12000	>12000	0.75
S5	05 Nov 2019	834	<2	<2	<2	1.00
S5	12 Nov 2019	940	60e	2e	8e	0.03
S5	19 Nov 2019	759	<200	<2	<2	0.01
S5	26 Nov 2019	940	2200e	280e	40e	0.13
S5	27 Nov 2019	1005	>16000	3600e	ns	0.22
S5	29 Nov 2019	856	>16000	>12000	ns	0.75
S6	05 Nov 2019	853	<2	<2	<2	1.00
S6	12 Nov 2019	905	400e	18e	4e	0.04
S6	19 Nov 2019	816	<2	<2	<2	1.00
S6	26 Nov 2019	903	9400	880	440	0.09
S6	27 Nov 2019	1020	ns	2800e	180e	ns
S6	29 Nov 2019	837	ns	>12000	>12000	ns
S8	05 Nov 2019	751	<2	<2	<2	1.00
S8	12 Nov 2019	801	<200	14e	12e	0.07
S8	19 Nov 2019	720	<20	<2	<2	0.10
S8	26 Nov 2019	805	<200	2e	22e	0.01
S9	05 Nov 2019	733	<20	<2	8e	0.10
S9	12 Nov 2019	733	<200	<2	16e	0.01
S9	19 Nov 2019	703	<20	<2	4e	0.10
S9	26 Nov 2019	738	<200	18e	46	0.09
S10	05 Nov 2019	1005	12e	<2	<2	0.17
S10	12 Nov 2019	1115	60e	<2	<2	0.03
S10	19 Nov 2019	922	20e	6e	12e	0.30

Station	Date	Time	Total	Fecal	Entero	F:T
S10	26 Nov 2019	1111	>16000	11000	2800e	0.69
S10	27 Nov 2019	819	9600	1400e	500	0.15
S10	29 Nov 2019	1010	>16000	>12000	>12000	0.75
S11	05 Nov 2019	847	<2	<2	2e	1.00
S11	12 Nov 2019	1000	40e	2e	2e	0.05
S11	19 Nov 2019	810	<20	6e	12e	0.30
S11	26 Nov 2019	1003	>16000	400e	120e	0.02
S11	27 Nov 2019	1013	>16000	ns	240e	ns
S11	29 Nov 2019	845	>16000	ns	>12000	ns
S12	05 Nov 2019	812	2e	<2	<2	1.00
S12	12 Nov 2019	835	40e	8e	4e	0.20
S12	19 Nov 2019	742	<20	4e	<2	0.20
S12	26 Nov 2019	834	>16000	1800e	520	0.11
S12	27 Nov 2019	944	200e	ns	160e	ns
S12	28 Nov 2019	929	ns	640	ns	ns
S12	29 Nov 2019	821	>16000	12000	>12000	0.75

ns = not sampled
ND = no data

Comments

Station	Date	Depth	Parameter	Comments
S4	27 Nov 2019			Resample
S5	27 Nov 2019			Resample
S6	27 Nov 2019			Resample
S10	27 Nov 2019			Resample
S11	27 Nov 2019			Resample
S12	27 Nov 2019			Resample
S12	28 Nov 2019			Resample
S4	29 Nov 2019			Resample
S5	29 Nov 2019			Resample
S6	29 Nov 2019			Resample
S10	29 Nov 2019			Resample
S11	29 Nov 2019			Resample
S12	29 Nov 2019			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	05 Nov 2019	Arrive Time	1115
S0	05 Nov 2019	Weather	Sunny
S0	05 Nov 2019	Wind Speed (kts)	3.1
S0	05 Nov 2019	Wind Dir	NE
S0	05 Nov 2019	Animal Life	2 Dogs; 5 Seagulls
S0	05 Nov 2019	Floatables	None
S0	05 Nov 2019	Water Color	Green
S0	05 Nov 2019	Current Direction	N
S0	05 Nov 2019	Water Temp (C)	15
S0	05 Nov 2019	Wave Height Low (ft)	3
S0	05 Nov 2019	High Tide (ft)	4.1
S0	05 Nov 2019	High Tide Time	1615
S0	05 Nov 2019	Low Tide (ft)	2.6
S0	05 Nov 2019	Low Tide Time	1104
S0	05 Nov 2019	Comments	Kelp; Algae; 3 Persons; Water clear; 0.5L/sec water flowing from storm drain
S0	12 Nov 2019	Arrive Time	1140
S0	12 Nov 2019	Weather	Partly Cloudy
S0	12 Nov 2019	Wind Speed (kts)	6.8
S0	12 Nov 2019	Wind Dir	NE
S0	12 Nov 2019	Animal Life	＞20 Birds; 4 Dogs
S0	12 Nov 2019	Floatables	None
S0	12 Nov 2019	Water Color	Green
S0	12 Nov 2019	Current Direction	N
S0	12 Nov 2019	Water Temp (C)	15
S0	12 Nov 2019	Wave Height Low (ft)	3
S0	12 Nov 2019	High Tide (ft)	5.9
S0	12 Nov 2019	High Tide Time	808
S0	12 Nov 2019	Low Tide (ft)	-0.2
S0	12 Nov 2019	Low Tide Time	1503
S0	12 Nov 2019	Comments	2 Surfers; Water clear; 0.5L/sec water flowing from storm drain
S0	19 Nov 2019	Arrive Time	1230
S0	19 Nov 2019	Weather	Cloudy
S0	19 Nov 2019	Wind Speed (kts)	6.2
S0	19 Nov 2019	Wind Dir	NE
S0	19 Nov 2019	Animal Life	5 Birds
S0	19 Nov 2019	Floatables	None
S0	19 Nov 2019	Water Color	Green
S0	19 Nov 2019	Current Direction	N
S0	19 Nov 2019	Water Temp (C)	18
S0	19 Nov 2019	Wave Height Low (ft)	5
S0	19 Nov 2019	High Tide (ft)	4.5
S0	19 Nov 2019	High Tide Time	1354
S0	19 Nov 2019	Low Tide (ft)	3
S0	19 Nov 2019	Low Tide Time	826
S0	19 Nov 2019	Comments	10 Persons; Water clear; 0.5L/sec water flowing from storm drain
S0	26 Nov 2019	Arrive Time	958
S0	26 Nov 2019	Weather	Sunny

Station	Date	Parameter	Value
S0	26 Nov 2019	Wind Speed (kts)	4.6
S0	26 Nov 2019	Wind Dir	NW
S0	26 Nov 2019	Animal Life	5 Shorebirds
S0	26 Nov 2019	Floatables	None
S0	26 Nov 2019	Water Color	Blue
S0	26 Nov 2019	Current Direction	N
S0	26 Nov 2019	Water Temp (C)	16
S0	26 Nov 2019	Wave Height Low (ft)	5
S0	26 Nov 2019	High Tide (ft)	6.6
S0	26 Nov 2019	High Tide Time	802
S0	26 Nov 2019	Low Tide (ft)	-1.1
S0	26 Nov 2019	Low Tide Time	1507
S0	26 Nov 2019	Comments	Kelp; Algae; 3 Persons; Water clear; 0.5L/sec water flowing from storm water
S2	05 Nov 2019	Arrive Time	1320
S2	05 Nov 2019	Weather	Sunny
S2	05 Nov 2019	Wind Speed (kts)	0.8
S2	05 Nov 2019	Wind Dir	NE
S2	05 Nov 2019	Animal Life	15 Seagulls
S2	05 Nov 2019	Floatables	None
S2	05 Nov 2019	Water Color	Green
S2	05 Nov 2019	Current Direction	N
S2	05 Nov 2019	Water Temp (C)	15
S2	05 Nov 2019	Wave Height Low (ft)	3
S2	05 Nov 2019	High Tide (ft)	4.1
S2	05 Nov 2019	High Tide Time	1615
S2	05 Nov 2019	Low Tide (ft)	2.6
S2	05 Nov 2019	Low Tide Time	1104
S2	05 Nov 2019	Comments	Kelp; Algae; 5 Persons; Water clear; No flow from storm drain
S2	12 Nov 2019	Arrive Time	1220
S2	12 Nov 2019	Weather	Partly Cloudy
S2	12 Nov 2019	Wind Speed (kts)	6
S2	12 Nov 2019	Wind Dir	NE
S2	12 Nov 2019	Animal Life	＞20 Birds
S2	12 Nov 2019	Floatables	None
S2	12 Nov 2019	Water Color	Green
S2	12 Nov 2019	Current Direction	N
S2	12 Nov 2019	Water Temp (C)	15
S2	12 Nov 2019	Wave Height Low (ft)	3
S2	12 Nov 2019	High Tide (ft)	5.9
S2	12 Nov 2019	High Tide Time	808
S2	12 Nov 2019	Low Tide (ft)	-0.2
S2	12 Nov 2019	Low Tide Time	1503
S2	12 Nov 2019	Comments	2 Fishermen; Water clear; No flow from storm drain
S2	19 Nov 2019	Arrive Time	1155
S2	19 Nov 2019	Weather	Cloudy
S2	19 Nov 2019	Wind Speed (kts)	6.2
S2	19 Nov 2019	Wind Dir	NE
S2	19 Nov 2019	Animal Life	5 Birds
S2	19 Nov 2019	Floatables	None
S2	19 Nov 2019	Water Color	Green
S2	19 Nov 2019	Current Direction	N

Station	Date	Parameter	Value
S2	19 Nov 2019	Water Temp (C)	18
S2	19 Nov 2019	Wave Height Low (ft)	5
S2	19 Nov 2019	High Tide (ft)	4.5
S2	19 Nov 2019	High Tide Time	1354
S2	19 Nov 2019	Low Tide (ft)	3
S2	19 Nov 2019	Low Tide Time	826
S2	19 Nov 2019	Comments	6 Persons; Water clear; No flow from storm drain
S2	26 Nov 2019	Arrive Time	1133
S2	26 Nov 2019	Weather	Sunny
S2	26 Nov 2019	Wind Speed (kts)	4.6
S2	26 Nov 2019	Wind Dir	NW
S2	26 Nov 2019	Animal Life	15 Shorebirds
S2	26 Nov 2019	Floatables	None
S2	26 Nov 2019	Water Color	Blue
S2	26 Nov 2019	Current Direction	N
S2	26 Nov 2019	Water Temp (C)	16
S2	26 Nov 2019	Wave Height Low (ft)	4
S2	26 Nov 2019	High Tide (ft)	6.6
S2	26 Nov 2019	High Tide Time	802
S2	26 Nov 2019	Low Tide (ft)	-1.1
S2	26 Nov 2019	Low Tide Time	1507
S2	26 Nov 2019	Comments	5 Persons; Water clear; No flow from storm drain
S3	05 Nov 2019	Arrive Time	1245
S3	05 Nov 2019	Weather	Sunny
S3	05 Nov 2019	Wind Speed (kts)	3
S3	05 Nov 2019	Wind Dir	NE
S3	05 Nov 2019	Animal Life	5 Seagulls
S3	05 Nov 2019	Floatables	None
S3	05 Nov 2019	Water Color	Green
S3	05 Nov 2019	Current Direction	N
S3	05 Nov 2019	Water Temp (C)	15
S3	05 Nov 2019	Wave Height Low (ft)	3
S3	05 Nov 2019	High Tide (ft)	4.1
S3	05 Nov 2019	High Tide Time	1615
S3	05 Nov 2019	Low Tide (ft)	2.6
S3	05 Nov 2019	Low Tide Time	1104
S3	05 Nov 2019	Comments	Kelp; Algae; 20 Persons; Water clear; 0.5L/sec water flowing from storm drain
S3	12 Nov 2019	Arrive Time	1250
S3	12 Nov 2019	Weather	Partly Cloudy
S3	12 Nov 2019	Wind Speed (kts)	6
S3	12 Nov 2019	Wind Dir	NE
S3	12 Nov 2019	Animal Life	＞20 Birds
S3	12 Nov 2019	Floatables	None
S3	12 Nov 2019	Water Color	Green
S3	12 Nov 2019	Current Direction	N
S3	12 Nov 2019	Water Temp (C)	15
S3	12 Nov 2019	Wave Height Low (ft)	3
S3	12 Nov 2019	High Tide (ft)	5.9
S3	12 Nov 2019	High Tide Time	808
S3	12 Nov 2019	Low Tide (ft)	-0.2
S3	12 Nov 2019	Low Tide Time	1503

Station	Date	Parameter	Value
S3	12 Nov 2019	Comments	10 Persons; Water clear; 0.5L/sec water flowing from storm drain
S3	19 Nov 2019	Arrive Time	1100
S3	19 Nov 2019	Weather	Cloudy
S3	19 Nov 2019	Wind Speed (kts)	2.3
S3	19 Nov 2019	Wind Dir	NE
S3	19 Nov 2019	Animal Life	10 Birds
S3	19 Nov 2019	Floatables	None
S3	19 Nov 2019	Water Color	Green
S3	19 Nov 2019	Current Direction	N
S3	19 Nov 2019	Water Temp (C)	18
S3	19 Nov 2019	Wave Height Low (ft)	3
S3	19 Nov 2019	High Tide (ft)	4.5
S3	19 Nov 2019	High Tide Time	1354
S3	19 Nov 2019	Low Tide (ft)	3
S3	19 Nov 2019	Low Tide Time	826
S3	19 Nov 2019	Comments	Kelp; Algae; Water clear; 0.5L/sec water flowing from storm drain
S3	26 Nov 2019	Arrive Time	1217
S3	26 Nov 2019	Weather	Sunny
S3	26 Nov 2019	Wind Speed (kts)	4.5
S3	26 Nov 2019	Wind Dir	NW
S3	26 Nov 2019	Animal Life	5 Shorebirds
S3	26 Nov 2019	Floatables	None
S3	26 Nov 2019	Water Color	Blue
S3	26 Nov 2019	Current Direction	N
S3	26 Nov 2019	Water Temp (C)	16
S3	26 Nov 2019	Wave Height Low (ft)	4
S3	26 Nov 2019	High Tide (ft)	6.6
S3	26 Nov 2019	High Tide Time	802
S3	26 Nov 2019	Low Tide (ft)	-1.1
S3	26 Nov 2019	Low Tide Time	1507
S3	26 Nov 2019	Comments	5 Persons; Water clear; 0.5L/sec water flowing from storm drain
S4	05 Nov 2019	Arrive Time	1015
S4	05 Nov 2019	Weather	Sunny
S4	05 Nov 2019	Wind Speed (kts)	7.3
S4	05 Nov 2019	Wind Dir	E
S4	05 Nov 2019	Animal Life	1 Cormorant; 2 Pelicans; 6 Seagulls
S4	05 Nov 2019	Floatables	Foam
S4	05 Nov 2019	Water Color	Green
S4	05 Nov 2019	Current Direction	S
S4	05 Nov 2019	Water Temp (C)	19.2
S4	05 Nov 2019	Wave Height Low (ft)	3
S4	05 Nov 2019	High Tide (ft)	4.2
S4	05 Nov 2019	High Tide Time	529
S4	05 Nov 2019	Low Tide (ft)	2.6
S4	05 Nov 2019	Low Tide Time	1104
S4	05 Nov 2019	Comments	Kelp; Seagrass; Water clear
S4	12 Nov 2019	Arrive Time	1135
S4	12 Nov 2019	Weather	Sunny
S4	12 Nov 2019	Wind Speed (kts)	6.8
S4	12 Nov 2019	Wind Dir	W
S4	12 Nov 2019	Animal Life	50 Godwits; 20 Terns

Station	Date	Parameter	Value
S4	12 Nov 2019	Floatables	None
S4	12 Nov 2019	Water Color	Green
S4	12 Nov 2019	Current Direction	S
S4	12 Nov 2019	Water Temp (C)	19.6
S4	12 Nov 2019	Wave Height Low (ft)	4
S4	12 Nov 2019	High Tide (ft)	5.9
S4	12 Nov 2019	High Tide Time	808
S4	12 Nov 2019	Low Tide (ft)	-0.2
S4	12 Nov 2019	Low Tide Time	1503
S4	12 Nov 2019	Comments	Kelp; Seagrass; Water clear
S4	19 Nov 2019	Arrive Time	944
S4	19 Nov 2019	Weather	Partly Cloudy
S4	19 Nov 2019	Wind Speed (kts)	6.4
S4	19 Nov 2019	Wind Dir	N
S4	19 Nov 2019	Animal Life	2 Cormorants; 1 Seagull
S4	19 Nov 2019	Floatables	Foam
S4	19 Nov 2019	Water Color	Green
S4	19 Nov 2019	Current Direction	N
S4	19 Nov 2019	Water Temp (C)	18.1
S4	19 Nov 2019	Wave Height Low (ft)	2
S4	19 Nov 2019	High Tide (ft)	4.5
S4	19 Nov 2019	High Tide Time	1354
S4	19 Nov 2019	Low Tide (ft)	3
S4	19 Nov 2019	Low Tide Time	826
S4	19 Nov 2019	Comments	Kelp; Seagrass; Debris; Water clear
S4	26 Nov 2019	Arrive Time	1140
S4	26 Nov 2019	Weather	Sunny
S4	26 Nov 2019	Wind Speed (kts)	7.1
S4	26 Nov 2019	Wind Dir	E
S4	26 Nov 2019	Animal Life	100 Cormorants
S4	26 Nov 2019	Floatables	None
S4	26 Nov 2019	Water Color	Green
S4	26 Nov 2019	Current Direction	S
S4	26 Nov 2019	Water Temp (C)	18.3
S4	26 Nov 2019	Wave Height Low (ft)	5
S4	26 Nov 2019	High Tide (ft)	6.6
S4	26 Nov 2019	High Tide Time	802
S4	26 Nov 2019	Low Tide (ft)	-1.1
S4	26 Nov 2019	Low Tide Time	1507
S4	26 Nov 2019	Comments	Seagrass; 4 Persons; Water clear
S4	27 Nov 2019	Arrive Time	828
S4	27 Nov 2019	Weather	Partly Cloudy
S4	27 Nov 2019	Wind Speed (kts)	11.2
S4	27 Nov 2019	Wind Dir	SW
S4	27 Nov 2019	Animal Life	None
S4	27 Nov 2019	Floatables	Foam
S4	27 Nov 2019	Water Color	Green
S4	27 Nov 2019	Current Direction	N
S4	27 Nov 2019	Water Temp (C)	17.4
S4	27 Nov 2019	Wave Height Low (ft)	5
S4	27 Nov 2019	High Tide (ft)	6.5
S4	27 Nov 2019	High Tide Time	839

Station	Date	Parameter	Value
S4	27 Nov 2019	Low Tide (ft)	1.5
S4	27 Nov 2019	Low Tide Time	230
S4	27 Nov 2019	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S4	29 Nov 2019	Arrive Time	952
S4	29 Nov 2019	Weather	Partly Cloudy
S4	29 Nov 2019	Wind Speed (kts)	6
S4	29 Nov 2019	Wind Dir	W
S4	29 Nov 2019	Animal Life	1 Godwit; 4 Seagulls
S4	29 Nov 2019	Floatables	Foam; Film
S4	29 Nov 2019	Water Color	Brown
S4	29 Nov 2019	Current Direction	N
S4	29 Nov 2019	Water Temp (C)	16.3
S4	29 Nov 2019	Wave Height Low (ft)	5
S4	29 Nov 2019	High Tide (ft)	5.8
S4	29 Nov 2019	High Tide Time	953
S4	29 Nov 2019	Low Tide (ft)	2.3
S4	29 Nov 2019	Low Tide Time	346
S4	29 Nov 2019	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water turbid
S5	05 Nov 2019	Arrive Time	834
S5	05 Nov 2019	Weather	Sunny
S5	05 Nov 2019	Wind Speed (kts)	0.1
S5	05 Nov 2019	Wind Dir	W
S5	05 Nov 2019	Animal Life	10 Cormorants; 30 Godwits; 1 Pelican; 10 Seagulls
S5	05 Nov 2019	Floatables	None
S5	05 Nov 2019	Water Color	Colorless
S5	05 Nov 2019	Current Direction	N
S5	05 Nov 2019	Water Temp (C)	17.9
S5	05 Nov 2019	Wave Height Low (ft)	2
S5	05 Nov 2019	High Tide (ft)	4.2
S5	05 Nov 2019	High Tide Time	529
S5	05 Nov 2019	Low Tide (ft)	2.6
S5	05 Nov 2019	Low Tide Time	1104
S5	05 Nov 2019	Comments	Kelp; Seagrass; Water clear
S5	12 Nov 2019	Arrive Time	1019
S5	12 Nov 2019	Weather	Hazy
S5	12 Nov 2019	Wind Speed (kts)	7.1
S5	12 Nov 2019	Wind Dir	N
S5	12 Nov 2019	Animal Life	5 Seagulls
S5	12 Nov 2019	Floatables	None
S5	12 Nov 2019	Water Color	Green
S5	12 Nov 2019	Current Direction	N
S5	12 Nov 2019	Water Temp (C)	20.2
S5	12 Nov 2019	Wave Height Low (ft)	4
S5	12 Nov 2019	High Tide (ft)	5.9
S5	12 Nov 2019	High Tide Time	808
S5	12 Nov 2019	Low Tide (ft)	-0.2
S5	12 Nov 2019	Low Tide Time	1503
S5	12 Nov 2019	Comments	Kelp; Seagrass; Water clear
S5	19 Nov 2019	Arrive Time	759
S5	19 Nov 2019	Weather	Partly Cloudy
S5	19 Nov 2019	Wind Speed (kts)	0

Station	Date	Parameter	Value
S5	19 Nov 2019	Wind Dir	
S5	19 Nov 2019	Animal Life	30 Cormorants; 1 Dog; 2 Grebes
S5	19 Nov 2019	Floatables	Foam; Film
S5	19 Nov 2019	Water Color	Green
S5	19 Nov 2019	Current Direction	
S5	19 Nov 2019	Water Temp (C)	18
S5	19 Nov 2019	Wave Height Low (ft)	2
S5	19 Nov 2019	High Tide (ft)	3.8
S5	19 Nov 2019	High Tide Time	339
S5	19 Nov 2019	Low Tide (ft)	3
S5	19 Nov 2019	Low Tide Time	826
S5	19 Nov 2019	Comments	Kelp; Seagrass; Debris; Sewage-like odor; 1 Person; Water clear
S5	26 Nov 2019	Arrive Time	940
S5	26 Nov 2019	Weather	Sunny
S5	26 Nov 2019	Wind Speed (kts)	3.8
S5	26 Nov 2019	Wind Dir	E
S5	26 Nov 2019	Animal Life	4 Seagulls
S5	26 Nov 2019	Floatables	Foam
S5	26 Nov 2019	Water Color	Green
S5	26 Nov 2019	Current Direction	S
S5	26 Nov 2019	Water Temp (C)	21.8
S5	26 Nov 2019	Wave Height Low (ft)	5
S5	26 Nov 2019	High Tide (ft)	6.6
S5	26 Nov 2019	High Tide Time	802
S5	26 Nov 2019	Low Tide (ft)	-1.1
S5	26 Nov 2019	Low Tide Time	1507
S5	26 Nov 2019	Comments	Kelp; Seagrass; Algae; Water turbid
S5	27 Nov 2019	Arrive Time	1005
S5	27 Nov 2019	Weather	Sunny
S5	27 Nov 2019	Wind Speed (kts)	11
S5	27 Nov 2019	Wind Dir	SW
S5	27 Nov 2019	Animal Life	None
S5	27 Nov 2019	Floatables	Foam
S5	27 Nov 2019	Water Color	Green
S5	27 Nov 2019	Current Direction	N
S5	27 Nov 2019	Water Temp (C)	17.8
S5	27 Nov 2019	Wave Height Low (ft)	3
S5	27 Nov 2019	High Tide (ft)	6.5
S5	27 Nov 2019	High Tide Time	839
S5	27 Nov 2019	Low Tide (ft)	-1.1
S5	27 Nov 2019	Low Tide Time	1550
S5	27 Nov 2019	Comments	Resample; Water clear
S5	29 Nov 2019	Arrive Time	856
S5	29 Nov 2019	Weather	Drizzle
S5	29 Nov 2019	Wind Speed (kts)	10.7
S5	29 Nov 2019	Wind Dir	W
S5	29 Nov 2019	Animal Life	None
S5	29 Nov 2019	Floatables	Foam
S5	29 Nov 2019	Water Color	Brown
S5	29 Nov 2019	Current Direction	N
S5	29 Nov 2019	Water Temp (C)	14.8
S5	29 Nov 2019	Wave Height Low (ft)	5

Station	Date	Parameter	Value
S5	29 Nov 2019	High Tide (ft)	5.8
S5	29 Nov 2019	High Tide Time	953
S5	29 Nov 2019	Low Tide (ft)	2.3
S5	29 Nov 2019	Low Tide Time	346
S5	29 Nov 2019	Comments	Resample; Kelp; Seagrass; Debris; 2 Persons; Water turbid
S6	05 Nov 2019	Arrive Time	853
S6	05 Nov 2019	Weather	Sunny
S6	05 Nov 2019	Wind Speed (kts)	1.3
S6	05 Nov 2019	Wind Dir	N
S6	05 Nov 2019	Animal Life	14 Cormorants; 3 Seagulls; 1 Tern
S6	05 Nov 2019	Floatables	Foam
S6	05 Nov 2019	Water Color	Colorless
S6	05 Nov 2019	Current Direction	N
S6	05 Nov 2019	Water Temp (C)	18
S6	05 Nov 2019	Wave Height Low (ft)	2
S6	05 Nov 2019	High Tide (ft)	4.2
S6	05 Nov 2019	High Tide Time	529
S6	05 Nov 2019	Low Tide (ft)	2.6
S6	05 Nov 2019	Low Tide Time	1104
S6	05 Nov 2019	Comments	Kelp; Seagrass; 1 Jogger; Water clear
S6	12 Nov 2019	Arrive Time	905
S6	12 Nov 2019	Weather	Overcast
S6	12 Nov 2019	Wind Speed (kts)	1.3
S6	12 Nov 2019	Wind Dir	NW
S6	12 Nov 2019	Animal Life	1 Godwit
S6	12 Nov 2019	Floatables	None
S6	12 Nov 2019	Water Color	Green
S6	12 Nov 2019	Current Direction	S
S6	12 Nov 2019	Water Temp (C)	18.5
S6	12 Nov 2019	Wave Height Low (ft)	3
S6	12 Nov 2019	High Tide (ft)	5.9
S6	12 Nov 2019	High Tide Time	808
S6	12 Nov 2019	Low Tide (ft)	-0.2
S6	12 Nov 2019	Low Tide Time	1503
S6	12 Nov 2019	Comments	Kelp; 2 Persons; Water clear
S6	19 Nov 2019	Arrive Time	816
S6	19 Nov 2019	Weather	Partly Cloudy
S6	19 Nov 2019	Wind Speed (kts)	3.8
S6	19 Nov 2019	Wind Dir	S
S6	19 Nov 2019	Animal Life	None
S6	19 Nov 2019	Floatables	Foam; Film
S6	19 Nov 2019	Water Color	Green
S6	19 Nov 2019	Current Direction	N
S6	19 Nov 2019	Water Temp (C)	17.7
S6	19 Nov 2019	Wave Height Low (ft)	3
S6	19 Nov 2019	High Tide (ft)	3.8
S6	19 Nov 2019	High Tide Time	339
S6	19 Nov 2019	Low Tide (ft)	3
S6	19 Nov 2019	Low Tide Time	826
S6	19 Nov 2019	Comments	Kelp; Seagrass; Debris; 2 Persons; 5 Surfers; Water clear
S6	26 Nov 2019	Arrive Time	903

Station	Date	Parameter	Value
S6	26 Nov 2019	Weather	Sunny
S6	26 Nov 2019	Wind Speed (kts)	2.3
S6	26 Nov 2019	Wind Dir	SE
S6	26 Nov 2019	Animal Life	3 Seagulls
S6	26 Nov 2019	Floatables	Foam; Dead Animals
S6	26 Nov 2019	Water Color	Green
S6	26 Nov 2019	Current Direction	S
S6	26 Nov 2019	Water Temp (C)	18.4
S6	26 Nov 2019	Wave Height Low (ft)	5
S6	26 Nov 2019	High Tide (ft)	6.6
S6	26 Nov 2019	High Tide Time	802
S6	26 Nov 2019	Low Tide (ft)	-1.1
S6	26 Nov 2019	Low Tide Time	1507
S6	26 Nov 2019	Comments	Kelp; Seagrass; Algae; 3 Persons; Water clear
S6	27 Nov 2019	Arrive Time	1020
S6	27 Nov 2019	Weather	Sunny
S6	27 Nov 2019	Wind Speed (kts)	11.2
S6	27 Nov 2019	Wind Dir	SW
S6	27 Nov 2019	Animal Life	30 Cormorants
S6	27 Nov 2019	Floatables	Foam
S6	27 Nov 2019	Water Color	Green
S6	27 Nov 2019	Current Direction	N
S6	27 Nov 2019	Water Temp (C)	17.8
S6	27 Nov 2019	Wave Height Low (ft)	3
S6	27 Nov 2019	High Tide (ft)	6.5
S6	27 Nov 2019	High Tide Time	839
S6	27 Nov 2019	Low Tide (ft)	-1.1
S6	27 Nov 2019	Low Tide Time	1550
S6	27 Nov 2019	Comments	Resample; Kelp; Seagrass; 2 Persons; Water clear
S6	29 Nov 2019	Arrive Time	837
S6	29 Nov 2019	Weather	Partly Cloudy
S6	29 Nov 2019	Wind Speed (kts)	19.8
S6	29 Nov 2019	Wind Dir	W
S6	29 Nov 2019	Animal Life	40 Cormorants; 1 Seagull
S6	29 Nov 2019	Floatables	Foam
S6	29 Nov 2019	Water Color	Brown
S6	29 Nov 2019	Current Direction	N
S6	29 Nov 2019	Water Temp (C)	14.9
S6	29 Nov 2019	Wave Height Low (ft)	5
S6	29 Nov 2019	High Tide (ft)	5.8
S6	29 Nov 2019	High Tide Time	953
S6	29 Nov 2019	Low Tide (ft)	2.3
S6	29 Nov 2019	Low Tide Time	346
S6	29 Nov 2019	Comments	Resample; Kelp; Seagrass; 2 Joggers; Water turbid
S8	05 Nov 2019	Arrive Time	751
S8	05 Nov 2019	Weather	Sunny
S8	05 Nov 2019	Wind Speed (kts)	1.9
S8	05 Nov 2019	Wind Dir	W
S8	05 Nov 2019	Animal Life	16 Grebes; 3 Pelicans; 4 Seagulls
S8	05 Nov 2019	Floatables	Foam
S8	05 Nov 2019	Water Color	Green
S8	05 Nov 2019	Current Direction	N

Station	Date	Parameter	Value
S8	05 Nov 2019	Water Temp (C)	16.9
S8	05 Nov 2019	Wave Height Low (ft)	3
S8	05 Nov 2019	High Tide (ft)	4.2
S8	05 Nov 2019	High Tide Time	529
S8	05 Nov 2019	Low Tide (ft)	2.6
S8	05 Nov 2019	Low Tide Time	1104
S8	05 Nov 2019	Comments	Kelp; 1 Surfer; 1 Swimmer; Water clear
S8	12 Nov 2019	Arrive Time	801
S8	12 Nov 2019	Weather	Foggy
S8	12 Nov 2019	Wind Speed (kts)	1.5
S8	12 Nov 2019	Wind Dir	E
S8	12 Nov 2019	Animal Life	3 Godwits; 5 Grebes; 1 Pelican; 2 Seagulls
S8	12 Nov 2019	Floatables	Foam
S8	12 Nov 2019	Water Color	Green
S8	12 Nov 2019	Current Direction	N
S8	12 Nov 2019	Water Temp (C)	18.6
S8	12 Nov 2019	Wave Height Low (ft)	3
S8	12 Nov 2019	High Tide (ft)	5.9
S8	12 Nov 2019	High Tide Time	808
S8	12 Nov 2019	Low Tide (ft)	1.3
S8	12 Nov 2019	Low Tide Time	202
S8	12 Nov 2019	Comments	Kelp; Seagrass; Algae; Water clear
S8	19 Nov 2019	Arrive Time	720
S8	19 Nov 2019	Weather	Partly Cloudy
S8	19 Nov 2019	Wind Speed (kts)	6.4
S8	19 Nov 2019	Wind Dir	N
S8	19 Nov 2019	Animal Life	20 Flies; 8 Godwits; 10 Grebes; 7 Seagulls
S8	19 Nov 2019	Floatables	None
S8	19 Nov 2019	Water Color	Green
S8	19 Nov 2019	Current Direction	N
S8	19 Nov 2019	Water Temp (C)	18.7
S8	19 Nov 2019	Wave Height Low (ft)	2
S8	19 Nov 2019	High Tide (ft)	3.8
S8	19 Nov 2019	High Tide Time	339
S8	19 Nov 2019	Low Tide (ft)	3
S8	19 Nov 2019	Low Tide Time	826
S8	19 Nov 2019	Comments	Kelp; 2 Persons; Water clear
S8	26 Nov 2019	Arrive Time	805
S8	26 Nov 2019	Weather	Sunny
S8	26 Nov 2019	Wind Speed (kts)	3.8
S8	26 Nov 2019	Wind Dir	E
S8	26 Nov 2019	Animal Life	2 Godwits; 5 Seagulls
S8	26 Nov 2019	Floatables	Foam; Film
S8	26 Nov 2019	Water Color	Green
S8	26 Nov 2019	Current Direction	S
S8	26 Nov 2019	Water Temp (C)	16.8
S8	26 Nov 2019	Wave Height Low (ft)	4
S8	26 Nov 2019	High Tide (ft)	6.6
S8	26 Nov 2019	High Tide Time	802
S8	26 Nov 2019	Low Tide (ft)	1.2
S8	26 Nov 2019	Low Tide Time	152
S8	26 Nov 2019	Comments	Kelp; Seagrass; Algae; Sewage-like odor; 3 Persons; Water clear

Station	Date	Parameter	Value
S9	05 Nov 2019	Arrive Time	733
S9	05 Nov 2019	Weather	Sunny
S9	05 Nov 2019	Wind Speed (kts)	1.5
S9	05 Nov 2019	Wind Dir	W
S9	05 Nov 2019	Animal Life	14 Cormorants; 1 Seagull
S9	05 Nov 2019	Floatables	Foam
S9	05 Nov 2019	Water Color	Green
S9	05 Nov 2019	Current Direction	N
S9	05 Nov 2019	Water Temp (C)	17
S9	05 Nov 2019	Wave Height Low (ft)	1
S9	05 Nov 2019	High Tide (ft)	4.2
S9	05 Nov 2019	High Tide Time	529
S9	05 Nov 2019	Low Tide (ft)	2.6
S9	05 Nov 2019	Low Tide Time	1104
S9	05 Nov 2019	Comments	Kelp; Seagrass; 3 Joggers; 2 Persons; Water clear
S9	12 Nov 2019	Arrive Time	733
S9	12 Nov 2019	Weather	Foggy
S9	12 Nov 2019	Wind Speed (kts)	2.7
S9	12 Nov 2019	Wind Dir	NE
S9	12 Nov 2019	Animal Life	2 Seagulls
S9	12 Nov 2019	Floatables	Foam
S9	12 Nov 2019	Water Color	Green
S9	12 Nov 2019	Current Direction	N
S9	12 Nov 2019	Water Temp (C)	18.3
S9	12 Nov 2019	Wave Height Low (ft)	3
S9	12 Nov 2019	High Tide (ft)	5.9
S9	12 Nov 2019	High Tide Time	808
S9	12 Nov 2019	Low Tide (ft)	1.3
S9	12 Nov 2019	Low Tide Time	202
S9	12 Nov 2019	Comments	Kelp; Seagrass; Algae; 1 Person; Water clear
S9	19 Nov 2019	Arrive Time	703
S9	19 Nov 2019	Weather	Overcast
S9	19 Nov 2019	Wind Speed (kts)	6
S9	19 Nov 2019	Wind Dir	N
S9	19 Nov 2019	Animal Life	6 Cormorants; 1 Pelican
S9	19 Nov 2019	Floatables	None
S9	19 Nov 2019	Water Color	Green
S9	19 Nov 2019	Current Direction	N
S9	19 Nov 2019	Water Temp (C)	17.4
S9	19 Nov 2019	Wave Height Low (ft)	2
S9	19 Nov 2019	High Tide (ft)	3.8
S9	19 Nov 2019	High Tide Time	339
S9	19 Nov 2019	Low Tide (ft)	3
S9	19 Nov 2019	Low Tide Time	826
S9	19 Nov 2019	Comments	Kelp; 2 Joggers; 5 Persons; Water clear
S9	26 Nov 2019	Arrive Time	738
S9	26 Nov 2019	Weather	Sunny
S9	26 Nov 2019	Wind Speed (kts)	0.7
S9	26 Nov 2019	Wind Dir	S
S9	26 Nov 2019	Animal Life	10 Cormorants; 4 Godwits; 13 Seagulls
S9	26 Nov 2019	Floatables	Foam; Film

Station	Date	Parameter	Value
S9	26 Nov 2019	Water Color	Green
S9	26 Nov 2019	Current Direction	S
S9	26 Nov 2019	Water Temp (C)	17.5
S9	26 Nov 2019	Wave Height Low (ft)	5
S9	26 Nov 2019	High Tide (ft)	6.6
S9	26 Nov 2019	High Tide Time	802
S9	26 Nov 2019	Low Tide (ft)	1.2
S9	26 Nov 2019	Low Tide Time	152
S9	26 Nov 2019	Comments	Kelp; Seagrass; Algae; 1 Person; 1 Tractor; Water clear; Loader moving sand at sample site
S10	05 Nov 2019	Arrive Time	1005
S10	05 Nov 2019	Weather	Sunny
S10	05 Nov 2019	Wind Speed (kts)	6.8
S10	05 Nov 2019	Wind Dir	E
S10	05 Nov 2019	Animal Life	20 Grebes; 3 Horses
S10	05 Nov 2019	Floatables	None
S10	05 Nov 2019	Water Color	Green
S10	05 Nov 2019	Current Direction	S
S10	05 Nov 2019	Water Temp (C)	19.4
S10	05 Nov 2019	Wave Height Low (ft)	1
S10	05 Nov 2019	High Tide (ft)	4.2
S10	05 Nov 2019	High Tide Time	529
S10	05 Nov 2019	Low Tide (ft)	2.6
S10	05 Nov 2019	Low Tide Time	1104
S10	05 Nov 2019	Comments	Kelp; 3 Persons; Water clear
S10	12 Nov 2019	Arrive Time	1115
S10	12 Nov 2019	Weather	Hazy
S10	12 Nov 2019	Wind Speed (kts)	6.6
S10	12 Nov 2019	Wind Dir	W
S10	12 Nov 2019	Animal Life	None
S10	12 Nov 2019	Floatables	None
S10	12 Nov 2019	Water Color	Green
S10	12 Nov 2019	Current Direction	N
S10	12 Nov 2019	Water Temp (C)	20
S10	12 Nov 2019	Wave Height Low (ft)	3
S10	12 Nov 2019	High Tide (ft)	5.9
S10	12 Nov 2019	High Tide Time	808
S10	12 Nov 2019	Low Tide (ft)	-0.2
S10	12 Nov 2019	Low Tide Time	1503
S10	12 Nov 2019	Comments	1 Person; Water clear
S10	19 Nov 2019	Arrive Time	922
S10	19 Nov 2019	Weather	Partly Cloudy
S10	19 Nov 2019	Wind Speed (kts)	5.8
S10	19 Nov 2019	Wind Dir	E
S10	19 Nov 2019	Animal Life	2 Cormorants
S10	19 Nov 2019	Floatables	None
S10	19 Nov 2019	Water Color	Green
S10	19 Nov 2019	Current Direction	S
S10	19 Nov 2019	Water Temp (C)	18.4
S10	19 Nov 2019	Wave Height Low (ft)	2
S10	19 Nov 2019	High Tide (ft)	4.5
S10	19 Nov 2019	High Tide Time	1354

Station	Date	Parameter	Value
S10	19 Nov 2019	Low Tide (ft)	3
S10	19 Nov 2019	Low Tide Time	826
S10	19 Nov 2019	Comments	Kelp; Seagrass; Debris; Water clear
S10	26 Nov 2019	Arrive Time	1111
S10	26 Nov 2019	Weather	Sunny
S10	26 Nov 2019	Wind Speed (kts)	6.9
S10	26 Nov 2019	Wind Dir	W
S10	26 Nov 2019	Animal Life	50 Cormorants; 2 Horses
S10	26 Nov 2019	Floatables	Foam
S10	26 Nov 2019	Water Color	Green
S10	26 Nov 2019	Current Direction	S
S10	26 Nov 2019	Water Temp (C)	17.9
S10	26 Nov 2019	Wave Height Low (ft)	4
S10	26 Nov 2019	High Tide (ft)	6.6
S10	26 Nov 2019	High Tide Time	802
S10	26 Nov 2019	Low Tide (ft)	-1.1
S10	26 Nov 2019	Low Tide Time	1507
S10	26 Nov 2019	Comments	Kelp; Seagrass; 7 Persons; Water clear
S10	27 Nov 2019	Arrive Time	819
S10	27 Nov 2019	Weather	Partly Cloudy
S10	27 Nov 2019	Wind Speed (kts)	11
S10	27 Nov 2019	Wind Dir	SW
S10	27 Nov 2019	Animal Life	50 Cormorants
S10	27 Nov 2019	Floatables	None
S10	27 Nov 2019	Water Color	Green
S10	27 Nov 2019	Current Direction	N
S10	27 Nov 2019	Water Temp (C)	17.6
S10	27 Nov 2019	Wave Height Low (ft)	4
S10	27 Nov 2019	High Tide (ft)	6.5
S10	27 Nov 2019	High Tide Time	839
S10	27 Nov 2019	Low Tide (ft)	1.5
S10	27 Nov 2019	Low Tide Time	230
S10	27 Nov 2019	Comments	Resample; Kelp; Seagrass; Debris; Water clear
S10	29 Nov 2019	Arrive Time	1010
S10	29 Nov 2019	Weather	Partly Cloudy
S10	29 Nov 2019	Wind Speed (kts)	13
S10	29 Nov 2019	Wind Dir	W
S10	29 Nov 2019	Animal Life	None
S10	29 Nov 2019	Floatables	Foam
S10	29 Nov 2019	Water Color	Brown
S10	29 Nov 2019	Current Direction	N
S10	29 Nov 2019	Water Temp (C)	15.8
S10	29 Nov 2019	Wave Height Low (ft)	5
S10	29 Nov 2019	High Tide (ft)	5.8
S10	29 Nov 2019	High Tide Time	953
S10	29 Nov 2019	Low Tide (ft)	2.3
S10	29 Nov 2019	Low Tide Time	346
S10	29 Nov 2019	Comments	Resample; Kelp; Seagrass; Debris; Sewage-like odor; Water turbid
S11	05 Nov 2019	Arrive Time	847
S11	05 Nov 2019	Weather	Sunny
S11	05 Nov 2019	Wind Speed (kts)	1.7

Station	Date	Parameter	Value
S11	05 Nov 2019	Wind Dir	E
S11	05 Nov 2019	Animal Life	5 Cormorants; 2 Seagulls; 1 Sea lion
S11	05 Nov 2019	Floatables	None
S11	05 Nov 2019	Water Color	Colorless
S11	05 Nov 2019	Current Direction	N
S11	05 Nov 2019	Water Temp (C)	18.1
S11	05 Nov 2019	Wave Height Low (ft)	1
S11	05 Nov 2019	High Tide (ft)	4.2
S11	05 Nov 2019	High Tide Time	529
S11	05 Nov 2019	Low Tide (ft)	2.6
S11	05 Nov 2019	Low Tide Time	1104
S11	05 Nov 2019	Comments	Kelp; Seagrass; 5 Swimmers; Water clear
S11	12 Nov 2019	Arrive Time	1000
S11	12 Nov 2019	Weather	Foggy
S11	12 Nov 2019	Wind Speed (kts)	3.8
S11	12 Nov 2019	Wind Dir	N
S11	12 Nov 2019	Animal Life	2 Godwits
S11	12 Nov 2019	Floatables	Foam; Dead Animals
S11	12 Nov 2019	Water Color	Green
S11	12 Nov 2019	Current Direction	S
S11	12 Nov 2019	Water Temp (C)	20.1
S11	12 Nov 2019	Wave Height Low (ft)	4
S11	12 Nov 2019	High Tide (ft)	5.9
S11	12 Nov 2019	High Tide Time	808
S11	12 Nov 2019	Low Tide (ft)	-0.2
S11	12 Nov 2019	Low Tide Time	1503
S11	12 Nov 2019	Comments	Kelp; Seagrass; 1 Swimmer; Water clear
S11	19 Nov 2019	Arrive Time	810
S11	19 Nov 2019	Weather	Overcast
S11	19 Nov 2019	Wind Speed (kts)	3.6
S11	19 Nov 2019	Wind Dir	W
S11	19 Nov 2019	Animal Life	1 Cormorant
S11	19 Nov 2019	Floatables	Foam; Film
S11	19 Nov 2019	Water Color	Green
S11	19 Nov 2019	Current Direction	N
S11	19 Nov 2019	Water Temp (C)	18
S11	19 Nov 2019	Wave Height Low (ft)	2
S11	19 Nov 2019	High Tide (ft)	3.8
S11	19 Nov 2019	High Tide Time	339
S11	19 Nov 2019	Low Tide (ft)	3
S11	19 Nov 2019	Low Tide Time	826
S11	19 Nov 2019	Comments	Kelp; Seagrass; Sewage-like odor; Water clear
S11	26 Nov 2019	Arrive Time	1003
S11	26 Nov 2019	Weather	Sunny
S11	26 Nov 2019	Wind Speed (kts)	2.9
S11	26 Nov 2019	Wind Dir	E
S11	26 Nov 2019	Animal Life	2 Seagulls
S11	26 Nov 2019	Floatables	Foam; Dead Animals
S11	26 Nov 2019	Water Color	Green
S11	26 Nov 2019	Current Direction	S
S11	26 Nov 2019	Water Temp (C)	21.5
S11	26 Nov 2019	Wave Height Low (ft)	4

Station	Date	Parameter	Value
S11	26 Nov 2019	High Tide (ft)	6.6
S11	26 Nov 2019	High Tide Time	802
S11	26 Nov 2019	Low Tide (ft)	-1.1
S11	26 Nov 2019	Low Tide Time	1507
S11	26 Nov 2019	Comments	Kelp; Seagrass; Water clear
S11	27 Nov 2019	Arrive Time	1013
S11	27 Nov 2019	Weather	Sunny
S11	27 Nov 2019	Wind Speed (kts)	12
S11	27 Nov 2019	Wind Dir	SW
S11	27 Nov 2019	Animal Life	None
S11	27 Nov 2019	Floatables	Dead Animals
S11	27 Nov 2019	Water Color	Green
S11	27 Nov 2019	Current Direction	SW
S11	27 Nov 2019	Water Temp (C)	17.2
S11	27 Nov 2019	Wave Height Low (ft)	4
S11	27 Nov 2019	High Tide (ft)	6.5
S11	27 Nov 2019	High Tide Time	839
S11	27 Nov 2019	Low Tide (ft)	-1.1
S11	27 Nov 2019	Low Tide Time	1550
S11	27 Nov 2019	Comments	Resample; 2 Persons; Water clear
S11	29 Nov 2019	Arrive Time	845
S11	29 Nov 2019	Weather	Drizzle
S11	29 Nov 2019	Wind Speed (kts)	17.4
S11	29 Nov 2019	Wind Dir	W
S11	29 Nov 2019	Animal Life	2 Dogs; 1 Seagull
S11	29 Nov 2019	Floatables	Foam
S11	29 Nov 2019	Water Color	Brown
S11	29 Nov 2019	Current Direction	N
S11	29 Nov 2019	Water Temp (C)	14.9
S11	29 Nov 2019	Wave Height Low (ft)	4
S11	29 Nov 2019	High Tide (ft)	5.8
S11	29 Nov 2019	High Tide Time	953
S11	29 Nov 2019	Low Tide (ft)	2.3
S11	29 Nov 2019	Low Tide Time	346
S11	29 Nov 2019	Comments	Resample; Kelp; Seagrass; 1 Person; Water turbid
S12	05 Nov 2019	Arrive Time	812
S12	05 Nov 2019	Weather	Sunny
S12	05 Nov 2019	Wind Speed (kts)	1.3
S12	05 Nov 2019	Wind Dir	W
S12	05 Nov 2019	Animal Life	1 Godwit; 3 Seagulls; 1 Tern
S12	05 Nov 2019	Floatables	None
S12	05 Nov 2019	Water Color	Green
S12	05 Nov 2019	Current Direction	N
S12	05 Nov 2019	Water Temp (C)	17.8
S12	05 Nov 2019	Wave Height Low (ft)	3
S12	05 Nov 2019	High Tide (ft)	4.2
S12	05 Nov 2019	High Tide Time	529
S12	05 Nov 2019	Low Tide (ft)	2.6
S12	05 Nov 2019	Low Tide Time	1104
S12	05 Nov 2019	Comments	Kelp; Seagrass; 1 Person; 1 Swimmer; Water clear
S12	12 Nov 2019	Arrive Time	835

Station	Date	Parameter	Value
S12	12 Nov 2019	Weather	Cloudy
S12	12 Nov 2019	Wind Speed (kts)	1.3
S12	12 Nov 2019	Wind Dir	N
S12	12 Nov 2019	Animal Life	None
S12	12 Nov 2019	Floatables	None
S12	12 Nov 2019	Water Color	Green
S12	12 Nov 2019	Current Direction	N
S12	12 Nov 2019	Water Temp (C)	18.6
S12	12 Nov 2019	Wave Height Low (ft)	3
S12	12 Nov 2019	High Tide (ft)	5.9
S12	12 Nov 2019	High Tide Time	808
S12	12 Nov 2019	Low Tide (ft)	-0.2
S12	12 Nov 2019	Low Tide Time	1503
S12	12 Nov 2019	Comments	Kelp; Seagrass; Debris; 1 Fisherman; Water clear
S12	19 Nov 2019	Arrive Time	742
S12	19 Nov 2019	Weather	Partly Cloudy
S12	19 Nov 2019	Wind Speed (kts)	5
S12	19 Nov 2019	Wind Dir	N
S12	19 Nov 2019	Animal Life	1 Godwit; 1 Seagull
S12	19 Nov 2019	Floatables	Foam
S12	19 Nov 2019	Water Color	Green
S12	19 Nov 2019	Current Direction	N
S12	19 Nov 2019	Water Temp (C)	19.1
S12	19 Nov 2019	Wave Height Low (ft)	3
S12	19 Nov 2019	High Tide (ft)	3.8
S12	19 Nov 2019	High Tide Time	339
S12	19 Nov 2019	Low Tide (ft)	3
S12	19 Nov 2019	Low Tide Time	826
S12	19 Nov 2019	Comments	Kelp; Seagrass; Water clear
S12	26 Nov 2019	Arrive Time	834
S12	26 Nov 2019	Weather	Sunny
S12	26 Nov 2019	Wind Speed (kts)	2.3
S12	26 Nov 2019	Wind Dir	N
S12	26 Nov 2019	Animal Life	2 Seagulls
S12	26 Nov 2019	Floatables	Foam; Dead Animals; Film
S12	26 Nov 2019	Water Color	Green
S12	26 Nov 2019	Current Direction	S
S12	26 Nov 2019	Water Temp (C)	18.5
S12	26 Nov 2019	Wave Height Low (ft)	5
S12	26 Nov 2019	High Tide (ft)	6.6
S12	26 Nov 2019	High Tide Time	802
S12	26 Nov 2019	Low Tide (ft)	1.2
S12	26 Nov 2019	Low Tide Time	152
S12	26 Nov 2019	Comments	Kelp; Seagrass; Algae; Sewage-like odor; 1 Person; 2 Fishermen; Water clear
S12	27 Nov 2019	Arrive Time	944
S12	27 Nov 2019	Weather	Sunny
S12	27 Nov 2019	Wind Speed (kts)	11
S12	27 Nov 2019	Wind Dir	S
S12	27 Nov 2019	Animal Life	1 Dog
S12	27 Nov 2019	Floatables	Foam
S12	27 Nov 2019	Water Color	Green

Station	Date	Parameter	Value
S12	27 Nov 2019	Current Direction	N
S12	27 Nov 2019	Water Temp (C)	18.4
S12	27 Nov 2019	Wave Height Low (ft)	4
S12	27 Nov 2019	High Tide (ft)	6.5
S12	27 Nov 2019	High Tide Time	839
S12	27 Nov 2019	Low Tide (ft)	-1.1
S12	27 Nov 2019	Low Tide Time	1550
S12	27 Nov 2019	Comments	Resample; Kelp; Seagrass; 2 Persons; Water clear
S12	28 Nov 2019	Arrive Time	929
S12	28 Nov 2019	Weather	Overcast
S12	28 Nov 2019	Wind Speed (kts)	8.9
S12	28 Nov 2019	Wind Dir	E
S12	28 Nov 2019	Animal Life	5 Cormorants; 2 Dogs; 1 Seagull
S12	28 Nov 2019	Floatables	Foam; Film
S12	28 Nov 2019	Water Color	Green
S12	28 Nov 2019	Current Direction	N
S12	28 Nov 2019	Water Temp (C)	17.1
S12	28 Nov 2019	Wave Height Low (ft)	6
S12	28 Nov 2019	High Tide (ft)	6.3
S12	28 Nov 2019	High Tide Time	915
S12	28 Nov 2019	Low Tide (ft)	1.9
S12	28 Nov 2019	Low Tide Time	307
S12	28 Nov 2019	Comments	Resample; Kelp; Seagrass; 7 Persons; Water clear
S12	29 Nov 2019	Arrive Time	821
S12	29 Nov 2019	Weather	Partly Cloudy
S12	29 Nov 2019	Wind Speed (kts)	16.5
S12	29 Nov 2019	Wind Dir	W
S12	29 Nov 2019	Animal Life	2 Dogs; 1 Pelican
S12	29 Nov 2019	Floatables	Foam
S12	29 Nov 2019	Water Color	Brown
S12	29 Nov 2019	Current Direction	N
S12	29 Nov 2019	Water Temp (C)	15.9
S12	29 Nov 2019	Wave Height Low (ft)	4
S12	29 Nov 2019	High Tide (ft)	5.8
S12	29 Nov 2019	High Tide Time	953
S12	29 Nov 2019	Low Tide (ft)	2.3
S12	29 Nov 2019	Low Tide Time	346
S12	29 Nov 2019	Comments	Resample; Kelp; Seagrass; 4 Persons; Water turbid

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Kelp Stations

Table 3.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for total coliform bacteria at the SBOO kelp stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >1,000 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 Nov 2019	9*	5*	6*	5*	8*	7*	8*
02 Nov 2019	9*	5*	6*	5*	8*	7*	8*
03 Nov 2019	9*	5*	6*	5*	8*	7*	8*
04 Nov 2019	6	6	5	4	6	6	6
05 Nov 2019	6	6	5	4	6	6	6
06 Nov 2019	6	6	5	4	6	6	6
07 Nov 2019	6	6	5	4	6	6	6
08 Nov 2019	5*	5*	4*	4*	5*	5*	5*
09 Nov 2019	5*	5*	4*	4*	5*	5*	5*
10 Nov 2019	5*	5*	4*	4*	5*	5*	5*
11 Nov 2019	5*	5*	4*	4*	5*	5*	5*
12 Nov 2019	7	8	5	4	5	4	7
13 Nov 2019	7	8	5	4	5	4	7
14 Nov 2019	9*	11*	6*	5*	7*	5*	7*
15 Nov 2019	9*	11*	6*	5*	7*	5*	7*
16 Nov 2019	9*	11*	6*	5*	7*	5*	7*
17 Nov 2019	9*	11*	6*	5*	7*	5*	7*
18 Nov 2019	7	12	5	4	5	6	6
19 Nov 2019	7	12	5	4	5	6	6
20 Nov 2019	7	12	5	4	5	6	6
21 Nov 2019	9*	18*	6*	5*	7*	7*	7*
22 Nov 2019	9*	18*	6*	5*	7*	7*	7*
23 Nov 2019	9*	18*	6*	5*	7*	7*	7*
24 Nov 2019	9*	18*	6*	5*	7*	7*	7*
25 Nov 2019	23	67	29	25	14	10	30
26 Nov 2019	23	67	29	25	14	10	30
27 Nov 2019	23	67	29	25	14	10	30
28 Nov 2019	17*	90*	26*	23*	9*	6*	33*
29 Nov 2019	17*	90*	26*	23*	9*	6*	33*
30 Nov 2019	17*	90*	26*	23*	9*	6*	33*

* Geometric mean calculated using n<5

Table 3.2

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for fecal coliform bacteria at the SBOO kelp stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >200 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 Nov 2019	2*	2*	3*	2*	2*	2*	2*
02 Nov 2019	2*	2*	3*	2*	2*	2*	2*
03 Nov 2019	2*	2*	3*	2*	2*	2*	2*
04 Nov 2019	2	2	2	2	2	2	2
05 Nov 2019	2	2	2	2	2	2	2
06 Nov 2019	2	2	2	2	2	2	2
07 Nov 2019	2	2	2	2	2	2	2
08 Nov 2019	2*	2*	3*	2*	2*	2*	2*
09 Nov 2019	2*	2*	3*	2*	2*	2*	2*
10 Nov 2019	2*	2*	3*	2*	2*	2*	2*
11 Nov 2019	2*	2*	3*	2*	2*	2*	2*
12 Nov 2019	2	2	2	2	2	2	2
13 Nov 2019	2	2	2	2	2	2	2
14 Nov 2019	3*	2*	3*	2*	2*	2*	2*
15 Nov 2019	3*	2*	3*	2*	2*	2*	2*
16 Nov 2019	3*	2*	3*	2*	2*	2*	2*
17 Nov 2019	3*	2*	3*	2*	2*	2*	2*
18 Nov 2019	2	2	2	2	2	2	2
19 Nov 2019	2	2	2	2	2	2	2
20 Nov 2019	2	2	2	2	2	2	2
21 Nov 2019	3*	2*	3*	2*	2*	2*	2*
22 Nov 2019	3*	2*	3*	2*	2*	2*	2*
23 Nov 2019	3*	2*	3*	2*	2*	2*	2*
24 Nov 2019	3*	2*	3*	2*	2*	2*	2*
25 Nov 2019	7	9	10	9	4	3	8
26 Nov 2019	7	9	10	9	4	3	8
27 Nov 2019	7	9	10	9	4	3	8
28 Nov 2019	7*	12*	12*	13*	4*	3*	11*
29 Nov 2019	7*	12*	12*	13*	4*	3*	11*
30 Nov 2019	7*	12*	12*	13*	4*	3*	11*

* 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 Nov 2019	3*	3*	3*	3*	3*	3*	2*
02 Nov 2019	3*	3*	3*	3*	3*	3*	2*
03 Nov 2019	3*	3*	3*	3*	3*	3*	2*
04 Nov 2019	3	3	2	3	2	3	2
05 Nov 2019	3	3	2	3	2	3	2
06 Nov 2019	3	3	2	3	2	3	2
07 Nov 2019	3	3	2	3	2	3	2
08 Nov 2019	3*	3*	3*	3*	3*	3*	2*
09 Nov 2019	3*	3*	3*	3*	3*	3*	2*
10 Nov 2019	3*	3*	3*	3*	3*	3*	2*
11 Nov 2019	3*	3*	3*	3*	3*	3*	2*
12 Nov 2019	3	3	2	3	2	3	2
13 Nov 2019	3	3	2	3	2	3	2
14 Nov 2019	3*	3*	3*	3*	3*	3*	2*
15 Nov 2019	3*	3*	3*	3*	3*	3*	2*
16 Nov 2019	3*	3*	3*	3*	3*	3*	2*
17 Nov 2019	3*	3*	3*	3*	3*	3*	2*
18 Nov 2019	3	3	2	3	2	3	2
19 Nov 2019	3	3	2	3	2	3	2
20 Nov 2019	3	3	2	3	2	3	2
21 Nov 2019	3*	3*	3*	3*	3*	3*	2*
22 Nov 2019	3*	3*	3*	3*	3*	3*	2*
23 Nov 2019	3*	3*	3*	3*	3*	3*	2*
24 Nov 2019	3*	3*	3*	3*	3*	3*	2*
25 Nov 2019	5	7	6	7	5	3	5
26 Nov 2019	5	7	6	7	5	3	5
27 Nov 2019	5	7	6	7	5	3	5
28 Nov 2019	4*	7*	7*	8*	5*	2*	6*
29 Nov 2019	4*	7*	7*	8*	5*	2*	6*
30 Nov 2019	4*	7*	7*	8*	5*	2*	6*

* 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
04 Nov 2019	IC	IC	IC	IC	IC	IC	IC
12 Nov 2019	IC	IC	IC	IC	IC	IC	IC
18 Nov 2019	IC	IC	IC	IC	IC	IC	IC
25 Nov 2019	IC	E	E	E	IC	IC	E

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

Table 3.5

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

Date	I19	I24	I25	I26	I32	I39	I40
04 Nov 2019	IC	IC	IC	IC	IC	IC	IC
12 Nov 2019	IC	IC	IC	IC	IC	IC	IC
18 Nov 2019	IC	IC	IC	IC	IC	IC	IC
25 Nov 2019	E	E	E	E	IC	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
04 Nov 2019	IC	IC	IC	IC	IC	IC	IC
12 Nov 2019	IC	IC	IC	IC	IC	IC	IC
18 Nov 2019	IC	IC	IC	IC	IC	IC	IC
25 Nov 2019	IC	E	E	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
04 Nov 2019	IC	IC	IC	IC	IC	IC	IC
12 Nov 2019	IC	IC	IC	IC	IC	IC	IC
18 Nov 2019	IC	IC	IC	IC	IC	IC	IC
25 Nov 2019	E	E	E	E	IC	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* (Entero) bacteria are reported as CFU/100 mL; the fecal:total coliform ratio (F:T) is unitless; values for temperature (Temp,$^{\circ}$C), transmissivity (XMS, $\%$), dissolved oxygen (DO, mg/L), salinity (Sal, ppt) and pH were extracted from CTD profile data for depths closest to those at which the bacteriological samples were collected. Comments follow the data summary.

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
I19	04 Nov 2019	1005	2	<2	<2	<2	1.00	17.3	78.46	8.5	33.60	8.2
I19	04 Nov 2019	1005	6	<2	<2	<2	1.00	17.2	75.40	8.4	33.60	8.2
I19	04 Nov 2019	1005	11	<2	<2	<2	1.00	17.1	74.98	8.3	33.61	8.2
I19	12 Nov 2019	1029	2	20e	<2	<2	0.10	17.8	75.61	8.4	33.59	8.1
I19	12 Nov 2019	1029	6	14e	<2	<2	0.14	17.5	73.12	8.4	33.59	8.1
I19	12 Nov 2019	1029	11	36e	4e	<2	0.11	17.4	67.36	8.2	33.60	8.1
I19	18 Nov 2019	948	2	<2	<2	<2	1.00	15.4	66.50	7.6	33.64	8.1
I19	18 Nov 2019	948	6	<2	<2	<2	1.00	15.0	65.66	6.8	33.60	8.0
I19	18 Nov 2019	948	11	<2	<2	<2	1.00	14.7	62.56	6.4	33.61	8.0
I19	25 Nov 2019	1007	2	160e	40	4e	0.25	16.7	69.88	8.6	33.48	8.2
I19	25 Nov 2019	1007	6	1600e	340e	36e	0.21	16.6	67.66	8.4	33.48	8.2
I19	25 Nov 2019	1007	11	800e	500	74	0.62	16.5	67.15	8.3	33.48	8.1
I24	04 Nov 2019	1024	2	<2	<2	<2	1.00	17.3	80.16	8.5	33.62	8.2
I24	04 Nov 2019	1024	6	<2	<2	<2	1.00	17.1	79.18	8.5	33.62	8.2
I24	04 Nov 2019	1024	11	<20	<2	<2	0.10	17.1	80.53	8.2	33.62	8.2
I24	12 Nov 2019	1057	2	24e	<2	<2	0.08	17.8	74.64	8.1	33.56	8.1
I24	12 Nov 2019	1057	6	100e	<2	<2	0.02	17.7	72.20	8.6	33.56	8.2
I24	12 Nov 2019	1057	11	28e	4e	<2	0.14	17.4	77.32	7.6	33.59	8.1
I24	18 Nov 2019	1007	2	<20	<2	<2	0.10	15.9	70.95	7.5	33.62	8.1
I24	18 Nov 2019	1007	6	<2	<2	<2	1.00	15.4	67.95	7.0	33.60	8.1
I24	18 Nov 2019	1007	11	<20	<2	<2	0.10	15.1	50.45	6.7	33.58	8.0
I24	25 Nov 2019	1025	2	>16000	3400e	400	0.21	16.6	65.19	8.2	33.42	8.1
I24	25 Nov 2019	1025	6	>16000	1400e	200e	0.09	16.6	65.74	7.8	33.46	8.1
I24	25 Nov 2019	1025	11	3400e	600e	200e	0.18	16.6	27.73	7.2	33.52	8.1
I25	04 Nov 2019	1031	2	<2	<2	<2	1.00	17.2	79.89	8.3	33.63	8.2
I25	04 Nov 2019	1031	6	<2	<2	<2	1.00	17.2	79.71	8.3	33.62	8.2
I25	04 Nov 2019	1031	9	<2	<2	<2	1.00	17.2	81.08	8.3	33.62	8.2
I25	12 Nov 2019	1104	2	14e	2e	<2	0.14	17.8	72.15	8.4	33.55	8.1
I25	12 Nov 2019	1104	6	10e	2e	<2	0.20	17.6	79.24	7.7	33.59	8.1
I25	12 Nov 2019	1104	9	2e	<2	<2	1.00	17.5	77.69	7.7	33.59	8.1
I25	18 Nov 2019	1013	2	<2	<2	<2	1.00	16.0	74.02	7.7	33.62	8.1
I25	18 Nov 2019	1013	6	<2	<2	<2	1.00	15.3	70.90	6.7	33.60	8.1
I25	18 Nov 2019	1013	9	<2	<2	<2	1.00	15.2	77.16	6.5	33.60	8.0
I25	25 Nov 2019	1031	2	>16000	3000e	300e	0.19	16.6	64.78	8.1	33.41	8.1
I25	25 Nov 2019	1031	6	>16000	3800e	240e	0.24	16.6	63.97	7.5	33.50	8.1
I25	25 Nov 2019	1031	9	5200	580	140e	0.11	16.6	40.12	7.3	33.51	8.1

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
I26	04 Nov 2019	1039	2	<2	<2	<2	1.00	17.2	78.99	8.6	33.64	8.2
I26	04 Nov 2019	1039	6	<2	<2	4e	1.00	17.1	78.52	8.5	33.63	8.2
I26	04 Nov 2019	1039	9	<2	<2	<2	1.00	17.0	77.67	8.2	33.64	8.2
I26	12 Nov 2019	1114	2	6e	<2	2e	0.33	17.9	75.36	8.4	33.59	8.2
I26	12 Nov 2019	1114	6	2e	<2	<2	1.00	17.5	78.57	8.0	33.60	8.1
I26	12 Nov 2019	1114	9	<2	<2	<2	1.00	17.5	77.03	7.9	33.60	8.1
I26	18 Nov 2019	1021	2	<2	<2	<2	1.00	16.4	77.35	8.1	33.63	8.2
I26	18 Nov 2019	1021	6	4e	<2	<2	0.50	15.0	75.93	6.8	33.61	8.1
I26	18 Nov 2019	1021	9	2e	<2	<2	1.00	14.9	77.77	6.6	33.60	8.0
I26	25 Nov 2019	1041	2	>16000	4000	300e	0.25	16.6	61.79	7.9	33.45	8.1
I26	25 Nov 2019	1041	6	>16000	4000	620	0.25	16.5	57.74	7.8	33.46	8.1
I26	25 Nov 2019	1041	9	>16000	2600e	220e	0.16	16.5	57.21	7.8	33.49	8.1
I32	04 Nov 2019	1052	2	<2	<2	<2	1.00	17.1	73.54	8.5	33.65	8.2
I32	04 Nov 2019	1052	6	<2	<2	<2	1.00	17.0	71.09	8.5	33.66	8.2
I32	04 Nov 2019	1052	9	2e	<2	<2	1.00	16.9	70.40	8.5	33.66	8.2
I32	12 Nov 2019	1127	2	<2	<2	<2	1.00	17.9	77.15	8.3	33.58	8.2
I32	12 Nov 2019	1127	6	<2	<2	<2	1.00	17.6	78.38	8.2	33.59	8.2
I32	12 Nov 2019	1127	9	<20	<2	<2	0.10	17.5	67.73	7.8	33.59	8.1
I32	18 Nov 2019	1032	2	<2	<2	<2	1.00	16.4	77.58	8.1	33.66	8.2
I32	18 Nov 2019	1032	6	<2	<2	<2	1.00	15.3	60.23	7.1	33.65	8.1
I32	18 Nov 2019	1032	9	2e	<2	<2	1.00	14.9	64.36	6.4	33.60	8.0
I32	25 Nov 2019	1051	2	80e	2e	30e	0.02	16.6	58.78	8.2	33.52	8.1
I32	25 Nov 2019	1051	6	240e	74	74	0.31	16.4	54.01	8.0	33.52	8.1
I32	25 Nov 2019	1051	9	320e	64	160e	0.20	16.3	53.11	7.8	33.52	8.1
I39	04 Nov 2019	946	2	<2	<2	<2	1.00	17.1	79.09	8.5	33.63	8.2
I39	04 Nov 2019	946	12	<2	<2	<2	1.00	16.9	77.79	8.2	33.63	8.2
I39	04 Nov 2019	946	18	<2	<2	<2	1.00	15.9	83.10	7.0	33.62	8.1
I39	12 Nov 2019	1011	2	<2	<2	<2	1.00	17.9	84.12	8.3	33.61	8.2
I39	12 Nov 2019	1011	12	2e	<2	<2	1.00	17.6	83.03	8.3	33.61	8.2
I39	12 Nov 2019	1011	18	2e	<2	<2	1.00	17.1	81.32	8.0	33.60	8.1
I39	18 Nov 2019	930	2	<2	<2	<2	1.00	16.5	79.76	8.2	33.63	8.2
I39	18 Nov 2019	930	12	<20	<2	2e	0.10	14.9	84.24	6.8	33.60	8.1
I39	18 Nov 2019	930	18	<2	<2	<2	1.00	14.3	83.73	6.5	33.61	8.0
I39	25 Nov 2019	948	2	<20	4e	6e	0.20	16.9	80.40	8.1	33.56	8.2
I39	25 Nov 2019	948	12	<20	10e	<2	0.50	16.9	80.56	8.1	33.56	8.2
I39	25 Nov 2019	948	18	60e	12e	4e	0.20	16.8	79.15	7.8	33.56	8.1
I40	04 Nov 2019	1016	2	<2	<2	<2	1.00	17.3	77.60	8.6	33.62	8.2
I40	04 Nov 2019	1016	6	<2	<2	<2	1.00	17.2	78.52	8.6	33.62	8.2
I40	04 Nov 2019	1016	9	<2	<2	<2	1.00	17.2	77.75	8.6	33.61	8.2
I40	12 Nov 2019	1041	2	28e	<2	<2	0.07	17.9	72.24	8.3	33.57	8.1
I40	12 Nov 2019	1041	6	20e	2e	2e	0.10	17.6	76.47	8.5	33.58	8.2

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
I40	12 Nov 2019	1041	9	24e	4e	<2	0.17	17.5	76.57	8.2	33.58	8.1
I40	18 Nov 2019	1004	2	<2	<2	<2	1.00	15.5	68.72	6.5	33.60	8.1
I40	18 Nov 2019	1004	6	2e	<2	<2	1.00	15.1	63.22	6.6	33.61	8.0
I40	18 Nov 2019	1004	9	4e	<2	<2	0.50	15.0	56.64	6.4	33.61	8.0
I40	25 Nov 2019	1017	2	11000	1400e	140e	0.13	16.6	72.00	8.2	33.46	8.2
I40	25 Nov 2019	1017	6	8400	1400e	240e	0.17	16.6	69.72	8.2	33.47	8.2
I40	25 Nov 2019	1017	9	7800	800	200e	0.10	16.5	61.25	8.1	33.47	8.1

ns = not sampled
ND = no data

Table 3.9

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

Station	Date	Parameter	Value
I19	04 Nov 2019	Depth (m)	10
I19	04 Nov 2019	Arrive Time	1005
I19	04 Nov 2019	Depart Time	1007
I19	04 Nov 2019	Air Temp (C)	18
I19	04 Nov 2019	Weather	Haze
I19	04 Nov 2019	Visibility (mi)	13
I19	04 Nov 2019	Wind Speed (kts)	7
I19	04 Nov 2019	Wind Dir	SW
I19	04 Nov 2019	Water Color	Greenish-Brown
I19	04 Nov 2019	Wave Ht Low (ft)	1
I19	04 Nov 2019	Wave Period (sec)	13
I19	04 Nov 2019	Sea State	Calm
I19	04 Nov 2019	High Tide (ft)	6.33
I19	04 Nov 2019	High Tide Time	2106
I19	04 Nov 2019	Low Tide (ft)	-0.71
I19	04 Nov 2019	Low Tide Time	405
I19	04 Nov 2019	Comments	none
I19	12 Nov 2019	Depth (m)	6
I19	12 Nov 2019	Arrive Time	1029
I19	12 Nov 2019	Depart Time	1035
I19	12 Nov 2019	Air Temp (C)	15
I19	12 Nov 2019	Weather	Fog
I19	12 Nov 2019	Visibility (mi)	1
I19	12 Nov 2019	Wind Speed (kts)	6
I19	12 Nov 2019	Wind Dir	W
I19	12 Nov 2019	Water Color	Green
I19	12 Nov 2019	Wave Ht Low (ft)	3
I19	12 Nov 2019	Wave Period (sec)	13
I19	12 Nov 2019	Sea State	Wind ripples
I19	12 Nov 2019	High Tide (ft)	6.33
I19	12 Nov 2019	High Tide Time	2106
I19	12 Nov 2019	Low Tide (ft)	-0.71
I19	12 Nov 2019	Low Tide Time	405
I19	12 Nov 2019	Comments	none
I19	18 Nov 2019	Depth (m)	11
I19	18 Nov 2019	Arrive Time	948
I19	18 Nov 2019	Depart Time	954
I19	18 Nov 2019	Air Temp (C)	30
I19	18 Nov 2019	Weather	Partly Cloudy
I19	18 Nov 2019	Visibility (mi)	9
I19	18 Nov 2019	Wind Speed (kts)	13
I19	18 Nov 2019	Wind Dir	N
I19	18 Nov 2019	Water Color	Green
I19	18 Nov 2019	Wave Ht Low (ft)	3
I19	18 Nov 2019	Wave Period (sec)	13
I19	18 Nov 2019	Sea State	Calm
I19	18 Nov 2019	High Tide (ft)	6.33
I19	18 Nov 2019	High Tide Time	2106
I19	18 Nov 2019	Low Tide (ft)	-0.71

Station	Date	Parameter	Value
I19	18 Nov 2019	Low Tide Time	405
I19	18 Nov 2019	Comments	none
I19	25 Nov 2019	Depth (m)	11
I19	25 Nov 2019	Arrive Time	1007
I19	25 Nov 2019	Depart Time	1010
I19	25 Nov 2019	Air Temp (C)	17
I19	25 Nov 2019	Weather	Partly Cloudy
I19	25 Nov 2019	Visibility (mi)	12
I19	25 Nov 2019	Wind Speed (kts)	6
I19	25 Nov 2019	Wind Dir	E
I19	25 Nov 2019	Water Color	Greenish-Brown
I19	25 Nov 2019	Wave Ht Low (ft)	2
I19	25 Nov 2019	Wave Period (sec)	11
I19	25 Nov 2019	Sea State	Light chop
I19	25 Nov 2019	High Tide (ft)	6.33
I19	25 Nov 2019	High Tide Time	2106
I19	25 Nov 2019	Low Tide (ft)	-0.71
I19	25 Nov 2019	Low Tide Time	405
I19	25 Nov 2019	Comments	none
I24	04 Nov 2019	Depth (m)	11
I24	04 Nov 2019	Arrive Time	1024
I24	04 Nov 2019	Depart Time	1025
I24	04 Nov 2019	Air Temp (C)	17
I24	04 Nov 2019	Weather	Haze
I24	04 Nov 2019	Visibility (mi)	15
I24	04 Nov 2019	Wind Speed (kts)	6
I24	04 Nov 2019	Wind Dir	SW
I24	04 Nov 2019	Water Color	Greenish-Brown
I24	04 Nov 2019	Wave Ht Low (ft)	1
I24	04 Nov 2019	Wave Period (sec)	13
I24	04 Nov 2019	Sea State	Calm
I24	04 Nov 2019	High Tide (ft)	6.33
I24	04 Nov 2019	High Tide Time	2106
I24	04 Nov 2019	Low Tide (ft)	-0.71
I24	04 Nov 2019	Low Tide Time	405
I24	04 Nov 2019	Comments	none
I24	12 Nov 2019	Depth (m)	7
I24	12 Nov 2019	Arrive Time	1057
I24	12 Nov 2019	Depart Time	1101
I24	12 Nov 2019	Air Temp (C)	16
I24	12 Nov 2019	Weather	Fog
I24	12 Nov 2019	Visibility (mi)	2
I24	12 Nov 2019	Wind Speed (kts)	4
I24	12 Nov 2019	Wind Dir	SW
I24	12 Nov 2019	Water Color	Green
I24	12 Nov 2019	Wave Ht Low (ft)	3
I24	12 Nov 2019	Wave Period (sec)	13
I24	12 Nov 2019	Sea State	Wind ripples
I24	12 Nov 2019	High Tide (ft)	6.33
I24	12 Nov 2019	High Tide Time	2106
I24	12 Nov 2019	Low Tide (ft)	-0.71
I24	12 Nov 2019	Low Tide Time	405

Station	Date	Parameter	Value
I24	12 Nov 2019	Comments	none
I24	18 Nov 2019	Depth (m)	11
I24	18 Nov 2019	Arrive Time	1007
I24	18 Nov 2019	Depart Time	1011
I24	18 Nov 2019	Air Temp (C)	23
I24	18 Nov 2019	Weather	Partly Cloudy
I24	18 Nov 2019	Visibility (mi)	9
I24	18 Nov 2019	Wind Speed (kts)	4
I24	18 Nov 2019	Wind Dir	SW
I24	18 Nov 2019	Water Color	Green
I24	18 Nov 2019	Wave Ht Low (ft)	3
I24	18 Nov 2019	Wave Period (sec)	13
I24	18 Nov 2019	Sea State	Calm
I24	18 Nov 2019	High Tide (ft)	6.33
I24	18 Nov 2019	High Tide Time	2106
I24	18 Nov 2019	Low Tide (ft)	-0.71
I24	18 Nov 2019	Low Tide Time	405
I24	18 Nov 2019	Comments	none
I24	25 Nov 2019	Depth (m)	11
I24	25 Nov 2019	Arrive Time	1025
I24	25 Nov 2019	Depart Time	1026
I24	25 Nov 2019	Air Temp (C)	17
I24	25 Nov 2019	Weather	Partly Cloudy
I24	25 Nov 2019	Visibility (mi)	12
I24	25 Nov 2019	Wind Speed (kts)	1
I24	25 Nov 2019	Wind Dir	E
I24	25 Nov 2019	Water Color	Greenish-Brown
I24	25 Nov 2019	Wave Ht Low (ft)	2
I24	25 Nov 2019	Wave Period (sec)	11
I24	25 Nov 2019	Sea State	Light chop
I24	25 Nov 2019	High Tide (ft)	6.33
I24	25 Nov 2019	High Tide Time	2106
I24	25 Nov 2019	Low Tide (ft)	-0.71
I24	25 Nov 2019	Low Tide Time	405
I24	25 Nov 2019	Comments	none
I25	04 Nov 2019	Depth (m)	9
I25	04 Nov 2019	Arrive Time	1031
I25	04 Nov 2019	Depart Time	1033
I25	04 Nov 2019	Air Temp (C)	18
I25	04 Nov 2019	Weather	Haze
I25	04 Nov 2019	Visibility (mi)	15
I25	04 Nov 2019	Wind Speed (kts)	4
I25	04 Nov 2019	Wind Dir	SW
I25	04 Nov 2019	Water Color	Greenish-Brown
I25	04 Nov 2019	Wave Ht Low (ft)	1
I25	04 Nov 2019	Wave Period (sec)	13
I25	04 Nov 2019	Sea State	Calm
I25	04 Nov 2019	High Tide (ft)	6.33
I25	04 Nov 2019	High Tide Time	2106
I25	04 Nov 2019	Low Tide (ft)	-0.71
I25	04 Nov 2019	Low Tide Time	405
I25	04 Nov 2019	Comments	none

Station	Date	Parameter	Value
I25	12 Nov 2019	Depth (m)	9
I25	12 Nov 2019	Arrive Time	1104
I25	12 Nov 2019	Depart Time	1108
I25	12 Nov 2019	Air Temp (C)	16
I25	12 Nov 2019	Weather	Fog
I25	12 Nov 2019	Visibility (mi)	3
I25	12 Nov 2019	Wind Speed (kts)	6
I25	12 Nov 2019	Wind Dir	SW
I25	12 Nov 2019	Water Color	Green
I25	12 Nov 2019	Wave Ht Low (ft)	3
I25	12 Nov 2019	Wave Period (sec)	13
I25	12 Nov 2019	Sea State	Wind ripples
I25	12 Nov 2019	High Tide (ft)	6.33
I25	12 Nov 2019	High Tide Time	2106
I25	12 Nov 2019	Low Tide (ft)	-0.71
I25	12 Nov 2019	Low Tide Time	405
I25	12 Nov 2019	Comments	none
I25	18 Nov 2019	Depth (m)	9
I25	18 Nov 2019	Arrive Time	1013
I25	18 Nov 2019	Depart Time	1016
I25	18 Nov 2019	Air Temp (C)	26
I25	18 Nov 2019	Weather	Partly Cloudy
I25	18 Nov 2019	Visibility (mi)	9
I25	18 Nov 2019	Wind Speed (kts)	5
I25	18 Nov 2019	Wind Dir	SW
I25	18 Nov 2019	Water Color	Green
I25	18 Nov 2019	Wave Ht Low (ft)	3
I25	18 Nov 2019	Wave Period (sec)	13
I25	18 Nov 2019	Sea State	Calm
I25	18 Nov 2019	High Tide (ft)	6.33
I25	18 Nov 2019	High Tide Time	2106
I25	18 Nov 2019	Low Tide (ft)	-0.71
I25	18 Nov 2019	Low Tide Time	405
I25	18 Nov 2019	Comments	none
I25	25 Nov 2019	Depth (m)	9
I25	25 Nov 2019	Arrive Time	1031
I25	25 Nov 2019	Depart Time	1036
I25	25 Nov 2019	Air Temp (C)	17
I25	25 Nov 2019	Weather	Partly Cloudy
I25	25 Nov 2019	Visibility (mi)	12
I25	25 Nov 2019	Wind Speed (kts)	2
I25	25 Nov 2019	Wind Dir	E
I25	25 Nov 2019	Water Color	Greenish-Brown
I25	25 Nov 2019	Wave Ht Low (ft)	2
I25	25 Nov 2019	Wave Period (sec)	13
I25	25 Nov 2019	Sea State	Calm
I25	25 Nov 2019	High Tide (ft)	6.33
I25	25 Nov 2019	High Tide Time	2106
I25	25 Nov 2019	Low Tide (ft)	-0.71
I25	25 Nov 2019	Low Tide Time	405
I25	25 Nov 2019	Comments	none

Station	Date	Parameter	Value
I26	04 Nov 2019	Depth (m)	10
I26	04 Nov 2019	Arrive Time	1039
I26	04 Nov 2019	Depart Time	1041
I26	04 Nov 2019	Air Temp (C)	18
I26	04 Nov 2019	Weather	Haze
I26	04 Nov 2019	Visibility (mi)	15
I26	04 Nov 2019	Wind Speed (kts)	5
I26	04 Nov 2019	Wind Dir	SW
I26	04 Nov 2019	Water Color	Greenish-Brown
I26	04 Nov 2019	Wave Ht Low (ft)	1
I26	04 Nov 2019	Wave Period (sec)	13
I26	04 Nov 2019	Sea State	Calm
I26	04 Nov 2019	High Tide (ft)	6.33
I26	04 Nov 2019	High Tide Time	2106
I26	04 Nov 2019	Low Tide (ft)	-0.71
I26	04 Nov 2019	Low Tide Time	405
I26	04 Nov 2019	Comments	none
I26	12 Nov 2019	Depth (m)	11
I26	12 Nov 2019	Arrive Time	1114
I26	12 Nov 2019	Depart Time	1119
I26	12 Nov 2019	Air Temp (C)	16
I26	12 Nov 2019	Weather	Fog
I26	12 Nov 2019	Visibility (mi)	3
I26	12 Nov 2019	Wind Speed (kts)	5
I26	12 Nov 2019	Wind Dir	SW
I26	12 Nov 2019	Water Color	Green
I26	12 Nov 2019	Wave Ht Low (ft)	3
I26	12 Nov 2019	Wave Period (sec)	13
I26	12 Nov 2019	Sea State	Wind ripples
I26	12 Nov 2019	High Tide (ft)	6.33
I26	12 Nov 2019	High Tide Time	2106
I26	12 Nov 2019	Low Tide (ft)	-0.71
I26	12 Nov 2019	Low Tide Time	405
I26	12 Nov 2019	Comments	none
I26	18 Nov 2019	Depth (m)	10
I26	18 Nov 2019	Arrive Time	1021
I26	18 Nov 2019	Depart Time	1026
I26	18 Nov 2019	Air Temp (C)	23
I26	18 Nov 2019	Weather	Partly Cloudy
I26	18 Nov 2019	Visibility (mi)	9
I26	18 Nov 2019	Wind Speed (kts)	5
I26	18 Nov 2019	Wind Dir	SW
I26	18 Nov 2019	Water Color	Green
I26	18 Nov 2019	Wave Ht Low (ft)	3
I26	18 Nov 2019	Wave Period (sec)	13
I26	18 Nov 2019	Sea State	Calm
I26	18 Nov 2019	High Tide (ft)	6.33
I26	18 Nov 2019	High Tide Time	2106
I26	18 Nov 2019	Low Tide (ft)	-0.71
I26	18 Nov 2019	Low Tide Time	405
I26	18 Nov 2019	Comments	none
I26	25 Nov 2019	Depth (m)	9

Station	Date	Parameter	Value
I26	25 Nov 2019	Arrive Time	1041
I26	25 Nov 2019	Depart Time	1043
I26	25 Nov 2019	Air Temp (C)	17
I26	25 Nov 2019	Weather	Partly Cloudy
I26	25 Nov 2019	Visibility (mi)	12
I26	25 Nov 2019	Wind Speed (kts)	2
I26	25 Nov 2019	Wind Dir	SE
I26	25 Nov 2019	Water Color	Greenish-Brown
I26	25 Nov 2019	Wave Ht Low (ft)	2
I26	25 Nov 2019	Wave Period (sec)	13
I26	25 Nov 2019	Sea State	Calm
I26	25 Nov 2019	High Tide (ft)	6.33
I26	25 Nov 2019	High Tide Time	2106
I26	25 Nov 2019	Low Tide (ft)	-0.71
I26	25 Nov 2019	Low Tide Time	405
I26	25 Nov 2019	Comments	none
I32	04 Nov 2019	Depth (m)	10
I32	04 Nov 2019	Arrive Time	1052
I32	04 Nov 2019	Depart Time	1053
I32	04 Nov 2019	Air Temp (C)	18
I32	04 Nov 2019	Weather	Haze
I32	04 Nov 2019	Visibility (mi)	15
I32	04 Nov 2019	Wind Speed (kts)	8
I32	04 Nov 2019	Wind Dir	SW
I32	04 Nov 2019	Water Color	Greenish-Brown
I32	04 Nov 2019	Wave Ht Low (ft)	1
I32	04 Nov 2019	Wave Period (sec)	13
I32	04 Nov 2019	Sea State	Calm
I32	04 Nov 2019	High Tide (ft)	6.33
I32	04 Nov 2019	High Tide Time	2106
I32	04 Nov 2019	Low Tide (ft)	-0.71
I32	04 Nov 2019	Low Tide Time	405
I32	04 Nov 2019	Comments	
I32	12 Nov 2019	Depth (m)	5
I32	12 Nov 2019	Arrive Time	1127
I32	12 Nov 2019	Depart Time	1133
I32	12 Nov 2019	Air Temp (C)	16
I32	12 Nov 2019	Weather	Fog
I32	12 Nov 2019	Visibility (mi)	5
I32	12 Nov 2019	Wind Speed (kts)	7
I32	12 Nov 2019	Wind Dir	S
I32	12 Nov 2019	Water Color	Green
I32	12 Nov 2019	Wave Ht Low (ft)	3
I32	12 Nov 2019	Wave Period (sec)	13
I32	12 Nov 2019	Sea State	Wind ripples
I32	12 Nov 2019	High Tide (ft)	6.33
I32	12 Nov 2019	High Tide Time	2106
I32	12 Nov 2019	Low Tide (ft)	-0.71
I32	12 Nov 2019	Low Tide Time	405
I32	12 Nov 2019	Comments	none
I32	18 Nov 2019	Depth (m)	11
I32	18 Nov 2019	Arrive Time	1032

Station	Date	Parameter	Value
I32	18 Nov 2019	Depart Time	1041
I32	18 Nov 2019	Air Temp (C)	21
I32	18 Nov 2019	Weather	Partly Cloudy
I32	18 Nov 2019	Visibility (mi)	9
I32	18 Nov 2019	Wind Speed (kts)	5
I32	18 Nov 2019	Wind Dir	SW
I32	18 Nov 2019	Water Color	Green
I32	18 Nov 2019	Wave Ht Low (ft)	3
I32	18 Nov 2019	Wave Period (sec)	13
I32	18 Nov 2019	Sea State	Calm
I32	18 Nov 2019	High Tide (ft)	6.33
I32	18 Nov 2019	High Tide Time	2106
I32	18 Nov 2019	Low Tide (ft)	-0.71
I32	18 Nov 2019	Low Tide Time	405
I32	18 Nov 2019	Comments	none
I32	25 Nov 2019	Depth (m)	10
I32	25 Nov 2019	Arrive Time	1051
I32	25 Nov 2019	Depart Time	1057
I32	25 Nov 2019	Air Temp (C)	17
I32	25 Nov 2019	Weather	Partly Cloudy
I32	25 Nov 2019	Visibility (mi)	12
I32	25 Nov 2019	Wind Speed (kts)	2
I32	25 Nov 2019	Wind Dir	SE
I32	25 Nov 2019	Water Color	Greenish-Brown
I32	25 Nov 2019	Wave Ht Low (ft)	2
I32	25 Nov 2019	Wave Period (sec)	13
I32	25 Nov 2019	Sea State	Calm
I32	25 Nov 2019	High Tide (ft)	6.33
I32	25 Nov 2019	High Tide Time	2106
I32	25 Nov 2019	Low Tide (ft)	-0.71
I32	25 Nov 2019	Low Tide Time	405
I32	25 Nov 2019	Comments	none
I39	04 Nov 2019	Depth (m)	18
I39	04 Nov 2019	Arrive Time	946
I39	04 Nov 2019	Depart Time	950
I39	04 Nov 2019	Air Temp (C)	18
I39	04 Nov 2019	Weather	Haze
I39	04 Nov 2019	Visibility (mi)	13
I39	04 Nov 2019	Wind Speed (kts)	1
I39	04 Nov 2019	Wind Dir	W
I39	04 Nov 2019	Water Color	Greenish-Blue
I39	04 Nov 2019	Wave Ht Low (ft)	1
I39	04 Nov 2019	Wave Period (sec)	13
I39	04 Nov 2019	Sea State	Calm
I39	04 Nov 2019	High Tide (ft)	6.33
I39	04 Nov 2019	High Tide Time	2106
I39	04 Nov 2019	Low Tide (ft)	-0.71
I39	04 Nov 2019	Low Tide Time	405
I39	04 Nov 2019	Comments	none
I39	12 Nov 2019	Depth (m)	20
I39	12 Nov 2019	Arrive Time	1011
I39	12 Nov 2019	Depart Time	1016

Station	Date	Parameter	Value
I39	12 Nov 2019	Air Temp (C)	15
I39	12 Nov 2019	Weather	Fog
I39	12 Nov 2019	Visibility (mi)	1
I39	12 Nov 2019	Wind Speed (kts)	3
I39	12 Nov 2019	Wind Dir	SW
I39	12 Nov 2019	Water Color	Green
I39	12 Nov 2019	Wave Ht Low (ft)	3
I39	12 Nov 2019	Wave Period (sec)	13
I39	12 Nov 2019	Sea State	Wind ripples
I39	12 Nov 2019	High Tide (ft)	6.33
I39	12 Nov 2019	High Tide Time	2106
I39	12 Nov 2019	Low Tide (ft)	-0.71
I39	12 Nov 2019	Low Tide Time	405
I39	12 Nov 2019	Comments	none
I39	18 Nov 2019	Depth (m)	20
I39	18 Nov 2019	Arrive Time	930
I39	18 Nov 2019	Depart Time	935
I39	18 Nov 2019	Air Temp (C)	20
I39	18 Nov 2019	Weather	Partly Cloudy
I39	18 Nov 2019	Visibility (mi)	9
I39	18 Nov 2019	Wind Speed (kts)	6
I39	18 Nov 2019	Wind Dir	W
I39	18 Nov 2019	Water Color	Green
I39	18 Nov 2019	Wave Ht Low (ft)	3
I39	18 Nov 2019	Wave Period (sec)	13
I39	18 Nov 2019	Sea State	Calm
I39	18 Nov 2019	High Tide (ft)	6.33
I39	18 Nov 2019	High Tide Time	2106
I39	18 Nov 2019	Low Tide (ft)	-0.71
I39	18 Nov 2019	Low Tide Time	405
I39	18 Nov 2019	Comments	none
I39	25 Nov 2019	Depth (m)	19
I39	25 Nov 2019	Arrive Time	948
I39	25 Nov 2019	Depart Time	951
I39	25 Nov 2019	Air Temp (C)	16
I39	25 Nov 2019	Weather	Partly Cloudy
I39	25 Nov 2019	Visibility (mi)	9
I39	25 Nov 2019	Wind Speed (kts)	7
I39	25 Nov 2019	Wind Dir	N
I39	25 Nov 2019	Water Color	Greenish-Blue
I39	25 Nov 2019	Wave Ht Low (ft)	3
I39	25 Nov 2019	Wave Period (sec)	11
I39	25 Nov 2019	Sea State	Light chop
I39	25 Nov 2019	High Tide (ft)	6.33
I39	25 Nov 2019	High Tide Time	2106
I39	25 Nov 2019	Low Tide (ft)	-0.71
I39	25 Nov 2019	Low Tide Time	405
I39	25 Nov 2019	Comments	none
I40	04 Nov 2019	Depth (m)	11
I40	04 Nov 2019	Arrive Time	1016
I40	04 Nov 2019	Depart Time	1017
I40	04 Nov 2019	Air Temp (C)	18

Station	Date	Parameter	Value
I40	04 Nov 2019	Weather	Haze
I40	04 Nov 2019	Visibility (mi)	15
I40	04 Nov 2019	Wind Speed (kts)	6
I40	04 Nov 2019	Wind Dir	SW
I40	04 Nov 2019	Water Color	Greenish-Brown
I40	04 Nov 2019	Wave Ht Low (ft)	1
I40	04 Nov 2019	Wave Period (sec)	13
I40	04 Nov 2019	Sea State	Calm
I40	04 Nov 2019	High Tide (ft)	6.33
I40	04 Nov 2019	High Tide Time	2106
I40	04 Nov 2019	Low Tide (ft)	-0.71
I40	04 Nov 2019	Low Tide Time	405
I40	04 Nov 2019	Comments	none
I40	12 Nov 2019	Depth (m)	10
I40	12 Nov 2019	Arrive Time	1041
I40	12 Nov 2019	Depart Time	1051
I40	12 Nov 2019	Air Temp (C)	15
I40	12 Nov 2019	Weather	Fog
I40	12 Nov 2019	Visibility (mi)	1
I40	12 Nov 2019	Wind Speed (kts)	4
I40	12 Nov 2019	Wind Dir	SW
I40	12 Nov 2019	Water Color	Green
I40	12 Nov 2019	Wave Ht Low (ft)	3
I40	12 Nov 2019	Wave Period (sec)	13
I40	12 Nov 2019	Sea State	Wind ripples
I40	12 Nov 2019	High Tide (ft)	6.33
I40	12 Nov 2019	High Tide Time	2106
I40	12 Nov 2019	Low Tide (ft)	-0.71
I40	12 Nov 2019	Low Tide Time	405
I40	12 Nov 2019	Comments	none
I40	18 Nov 2019	Depth (m)	8
I40	18 Nov 2019	Arrive Time	958
I40	18 Nov 2019	Depart Time	1004
I40	18 Nov 2019	Air Temp (C)	28
I40	18 Nov 2019	Weather	Partly Cloudy
I40	18 Nov 2019	Visibility (mi)	9
I40	18 Nov 2019	Wind Speed (kts)	2
I40	18 Nov 2019	Wind Dir	W
I40	18 Nov 2019	Water Color	Green
I40	18 Nov 2019	Wave Ht Low (ft)	3
I40	18 Nov 2019	Wave Period (sec)	13
I40	18 Nov 2019	Sea State	Calm
I40	18 Nov 2019	High Tide (ft)	6.33
I40	18 Nov 2019	High Tide Time	2106
I40	18 Nov 2019	Low Tide (ft)	-0.71
I40	18 Nov 2019	Low Tide Time	405
I40	18 Nov 2019	Comments	none
I40	25 Nov 2019	Depth (m)	11
I40	25 Nov 2019	Arrive Time	1017
I40	25 Nov 2019	Depart Time	1020
I40	25 Nov 2019	Air Temp (C)	17
I40	25 Nov 2019	Weather	Partly Cloudy

Station	Date	Parameter	Value
I40	25 Nov 2019	Visibility (mi)	12
I40	25 Nov 2019	Wind Speed (kts)	5
I40	25 Nov 2019	Wind Dir	E
I40	25 Nov 2019	Water Color	Greenish-Brown
I40	25 Nov 2019	Wave Ht Low (ft)	2
I40	25 Nov 2019	Wave Period (sec)	11
I40	25 Nov 2019	Sea State	Light chop
I40	25 Nov 2019	High Tide (ft)	6.33
I40	25 Nov 2019	High Tide Time	2106
I40	25 Nov 2019	Low Tide (ft)	-0.71
I40	25 Nov 2019	Low Tide Time	405
I40	25 Nov 2019	Comments	none

Table 3.10

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

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I19	04 Nov 2019	1	17.28	78.63	8.5	33.60	8.2	24.4	1.23
I19	04 Nov 2019	2	17.26	78.46	8.5	33.60	8.2	24.4	1.28
I19	04 Nov 2019	3	17.25	78.14	8.5	33.60	8.2	24.4	1.49
I19	04 Nov 2019	4	17.22	77.43	8.5	33.60	8.2	24.4	1.91
I19	04 Nov 2019	5	17.19	76.69	8.5	33.60	8.2	24.4	2.54
I19	04 Nov 2019	6	17.18	75.40	8.4	33.60	8.2	24.4	3.38
I19	04 Nov 2019	7	17.14	73.82	8.4	33.60	8.2	24.4	4.32
I19	04 Nov 2019	8	17.12	73.29	8.3	33.60	8.2	24.4	4.88
I19	04 Nov 2019	9	17.10	73.66	8.4	33.60	8.2	24.4	4.98
I19	04 Nov 2019	10	17.07	74.98	8.3	33.61	8.2	24.4	4.29
I19	12 Nov 2019	1	17.84	75.55	8.3	33.58	8.1	24.2	1.31
I19	12 Nov 2019	2	17.80	75.61	8.4	33.59	8.1	24.2	1.31
I19	12 Nov 2019	3	17.64	76.52	8.5	33.61	8.1	24.3	1.46
I19	12 Nov 2019	4	17.55	77.70	8.6	33.60	8.1	24.3	1.78
I19	12 Nov 2019	5	17.52	76.70	8.5	33.60	8.1	24.3	2.18
I19	12 Nov 2019	6	17.48	73.12	8.4	33.59	8.1	24.3	2.75
I19	12 Nov 2019	7	17.45	69.98	8.3	33.59	8.1	24.3	3.18
I19	12 Nov 2019	8	17.43	68.96	8.3	33.59	8.1	24.3	3.57
I19	12 Nov 2019	9	17.41	67.59	8.2	33.59	8.1	24.3	3.74
I19	12 Nov 2019	10	17.35	67.36	8.2	33.60	8.1	24.4	3.78
I19	18 Nov 2019	1	15.73	68.68	7.8	33.63	8.1	24.8	1.32
I19	18 Nov 2019	2	15.42	66.50	7.6	33.64	8.1	24.8	1.88
I19	18 Nov 2019	3	15.19	62.91	7.3	33.61	8.1	24.9	2.83
I19	18 Nov 2019	4	15.12	64.07	7.1	33.61	8.1	24.9	3.31
I19	18 Nov 2019	5	15.03	64.43	6.9	33.61	8.1	24.9	3.43
I19	18 Nov 2019	6	14.96	65.66	6.8	33.60	8.0	24.9	3.17
I19	18 Nov 2019	7	14.96	66.09	6.8	33.60	8.0	24.9	3.03
I19	18 Nov 2019	8	14.92	65.90	6.7	33.60	8.0	24.9	2.59
I19	18 Nov 2019	9	14.82	65.36	6.6	33.60	8.0	24.9	2.16
I19	18 Nov 2019	10	14.71	62.56	6.4	33.61	8.0	25.0	1.89
I19	25 Nov 2019	1	16.77	70.82	8.6	33.48	8.2	24.4	1.98
I19	25 Nov 2019	2	16.70	69.88	8.6	33.48	8.2	24.4	2.47
I19	25 Nov 2019	3	16.65	68.10	8.6	33.48	8.2	24.4	3.52
I19	25 Nov 2019	4	16.64	67.60	8.5	33.47	8.2	24.4	4.38
I19	25 Nov 2019	5	16.64	67.35	8.5	33.48	8.2	24.4	4.61
I19	25 Nov 2019	6	16.64	67.66	8.4	33.48	8.2	24.4	4.49
I19	25 Nov 2019	7	16.62	68.35	8.3	33.48	8.2	24.4	4.28
I19	25 Nov 2019	8	16.58	68.63	8.3	33.48	8.2	24.4	3.95
I19	25 Nov 2019	9	16.54	68.02	8.3	33.48	8.1	24.5	3.55
I19	25 Nov 2019	10	16.51	67.15	8.3	33.48	8.1	24.5	3.26
I24	04 Nov 2019	1	17.34	80.03	8.5	33.62	8.2	24.4	0.78
I24	04 Nov 2019	2	17.33	80.16	8.5	33.62	8.2	24.4	0.79
I24	04 Nov 2019	3	17.26	79.83	8.5	33.62	8.2	24.4	0.87
I24	04 Nov 2019	4	17.20	79.21	8.5	33.62	8.2	24.4	1.03
I24	04 Nov 2019	5	17.17	79.12	8.5	33.62	8.2	24.4	1.22
I24	04 Nov 2019	6	17.15	79.18	8.5	33.62	8.2	24.4	1.39
I24	04 Nov 2019	7	17.12	79.41	8.5	33.62	8.2	24.4	1.53

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I24	04 Nov 2019	8	17.10	79.39	8.5	33.62	8.2	24.4	1.70
I24	04 Nov 2019	9	17.09	79.12	8.4	33.62	8.2	24.4	1.85
I24	04 Nov 2019	10	17.05	80.10	8.2	33.62	8.2	24.4	1.84
I24	04 Nov 2019	11	17.05	80.53	8.2	33.62	8.2	24.4	1.75
I24	12 Nov 2019	1	17.82	74.52	8.2	33.56	8.1	24.2	1.57
I24	12 Nov 2019	2	17.80	74.64	8.1	33.56	8.1	24.2	1.54
I24	12 Nov 2019	3	17.78	74.31	8.2	33.56	8.1	24.2	1.85
I24	12 Nov 2019	4	17.75	73.49	8.4	33.56	8.1	24.2	2.82
I24	12 Nov 2019	5	17.74	72.40	8.5	33.56	8.2	24.2	3.86
I24	12 Nov 2019	6	17.71	72.20	8.6	33.56	8.2	24.2	4.68
I24	12 Nov 2019	7	17.69	72.81	8.6	33.56	8.2	24.2	4.72
I24	12 Nov 2019	8	17.65	75.61	8.4	33.56	8.1	24.3	3.87
I24	12 Nov 2019	9	17.53	77.81	7.9	33.59	8.1	24.3	2.56
I24	12 Nov 2019	10	17.43	77.32	7.6	33.59	8.1	24.3	1.62
I24	18 Nov 2019	1	16.04	71.55	7.6	33.62	8.1	24.7	0.84
I24	18 Nov 2019	2	15.94	70.95	7.5	33.62	8.1	24.7	0.97
I24	18 Nov 2019	3	15.76	69.60	7.4	33.62	8.1	24.7	1.21
I24	18 Nov 2019	4	15.62	68.30	7.3	33.61	8.1	24.8	1.79
I24	18 Nov 2019	5	15.46	67.35	7.2	33.61	8.1	24.8	3.08
I24	18 Nov 2019	6	15.36	67.95	7.0	33.60	8.1	24.8	3.73
I24	18 Nov 2019	7	15.32	70.12	6.9	33.60	8.1	24.8	3.32
I24	18 Nov 2019	8	15.26	73.93	6.9	33.60	8.1	24.8	2.39
I24	18 Nov 2019	9	15.17	77.18	6.8	33.60	8.1	24.9	1.67
I24	18 Nov 2019	10	14.98	73.53	6.7	33.61	8.1	24.9	1.28
I24	18 Nov 2019	11	15.06	50.45	6.7	33.58	8.0	24.9	1.35
I24	25 Nov 2019	1	16.62	66.10	8.2	33.42	8.1	24.4	2.03
I24	25 Nov 2019	2	16.57	65.19	8.2	33.42	8.1	24.4	2.62
I24	25 Nov 2019	3	16.55	64.58	8.1	33.42	8.1	24.4	3.46
I24	25 Nov 2019	4	16.56	64.77	8.1	33.43	8.1	24.4	3.56
I24	25 Nov 2019	5	16.57	65.58	8.0	33.44	8.1	24.4	3.53
I24	25 Nov 2019	6	16.60	65.74	7.8	33.46	8.1	24.4	3.14
I24	25 Nov 2019	7	16.61	65.48	7.6	33.50	8.1	24.5	2.54
I24	25 Nov 2019	8	16.60	65.64	7.6	33.52	8.1	24.5	2.35
I24	25 Nov 2019	9	16.58	55.47	7.4	33.52	8.1	24.5	2.34
I24	25 Nov 2019	10	16.57	31.52	7.2	33.52	8.1	24.5	2.35
I24	25 Nov 2019	11	16.57	27.73	7.2	33.52	8.1	24.5	2.37
I25	04 Nov 2019	1	17.27	79.96	8.4	33.62	8.2	24.4	0.91
I25	04 Nov 2019	2	17.25	79.89	8.3	33.63	8.2	24.4	0.89
I25	04 Nov 2019	3	17.22	79.66	8.3	33.62	8.2	24.4	0.99
I25	04 Nov 2019	4	17.20	79.36	8.3	33.62	8.2	24.4	1.13
I25	04 Nov 2019	5	17.18	79.36	8.3	33.62	8.2	24.4	1.32
I25	04 Nov 2019	6	17.17	79.71	8.3	33.62	8.2	24.4	1.48
I25	04 Nov 2019	7	17.17	80.89	8.3	33.62	8.2	24.4	1.39
I25	04 Nov 2019	8	17.17	81.11	8.3	33.62	8.2	24.4	1.41
I25	04 Nov 2019	9	17.17	81.08	8.3	33.62	8.2	24.4	1.43
I25	12 Nov 2019	1	17.82	72.52	8.4	33.55	8.1	24.2	1.99
I25	12 Nov 2019	2	17.79	72.15	8.4	33.55	8.1	24.2	2.20
I25	12 Nov 2019	3	17.71	73.18	8.1	33.56	8.1	24.2	2.53
I25	12 Nov 2019	4	17.61	78.70	7.8	33.58	8.1	24.3	1.74
I25	12 Nov 2019	5	17.58	79.50	7.7	33.59	8.1	24.3	1.32

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I25	12 Nov 2019	6	17.55	79.24	7.7	33.59	8.1	24.3	1.31
I25	12 Nov 2019	7	17.53	79.15	7.7	33.59	8.1	24.3	1.40
I25	12 Nov 2019	8	17.48	78.35	7.7	33.59	8.1	24.3	1.38
I25	12 Nov 2019	9	17.50	77.69	7.7	33.59	8.1	24.3	1.35
I25	18 Nov 2019	1	16.27	74.62	7.8	33.62	8.1	24.6	0.97
I25	18 Nov 2019	2	16.04	74.02	7.7	33.62	8.1	24.7	1.20
I25	18 Nov 2019	3	15.82	71.55	7.5	33.62	8.1	24.7	1.53
I25	18 Nov 2019	4	15.64	70.61	7.1	33.61	8.1	24.8	1.79
I25	18 Nov 2019	5	15.35	68.87	6.8	33.61	8.1	24.8	2.19
I25	18 Nov 2019	6	15.28	70.90	6.7	33.60	8.1	24.8	2.14
I25	18 Nov 2019	7	15.26	74.92	6.7	33.59	8.1	24.8	1.71
I25	18 Nov 2019	8	15.25	76.16	6.6	33.60	8.0	24.8	1.41
I25	18 Nov 2019	9	15.21	77.16	6.5	33.60	8.0	24.8	1.12
I25	25 Nov 2019	1	16.70	64.76	8.1	33.41	8.1	24.4	1.72
I25	25 Nov 2019	2	16.64	64.78	8.1	33.41	8.1	24.4	1.99
I25	25 Nov 2019	3	16.57	63.87	8.1	33.42	8.1	24.4	2.72
I25	25 Nov 2019	4	16.55	63.16	8.0	33.42	8.1	24.4	3.24
I25	25 Nov 2019	5	16.60	63.79	7.8	33.45	8.1	24.4	3.10
I25	25 Nov 2019	6	16.64	63.97	7.5	33.50	8.1	24.4	2.67
I25	25 Nov 2019	7	16.60	62.17	7.5	33.51	8.1	24.5	2.44
I25	25 Nov 2019	8	16.60	54.88	7.4	33.52	8.1	24.5	2.31
I25	25 Nov 2019	9	16.60	40.12	7.3	33.51	8.1	24.5	2.22
I26	04 Nov 2019	1	17.24	78.99	8.6	33.64	8.2	24.4	0.92
I26	04 Nov 2019	2	17.22	78.99	8.6	33.64	8.2	24.4	0.98
I26	04 Nov 2019	3	17.13	78.54	8.6	33.64	8.2	24.4	1.08
I26	04 Nov 2019	4	17.12	78.41	8.6	33.63	8.2	24.4	1.21
I26	04 Nov 2019	5	17.11	78.48	8.6	33.63	8.2	24.4	1.35
I26	04 Nov 2019	6	17.09	78.52	8.5	33.63	8.2	24.4	1.49
I26	04 Nov 2019	7	17.07	78.43	8.6	33.63	8.2	24.4	1.69
I26	04 Nov 2019	8	17.05	78.35	8.5	33.63	8.2	24.5	1.90
I26	04 Nov 2019	9	17.02	77.67	8.2	33.64	8.2	24.5	2.17
I26	12 Nov 2019	1	18.00	74.17	8.6	33.55	8.2	24.2	1.74
I26	12 Nov 2019	2	17.85	75.36	8.4	33.59	8.2	24.2	1.59
I26	12 Nov 2019	3	17.65	79.55	8.1	33.60	8.2	24.3	1.23
I26	12 Nov 2019	4	17.58	78.68	8.0	33.60	8.1	24.3	1.12
I26	12 Nov 2019	5	17.51	78.43	8.0	33.60	8.1	24.3	1.25
I26	12 Nov 2019	6	17.50	78.57	8.0	33.60	8.1	24.3	1.35
I26	12 Nov 2019	7	17.49	78.18	7.9	33.60	8.1	24.3	1.43
I26	12 Nov 2019	8	17.49	77.32	7.9	33.60	8.1	24.3	1.46
I26	12 Nov 2019	9	17.49	77.03	7.9	33.60	8.1	24.3	1.46
I26	18 Nov 2019	1	16.60	78.02	8.1	33.64	8.2	24.6	0.93
I26	18 Nov 2019	2	16.36	77.35	8.1	33.63	8.2	24.6	1.16
I26	18 Nov 2019	3	16.18	75.55	8.0	33.62	8.1	24.6	1.53
I26	18 Nov 2019	4	15.91	73.34	7.7	33.63	8.1	24.7	1.90
I26	18 Nov 2019	5	15.35	74.25	7.2	33.63	8.1	24.8	2.92
I26	18 Nov 2019	6	14.97	75.93	6.8	33.61	8.1	24.9	3.40
I26	18 Nov 2019	7	14.95	77.25	6.6	33.59	8.0	24.9	1.46
I26	18 Nov 2019	8	14.94	77.41	6.6	33.60	8.0	24.9	0.99
I26	18 Nov 2019	9	14.92	77.77	6.6	33.60	8.0	24.9	0.89

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I26	25 Nov 2019	1	16.72	61.67	7.8	33.45	8.1	24.4	1.18
I26	25 Nov 2019	2	16.61	61.79	7.9	33.45	8.1	24.4	1.61
I26	25 Nov 2019	3	16.54	60.62	7.9	33.44	8.1	24.4	2.32
I26	25 Nov 2019	4	16.52	59.93	7.8	33.44	8.1	24.4	2.66
I26	25 Nov 2019	5	16.50	58.92	7.8	33.44	8.1	24.4	2.73
I26	25 Nov 2019	6	16.48	57.74	7.8	33.46	8.1	24.5	2.62
I26	25 Nov 2019	7	16.50	57.21	7.8	33.48	8.1	24.5	2.44
I26	25 Nov 2019	8	16.51	57.23	7.8	33.49	8.1	24.5	2.35
I26	25 Nov 2019	9	16.51	57.21	7.8	33.49	8.1	24.5	2.20
I32	04 Nov 2019	1	17.11	74.07	8.5	33.64	8.2	24.4	2.06
I32	04 Nov 2019	2	17.07	73.54	8.5	33.65	8.2	24.5	1.95
I32	04 Nov 2019	3	16.99	70.92	8.5	33.65	8.2	24.5	2.82
I32	04 Nov 2019	4	16.98	70.92	8.6	33.65	8.2	24.5	3.71
I32	04 Nov 2019	5	16.97	70.78	8.5	33.65	8.2	24.5	4.25
I32	04 Nov 2019	6	16.96	71.09	8.5	33.66	8.2	24.5	4.77
I32	04 Nov 2019	7	16.93	71.67	8.5	33.66	8.2	24.5	4.90
I32	04 Nov 2019	8	16.88	70.96	8.5	33.66	8.2	24.5	5.44
I32	04 Nov 2019	9	16.85	70.40	8.5	33.66	8.2	24.5	6.14
I32	04 Nov 2019	10	16.80	70.66	8.5	33.66	8.2	24.5	6.04
I32	12 Nov 2019	1	17.90	77.29	8.4	33.58	8.2	24.2	1.26
I32	12 Nov 2019	2	17.85	77.15	8.3	33.58	8.2	24.2	1.38
I32	12 Nov 2019	3	17.76	75.82	8.4	33.58	8.2	24.2	1.86
I32	12 Nov 2019	4	17.72	74.84	8.3	33.58	8.2	24.2	2.45
I32	12 Nov 2019	5	17.70	75.77	8.3	33.58	8.2	24.3	2.48
I32	12 Nov 2019	6	17.65	78.38	8.2	33.59	8.2	24.3	2.17
I32	12 Nov 2019	7	17.61	77.46	8.1	33.59	8.1	24.3	2.01
I32	12 Nov 2019	8	17.58	70.32	7.9	33.59	8.1	24.3	1.98
I32	12 Nov 2019	9	17.54	67.73	7.8	33.59	8.1	24.3	1.98
I32	12 Nov 2019	10	17.52	55.30	7.7	33.59	8.1	24.3	1.98
I32	18 Nov 2019	1	16.88	78.66	8.1	33.62	8.2	24.5	1.05
I32	18 Nov 2019	2	16.43	77.58	8.1	33.66	8.2	24.6	1.05
I32	18 Nov 2019	3	16.36	74.33	8.1	33.64	8.1	24.6	1.25
I32	18 Nov 2019	4	16.05	69.52	7.9	33.66	8.1	24.7	1.75
I32	18 Nov 2019	5	15.64	60.26	7.5	33.66	8.1	24.8	1.94
I32	18 Nov 2019	6	15.34	60.23	7.1	33.65	8.1	24.9	2.03
I32	18 Nov 2019	7	15.11	62.54	6.8	33.62	8.0	24.9	2.23
I32	18 Nov 2019	8	14.95	62.49	6.5	33.61	8.0	24.9	1.99
I32	18 Nov 2019	9	14.86	64.36	6.4	33.60	8.0	24.9	1.68
I32	18 Nov 2019	10	14.86	54.54	6.3	33.60	8.0	24.9	1.56
I32	25 Nov 2019	1	16.64	59.23	8.1	33.52	8.1	24.5	1.25
I32	25 Nov 2019	2	16.55	58.78	8.2	33.52	8.1	24.5	1.56
I32	25 Nov 2019	3	16.49	55.95	8.2	33.52	8.2	24.5	3.90
I32	25 Nov 2019	4	16.45	52.82	8.2	33.52	8.1	24.5	7.08
I32	25 Nov 2019	5	16.43	52.87	8.1	33.52	8.1	24.5	7.10
I32	25 Nov 2019	6	16.41	54.01	8.0	33.52	8.1	24.5	5.39
I32	25 Nov 2019	7	16.39	54.22	7.9	33.52	8.1	24.5	4.25
I32	25 Nov 2019	8	16.35	53.95	7.8	33.52	8.1	24.5	3.40
I32	25 Nov 2019	9	16.33	53.11	7.8	33.52	8.1	24.5	3.01
I32	25 Nov 2019	10	16.30	53.00	7.9	33.52	8.1	24.5	2.65
I39	04 Nov 2019	1	17.06	79.18	8.6	33.63	8.2	24.4	1.06

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I39	04 Nov 2019	2	17.05	79.09	8.5	33.63	8.2	24.4	1.13
I39	04 Nov 2019	3	17.03	78.78	8.5	33.63	8.2	24.5	1.31
I39	04 Nov 2019	4	17.02	78.67	8.5	33.62	8.2	24.5	1.54
I39	04 Nov 2019	5	17.02	78.65	8.5	33.63	8.2	24.5	1.75
I39	04 Nov 2019	6	17.01	78.61	8.5	33.62	8.2	24.5	2.03
I39	04 Nov 2019	7	17.01	78.60	8.5	33.62	8.2	24.5	2.23
I39	04 Nov 2019	8	17.00	78.60	8.5	33.62	8.2	24.5	2.41
I39	04 Nov 2019	9	17.00	78.47	8.5	33.62	8.2	24.5	2.51
I39	04 Nov 2019	10	17.00	78.50	8.5	33.62	8.2	24.5	2.62
I39	04 Nov 2019	11	16.98	78.09	8.4	33.63	8.2	24.5	3.14
I39	04 Nov 2019	12	16.92	77.79	8.2	33.63	8.2	24.5	3.65
I39	04 Nov 2019	13	16.84	77.95	8.0	33.63	8.2	24.5	3.86
I39	04 Nov 2019	14	16.75	78.27	7.8	33.62	8.2	24.5	3.83
I39	04 Nov 2019	15	16.67	78.47	7.7	33.62	8.1	24.5	3.73
I39	04 Nov 2019	16	16.60	79.03	7.5	33.63	8.1	24.6	3.49
I39	04 Nov 2019	17	16.37	80.72	7.3	33.62	8.1	24.6	2.53
I39	04 Nov 2019	18	15.93	83.10	7.0	33.62	8.1	24.7	1.27
I39	12 Nov 2019	1	17.91	84.09	8.3	33.61	8.2	24.2	0.70
I39	12 Nov 2019	2	17.91	84.12	8.3	33.61	8.2	24.2	0.71
I39	12 Nov 2019	3	17.91	84.25	8.3	33.61	8.2	24.2	0.76
I39	12 Nov 2019	4	17.90	84.13	8.3	33.61	8.2	24.2	0.85
I39	12 Nov 2019	5	17.88	84.06	8.3	33.61	8.2	24.2	0.94
I39	12 Nov 2019	6	17.77	83.72	8.3	33.61	8.2	24.3	1.12
I39	12 Nov 2019	7	17.73	83.48	8.3	33.60	8.2	24.3	1.36
I39	12 Nov 2019	8	17.71	83.10	8.3	33.60	8.2	24.3	1.50
I39	12 Nov 2019	9	17.69	83.20	8.4	33.60	8.2	24.3	1.61
I39	12 Nov 2019	10	17.68	83.19	8.4	33.60	8.2	24.3	1.66
I39	12 Nov 2019	11	17.66	83.26	8.3	33.60	8.2	24.3	1.73
I39	12 Nov 2019	12	17.55	83.03	8.3	33.61	8.2	24.3	1.84
I39	12 Nov 2019	13	17.41	81.93	8.3	33.60	8.1	24.3	2.15
I39	12 Nov 2019	14	17.40	81.69	8.2	33.60	8.1	24.3	2.23
I39	12 Nov 2019	15	17.34	81.71	8.2	33.60	8.1	24.4	1.88
I39	12 Nov 2019	16	17.30	81.75	8.1	33.60	8.1	24.4	1.79
I39	12 Nov 2019	17	17.20	81.61	8.1	33.60	8.1	24.4	1.75
I39	12 Nov 2019	18	17.09	81.32	8.0	33.60	8.1	24.4	1.71
I39	18 Nov 2019	1	16.56	79.80	8.1	33.62	8.2	24.6	1.01
I39	18 Nov 2019	2	16.52	79.76	8.2	33.63	8.2	24.6	1.00
I39	18 Nov 2019	3	16.49	79.54	8.2	33.62	8.2	24.6	1.14
I39	18 Nov 2019	4	16.47	79.31	8.2	33.62	8.2	24.6	1.34
I39	18 Nov 2019	5	16.46	79.17	8.2	33.62	8.2	24.6	1.53
I39	18 Nov 2019	6	16.41	78.90	8.1	33.62	8.2	24.6	2.04
I39	18 Nov 2019	7	16.12	78.10	7.7	33.64	8.2	24.7	3.39
I39	18 Nov 2019	8	15.55	78.70	7.2	33.62	8.1	24.8	3.15
I39	18 Nov 2019	9	15.30	81.81	7.0	33.60	8.1	24.8	2.34
I39	18 Nov 2019	10	15.15	83.30	7.0	33.60	8.1	24.9	1.90
I39	18 Nov 2019	11	15.04	83.81	6.9	33.60	8.1	24.9	1.55
I39	18 Nov 2019	12	14.93	84.24	6.8	33.60	8.1	24.9	1.28
I39	18 Nov 2019	13	14.73	84.95	6.8	33.60	8.1	24.9	0.95
I39	18 Nov 2019	14	14.61	85.65	6.7	33.60	8.1	25.0	0.77
I39	18 Nov 2019	15	14.46	85.82	6.6	33.60	8.0	25.0	0.71
I39	18 Nov 2019	16	14.41	84.92	6.6	33.60	8.0	25.0	0.66
I39	18 Nov 2019	17	14.38	84.26	6.5	33.60	8.0	25.0	0.66
I39	18 Nov 2019	18	14.35	83.73	6.5	33.61	8.0	25.0	0.63

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I39	25 Nov 2019	1	16.92	80.33	8.1	33.56	8.2	24.4	1.55
I39	25 Nov 2019	2	16.92	80.40	8.1	33.56	8.2	24.4	1.51
I39	25 Nov 2019	3	16.93	80.38	8.1	33.56	8.2	24.4	1.41
I39	25 Nov 2019	4	16.92	80.47	8.1	33.56	8.2	24.4	1.54
I39	25 Nov 2019	5	16.92	80.41	8.1	33.56	8.2	24.4	1.74
I39	25 Nov 2019	6	16.92	80.36	8.1	33.56	8.2	24.4	1.84
I39	25 Nov 2019	7	16.92	80.46	8.1	33.56	8.2	24.4	1.96
I39	25 Nov 2019	8	16.92	80.44	8.1	33.56	8.2	24.4	2.06
I39	25 Nov 2019	9	16.91	80.47	8.1	33.56	8.2	24.4	2.14
I39	25 Nov 2019	10	16.91	80.43	8.1	33.56	8.2	24.4	2.14
I39	25 Nov 2019	11	16.91	80.55	8.1	33.56	8.2	24.4	2.16
I39	25 Nov 2019	12	16.91	80.56	8.1	33.56	8.2	24.4	2.16
I39	25 Nov 2019	13	16.91	80.61	8.1	33.56	8.2	24.4	2.17
I39	25 Nov 2019	14	16.91	80.63	8.1	33.56	8.2	24.4	2.24
I39	25 Nov 2019	15	16.91	80.77	8.1	33.56	8.2	24.4	2.22
I39	25 Nov 2019	16	16.89	80.60	8.0	33.56	8.2	24.4	2.20
I39	25 Nov 2019	17	16.84	80.37	7.9	33.56	8.2	24.4	2.11
I39	25 Nov 2019	18	16.75	79.15	7.8	33.56	8.1	24.5	1.96
I40	04 Nov 2019	1	17.33	77.32	8.7	33.62	8.2	24.4	1.24
I40	04 Nov 2019	2	17.31	77.60	8.6	33.62	8.2	24.4	1.17
I40	04 Nov 2019	3	17.27	78.50	8.6	33.62	8.2	24.4	1.20
I40	04 Nov 2019	4	17.23	78.68	8.6	33.62	8.2	24.4	1.39
I40	04 Nov 2019	5	17.22	78.71	8.6	33.62	8.2	24.4	1.55
I40	04 Nov 2019	6	17.20	78.52	8.6	33.62	8.2	24.4	1.88
I40	04 Nov 2019	7	17.19	78.18	8.6	33.61	8.2	24.4	2.13
I40	04 Nov 2019	8	17.18	78.06	8.6	33.61	8.2	24.4	2.50
I40	04 Nov 2019	9	17.16	77.75	8.6	33.61	8.2	24.4	2.71
I40	04 Nov 2019	10	17.11	77.24	8.4	33.62	8.2	24.4	2.95
I40	12 Nov 2019	1	17.87	72.47	8.3	33.57	8.1	24.2	1.62
I40	12 Nov 2019	2	17.85	72.24	8.3	33.57	8.1	24.2	1.63
I40	12 Nov 2019	3	17.83	72.08	8.4	33.57	8.1	24.2	1.85
I40	12 Nov 2019	4	17.81	72.41	8.5	33.57	8.2	24.2	2.36
I40	12 Nov 2019	5	17.71	73.95	8.5	33.59	8.2	24.3	2.87
I40	12 Nov 2019	6	17.62	76.47	8.5	33.58	8.2	24.3	3.30
I40	12 Nov 2019	7	17.54	77.11	8.4	33.58	8.1	24.3	3.28
I40	12 Nov 2019	8	17.52	77.21	8.3	33.58	8.1	24.3	3.22
I40	12 Nov 2019	9	17.50	76.57	8.2	33.58	8.1	24.3	3.13
I40	12 Nov 2019	10	17.41	72.37	8.0	33.59	8.1	24.3	2.97
I40	18 Nov 2019	1	15.57	68.88	5.6	33.47	8.1	24.7	2.27
I40	18 Nov 2019	2	15.51	68.72	6.5	33.60	8.1	24.8	1.99
I40	18 Nov 2019	3	15.45	67.79	6.8	33.61	8.1	24.8	2.00
I40	18 Nov 2019	4	15.32	67.82	7.0	33.66	8.1	24.9	2.02
I40	18 Nov 2019	5	15.15	65.73	6.8	33.64	8.0	24.9	1.96
I40	18 Nov 2019	6	15.09	63.22	6.6	33.61	8.0	24.9	2.11
I40	18 Nov 2019	7	15.08	60.45	6.4	33.60	8.0	24.9	2.59
I40	18 Nov 2019	8	15.07	54.26	6.4	33.60	8.0	24.9	2.86
I40	18 Nov 2019	9	14.98	56.64	6.4	33.61	8.0	24.9	2.58
I40	18 Nov 2019	10	14.89	61.93	6.5	33.61	8.0	24.9	2.12
I40	25 Nov 2019	1	16.64	72.10	8.2	33.46	8.2	24.4	1.29
I40	25 Nov 2019	2	16.58	72.00	8.2	33.46	8.2	24.4	1.39

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I40	25 Nov 2019	3	16.57	71.32	8.2	33.46	8.2	24.4	1.65
I40	25 Nov 2019	4	16.55	70.92	8.2	33.46	8.2	24.4	1.95
I40	25 Nov 2019	5	16.55	70.35	8.2	33.47	8.2	24.4	2.35
I40	25 Nov 2019	6	16.55	69.72	8.2	33.47	8.2	24.4	2.68
I40	25 Nov 2019	7	16.53	69.41	8.2	33.47	8.2	24.4	2.78
I40	25 Nov 2019	8	16.51	68.31	8.2	33.47	8.2	24.5	2.88
I40	25 Nov 2019	9	16.53	61.25	8.1	33.47	8.1	24.5	2.84
I40	25 Nov 2019	10	16.57	44.84	7.9	33.49	8.1	24.5	2.72

NA = not available

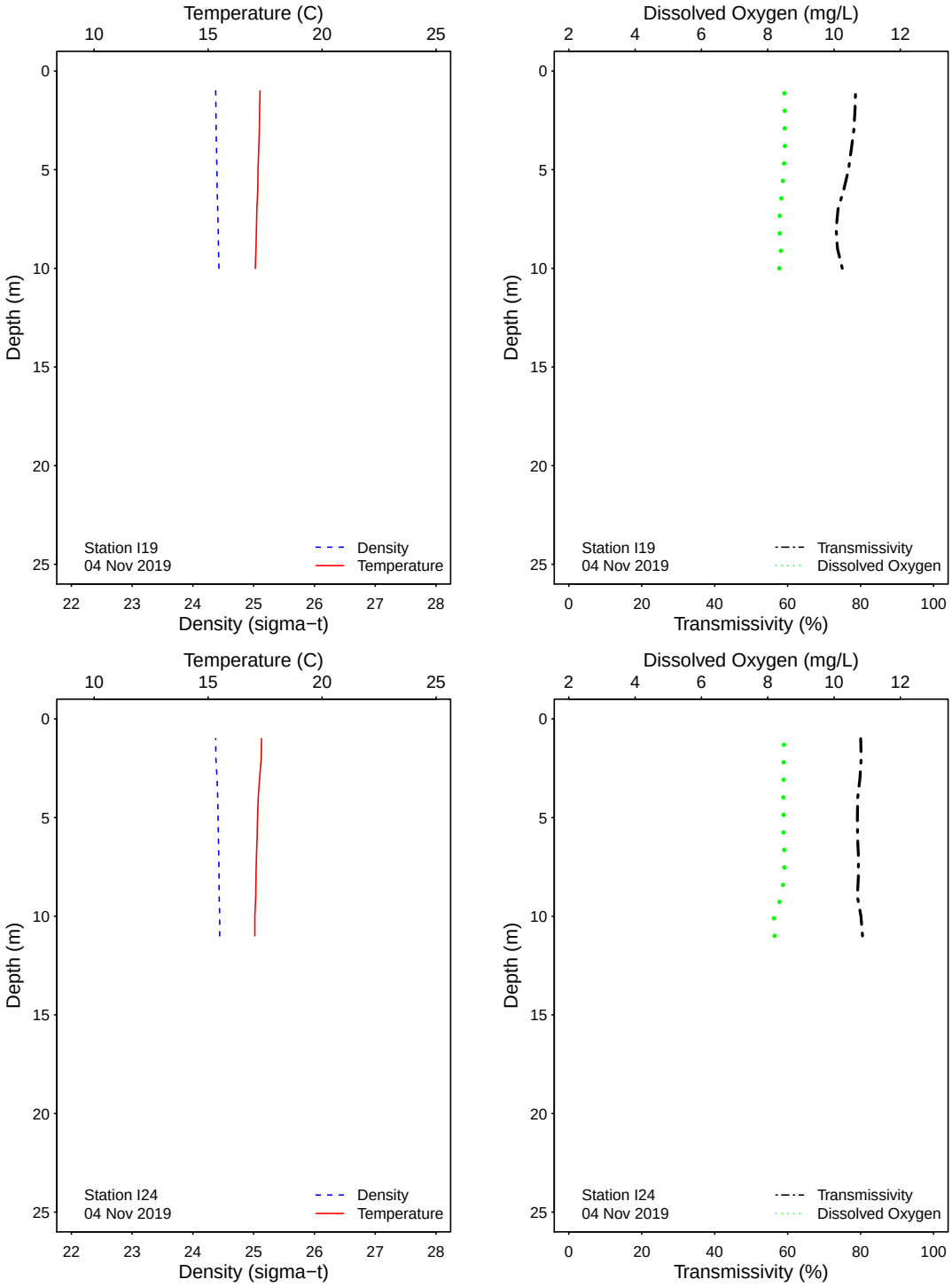

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

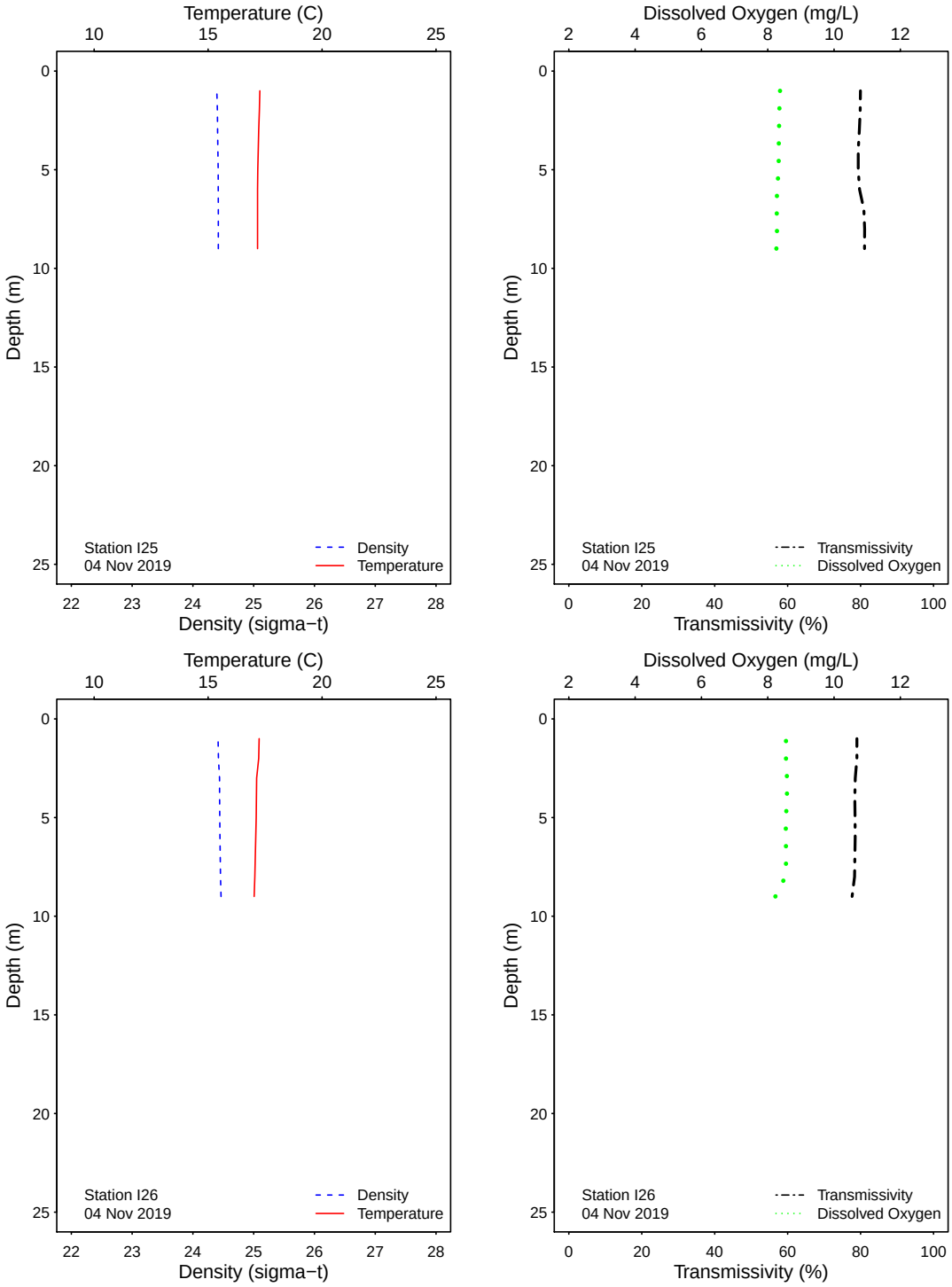

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

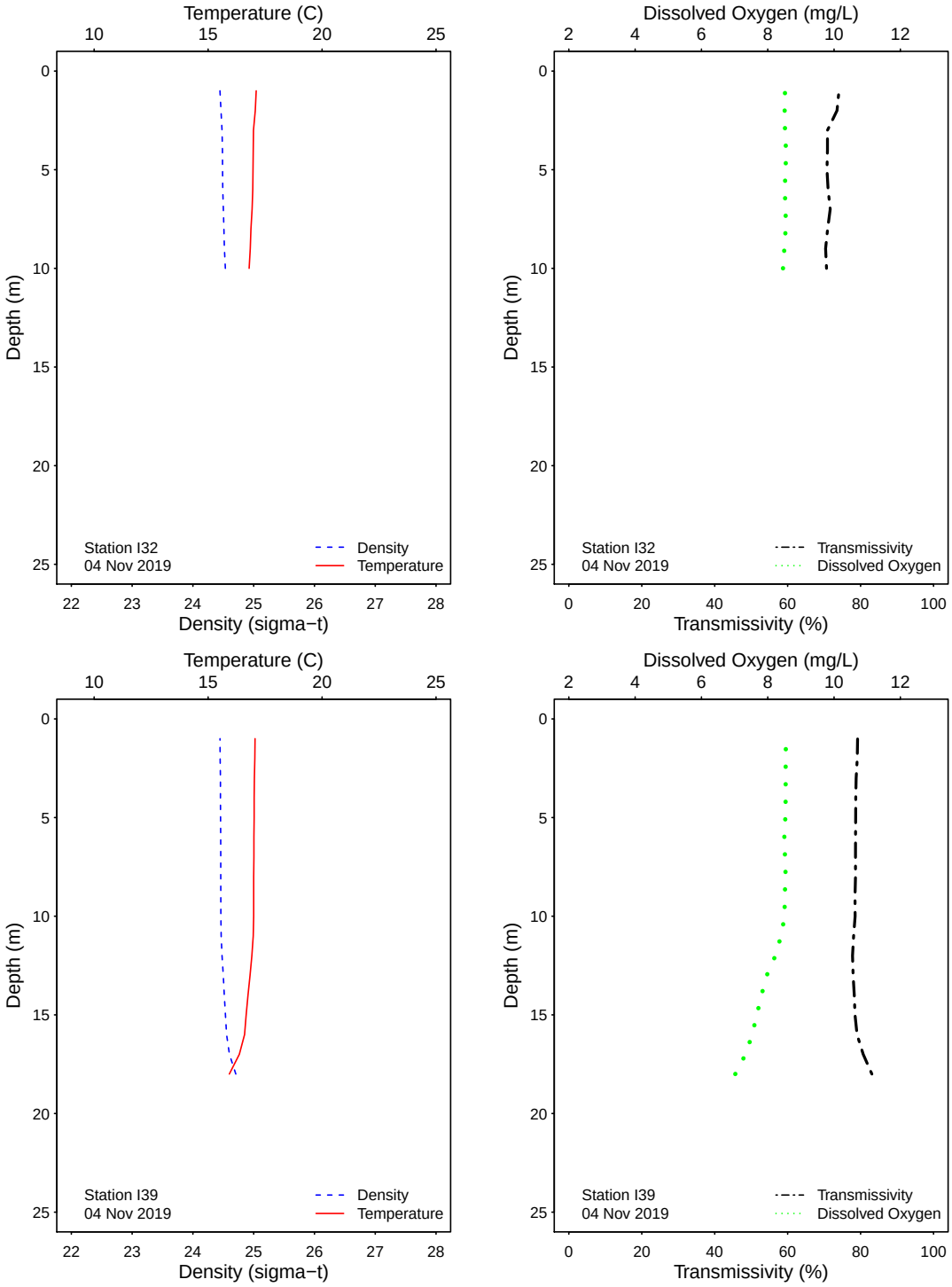

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

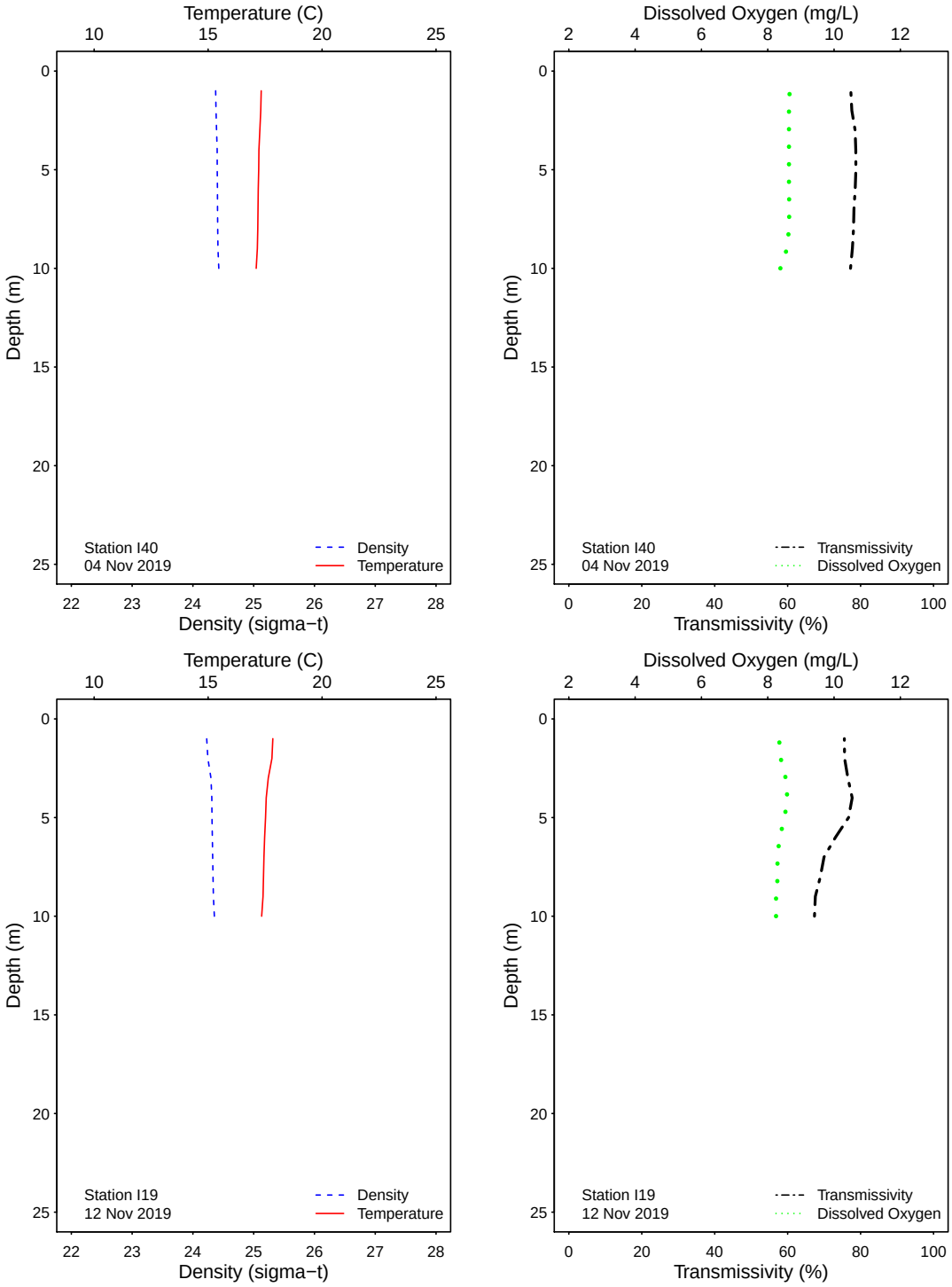

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

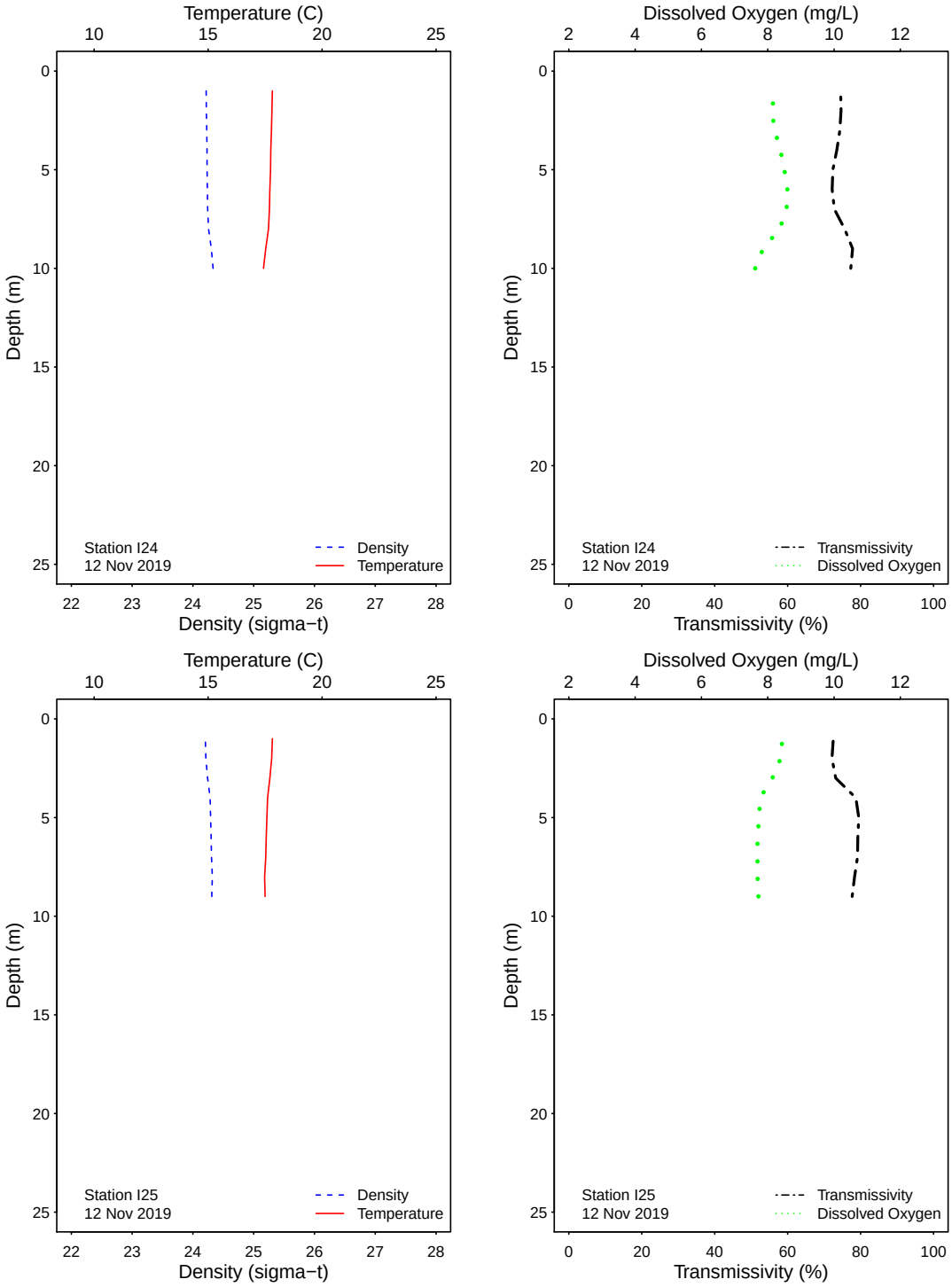

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

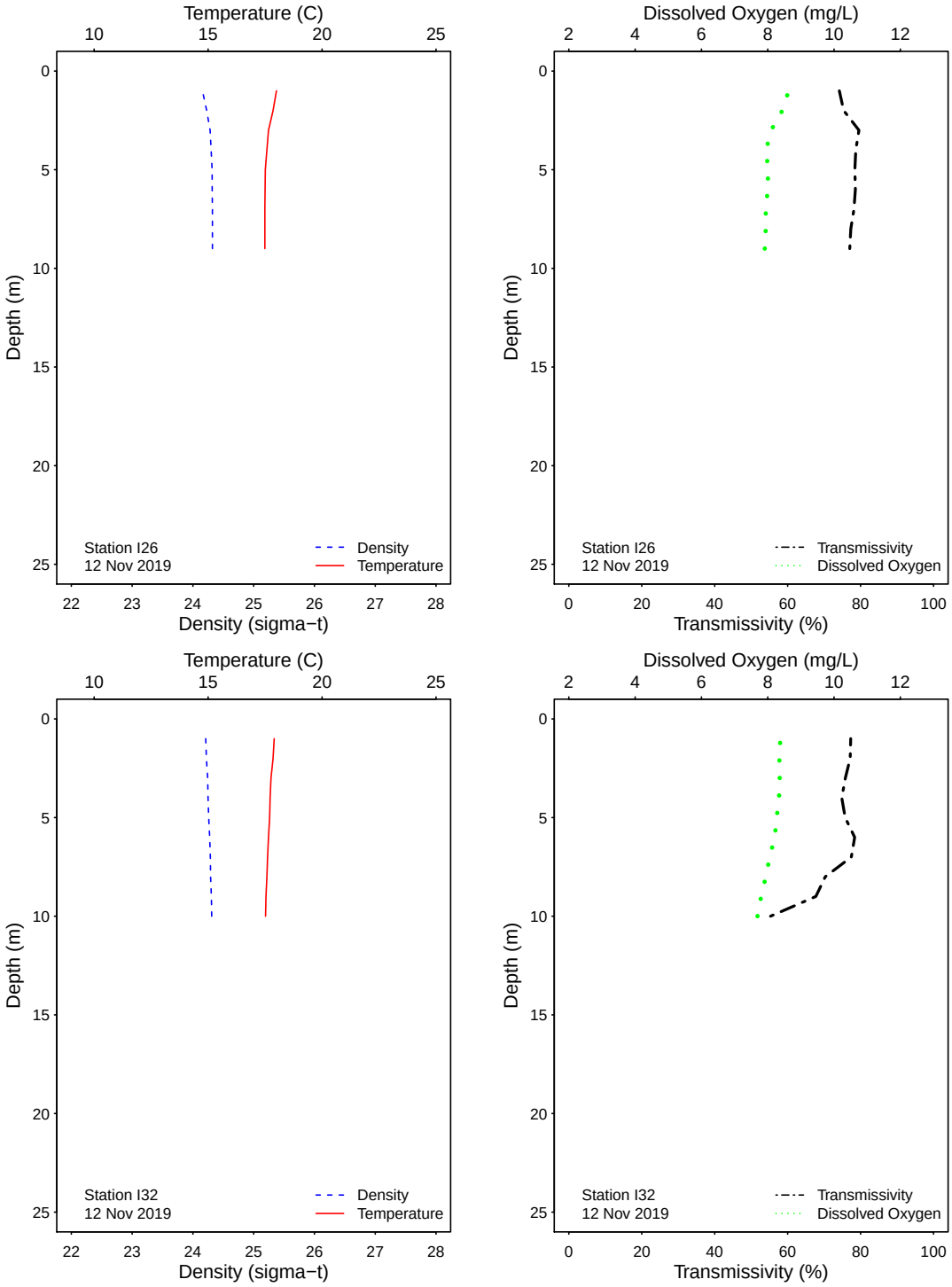

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

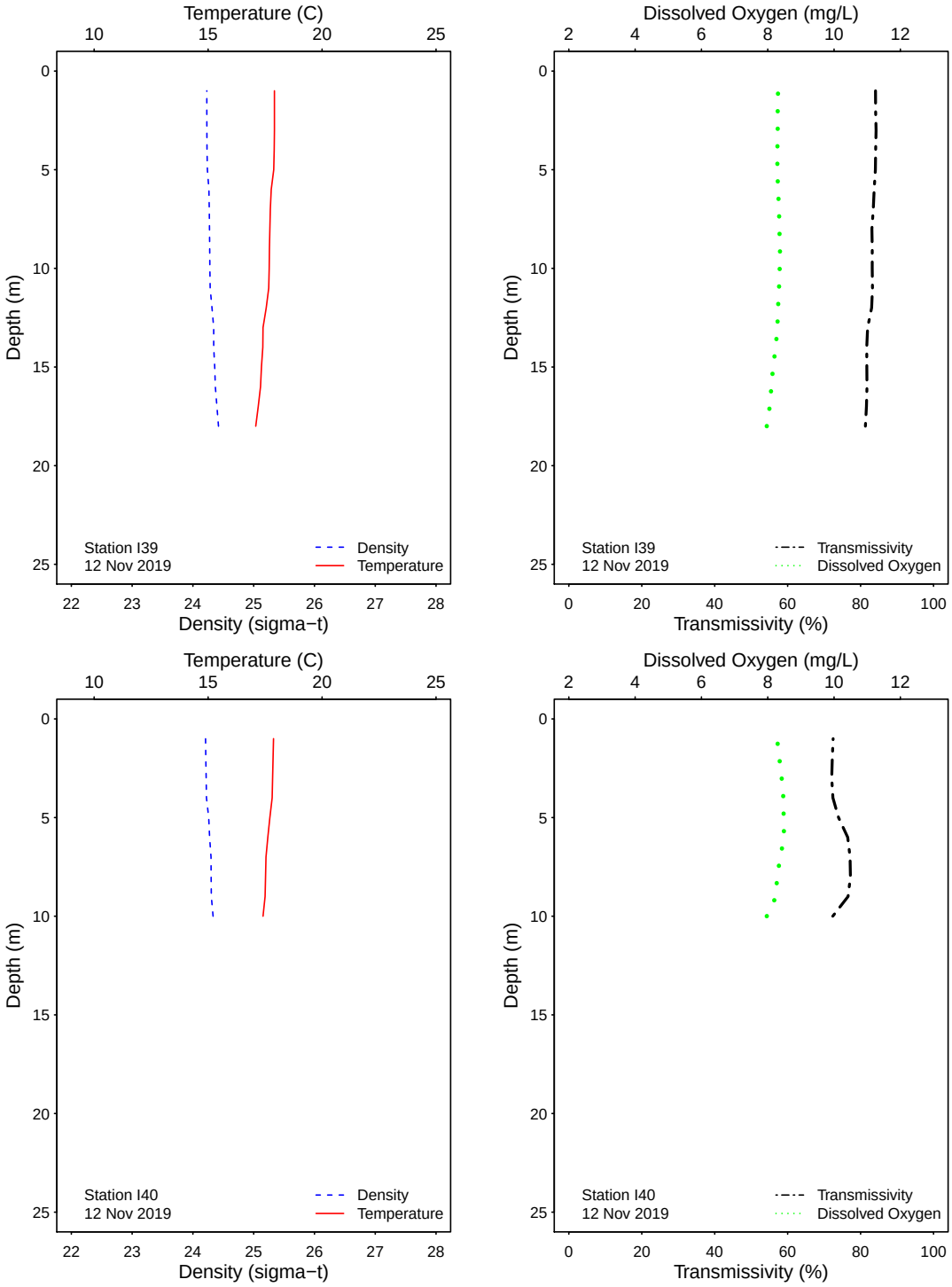

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

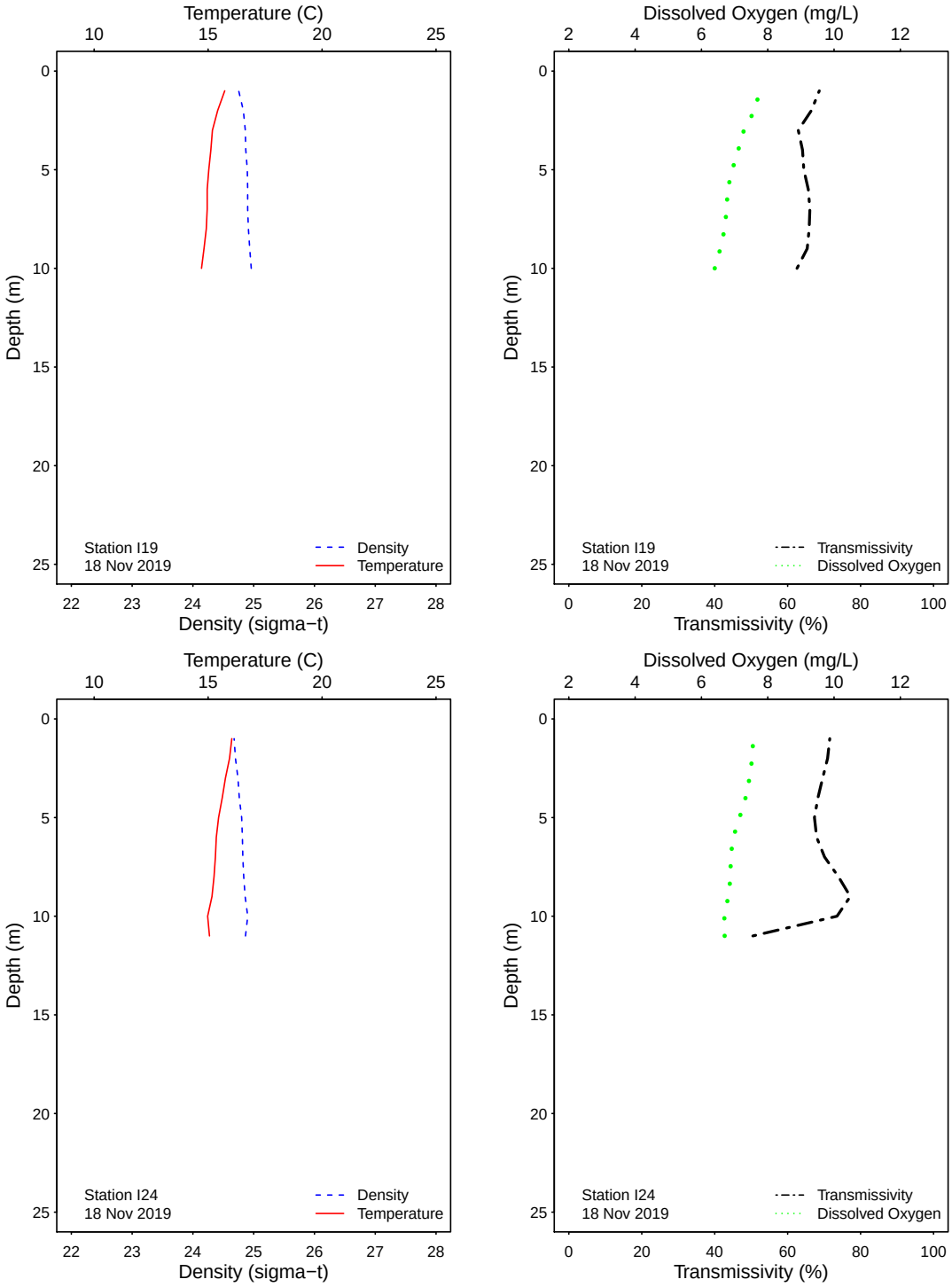

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

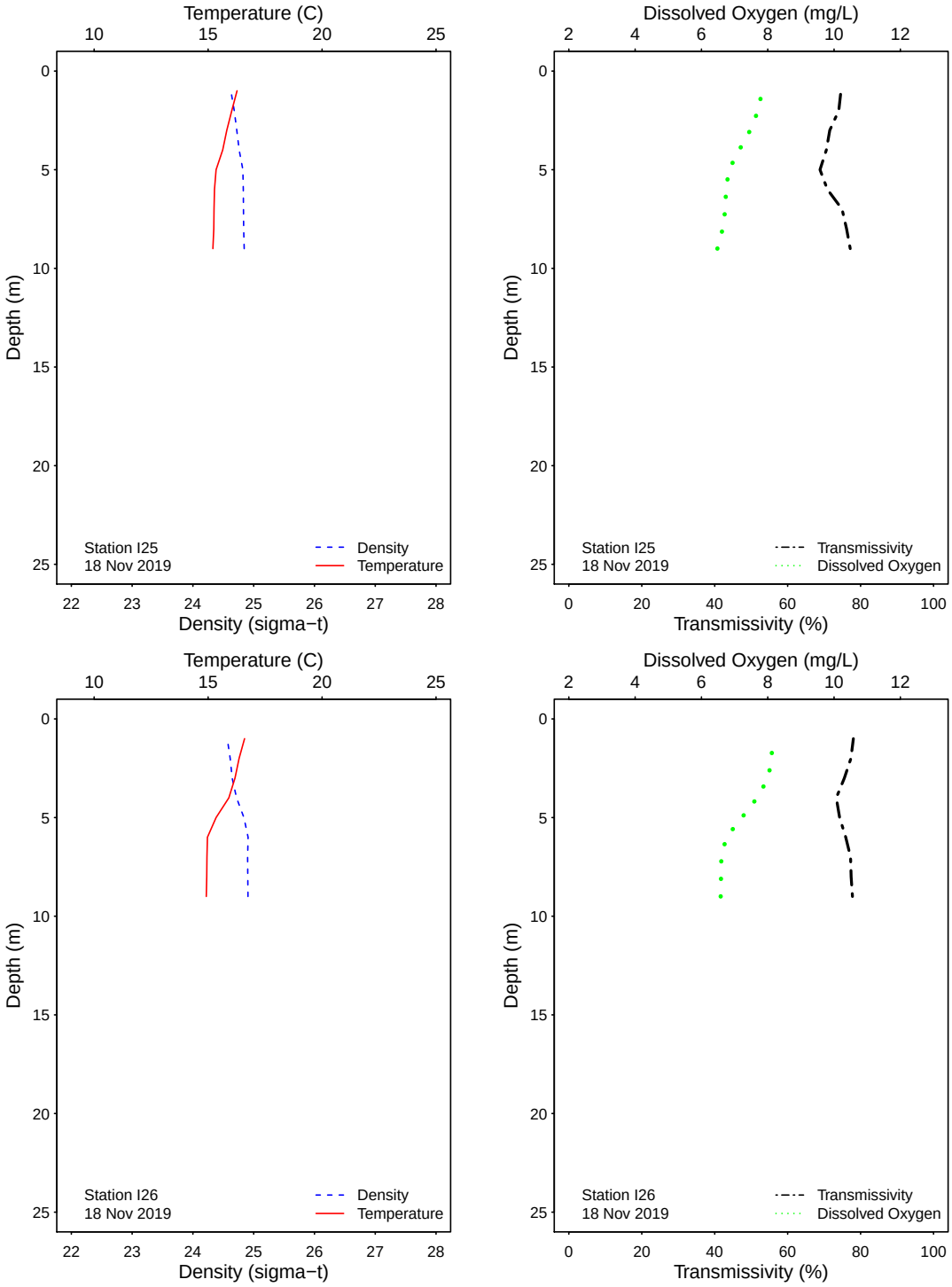

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

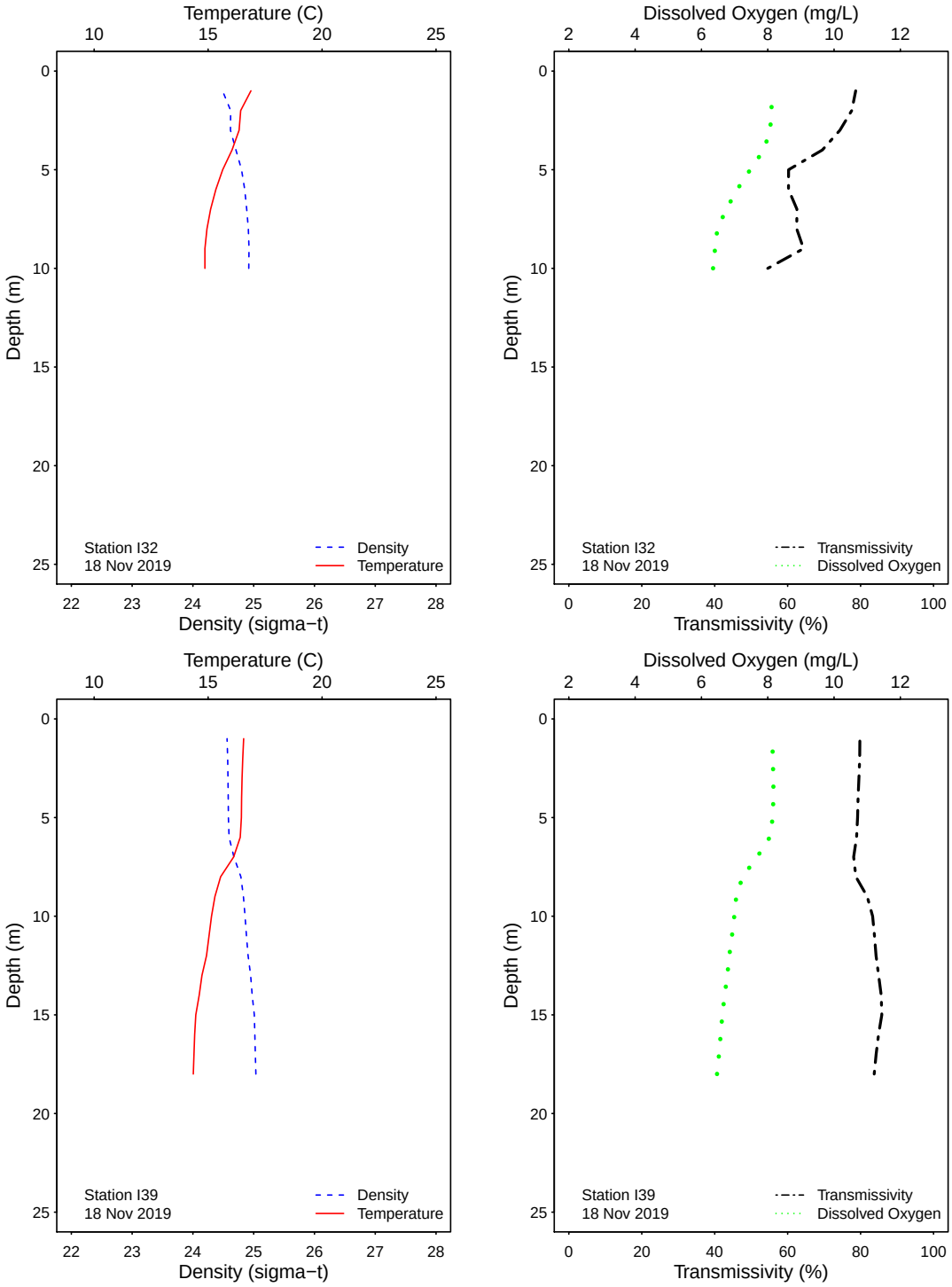

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

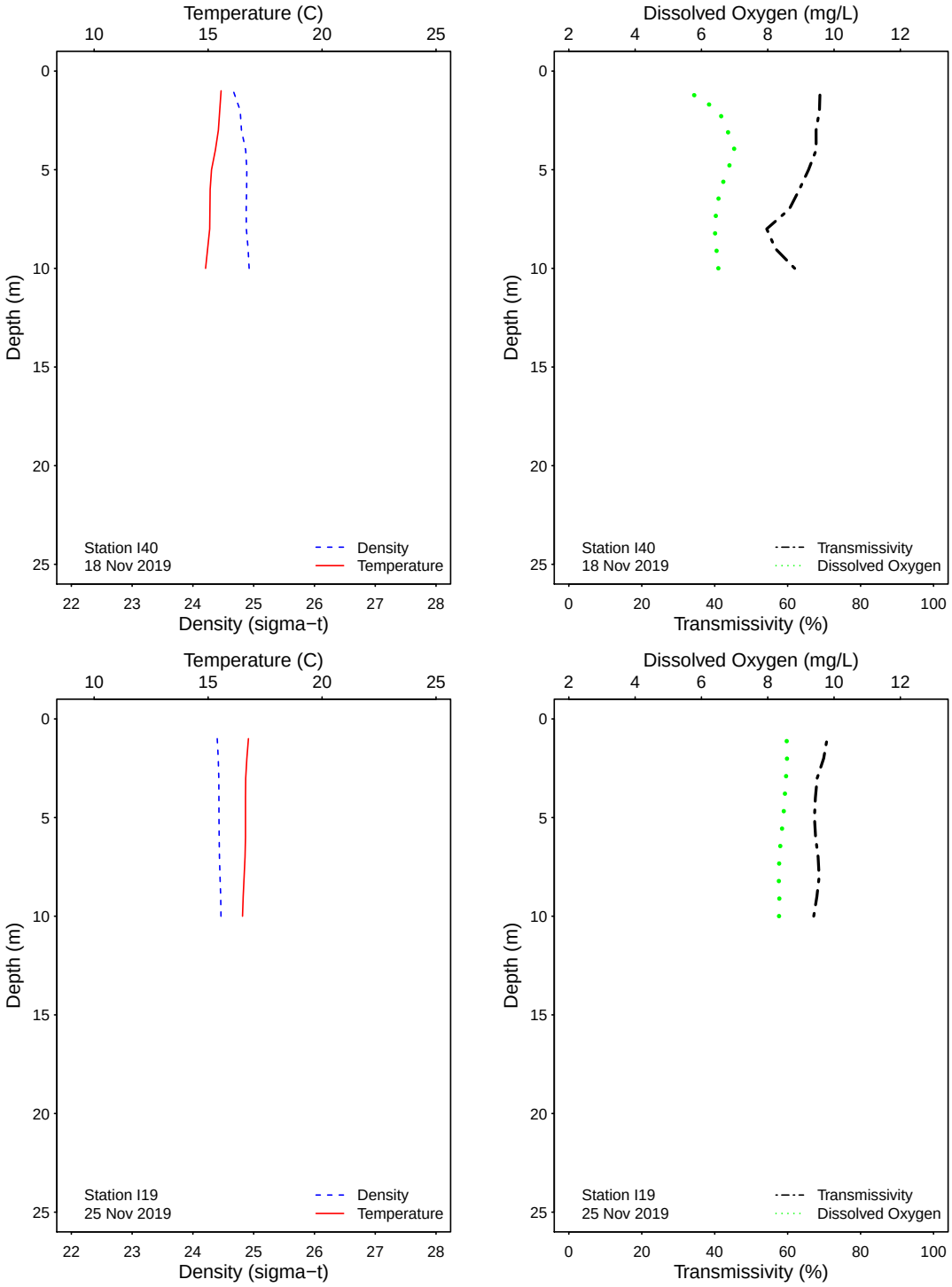

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

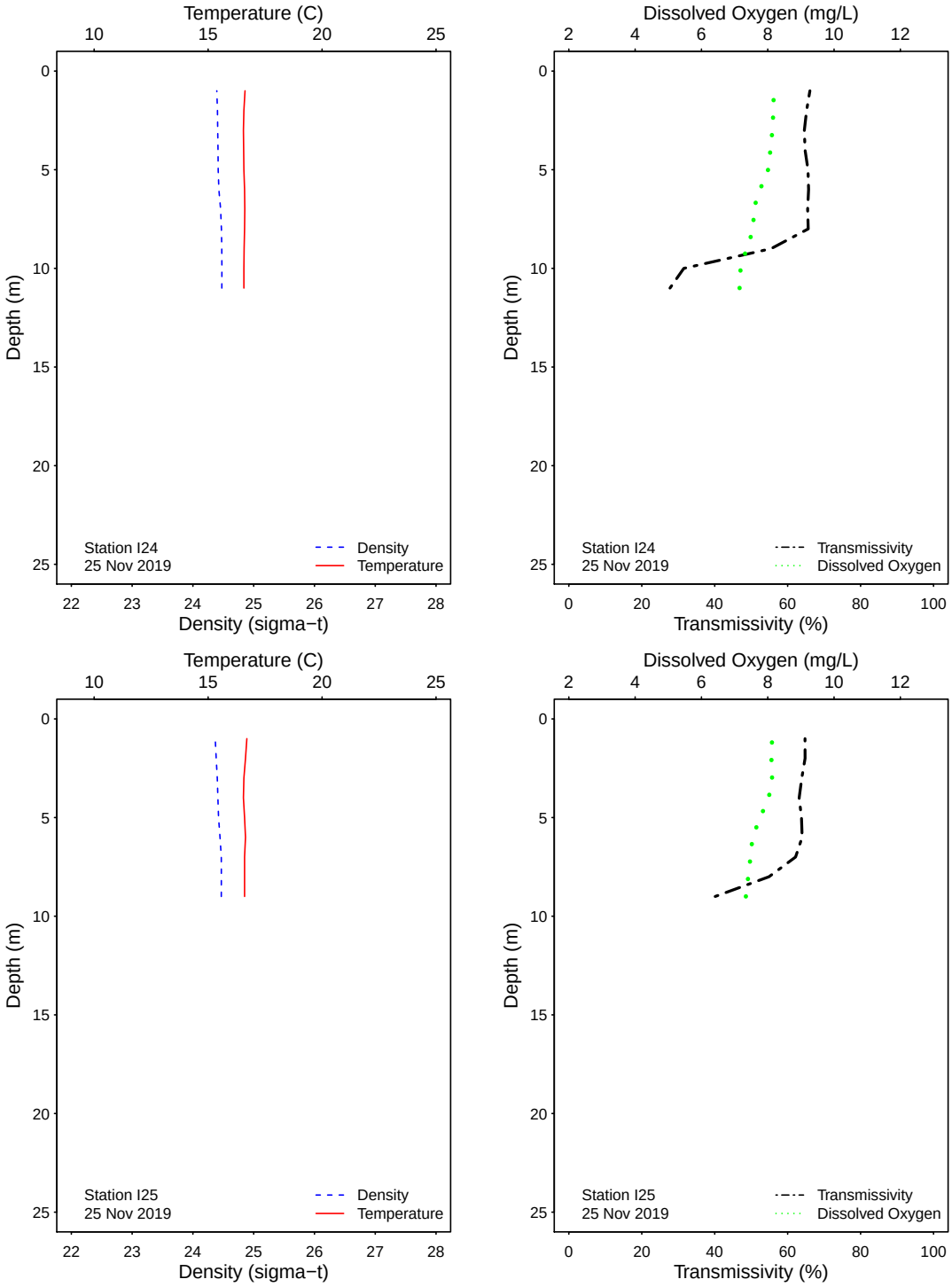

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

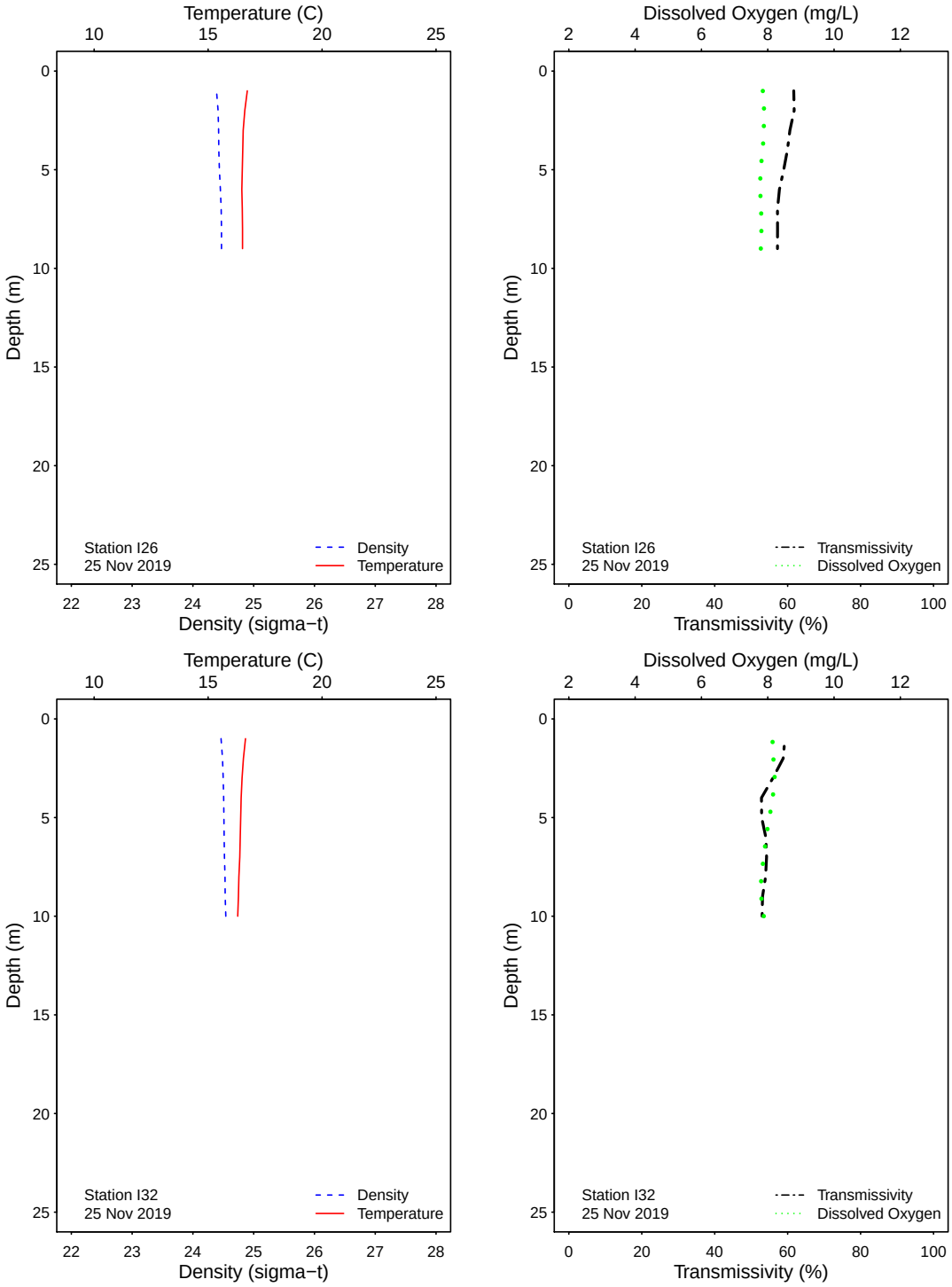

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

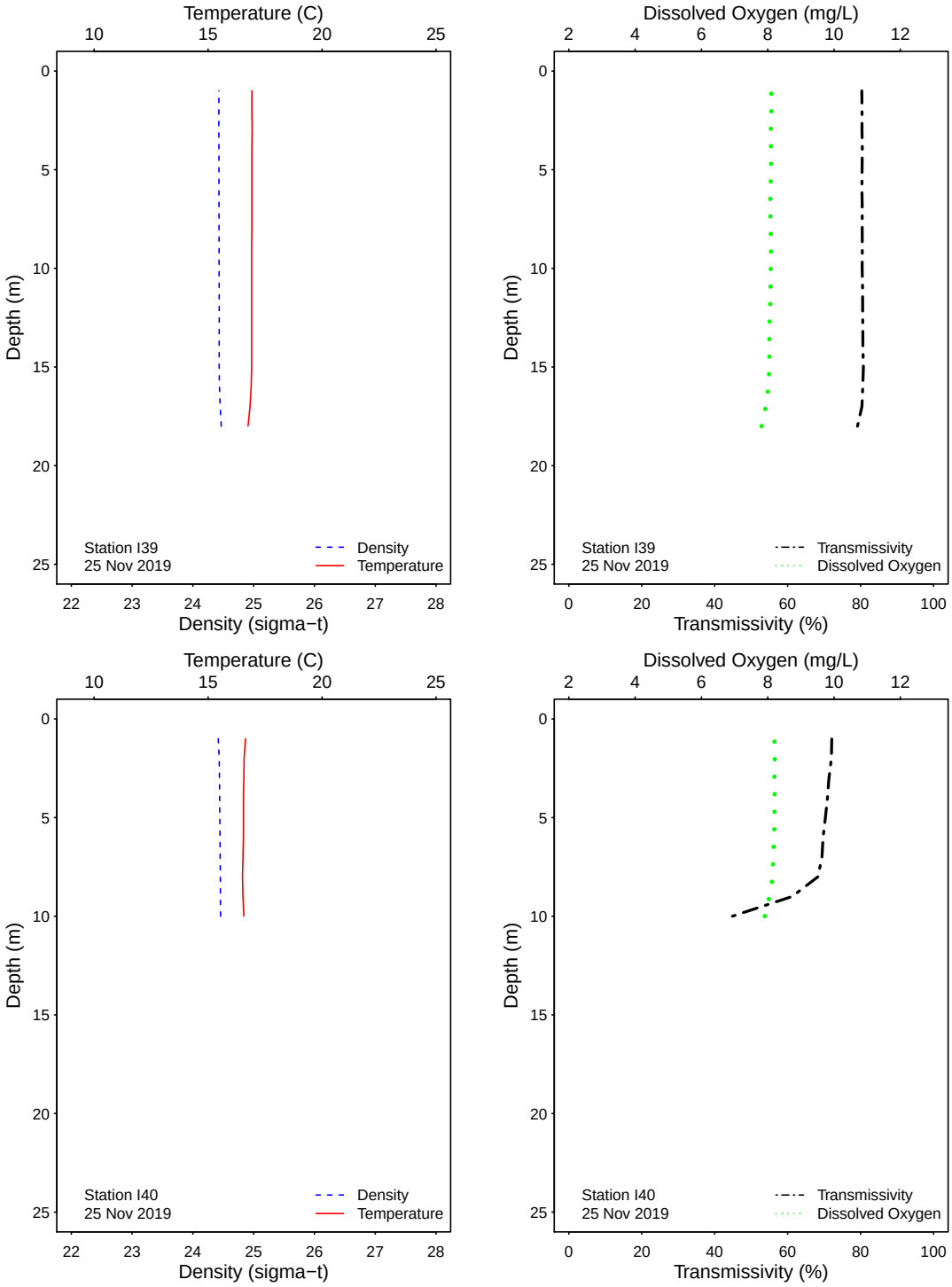

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

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Offshore Stations

Table 4.1

Summary of compliance with the Ocean Plan's Single Sample Maximum standard for total coliform bacteria at the SBOO offshore stations within three nautical miles of shore. Total coliform density shall not exceed 10,000 CFU/100 mL.

Date	I12	I14	I16	I18	I22	I23	I33	I36	I37	I38
14 Nov 2019	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
15 Nov 2019	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

Table 4.2

Summary of compliance with the Ocean Plan's Single Sample Maximum standard for fecal coliform bacteria at the SBOO offshore stations within three nautical miles of shore. Fecal coliform density shall not exceed 400 CFU/100 mL.

Date	I12	I14	I16	I18	I22	I23	I33	I36	I37	I38
14 Nov 2019	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
15 Nov 2019	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

Table 4.3

Summary of compliance with the Ocean Plan's Single Sample Maximum standard for *Enterococcus* bacteria at the SBOO offshore stations within three nautical miles of shore. *Enterococcus* density shall not exceed 104 CFU/100 mL.

Date	I12	I14	I16	I18	I22	I23	I33	I36	I37	I38
14 Nov 2019	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
15 Nov 2019	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

Table 4.4

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

Date	I12	I14	I16	I18	I22	I23	I33	I36	I37	I38
14 Nov 2019	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
15 Nov 2019	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

Table 4.5

Summary of water quality parameters at the SBOO offshore stations for each sample date. Densities of total coliform (Total), fecal coliform (Fecal) and *Enterococcus* (Entero) bacteria are reported as CFU/100 mL; the fecal:total coliform ratio (F:T) is unitless; values for temperature (Temp,°C), transmissivity (XMS, %), dissolved oxygen (DO, mg/L), salinity (Sal, ppt) and pH were extracted from CTD profile data for depths closest to those at which the bacteriological samples were collected. Comments follow the data summary.

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
I10	13 Nov 2019	1048	2	<2	<2	<2	1.00	17.7	77.66	8.5	33.59	8.2
I10	13 Nov 2019	1048	12	<2	<2	<2	1.00	16.5	82.19	7.9	33.59	8.1
I10	13 Nov 2019	1048	18	2e	<2	<2	1.00	16.5	82.26	7.7	33.59	8.1
I11	13 Nov 2019	1037	2	<2	<2	<2	1.00	17.5	76.31	8.4	33.59	8.1
I11	13 Nov 2019	1037	6	<2	<2	<2	1.00	17.3	74.81	8.4	33.58	8.1
I11	13 Nov 2019	1037	11	<2	<2	<2	1.00	16.7	79.67	7.7	33.59	8.1
I12	14 Nov 2019	1028	2	2e	<2	<2	1.00	17.9	83.12	8.2	33.60	8.2
I12	14 Nov 2019	1028	18	30e	<2	<2	0.07	16.5	83.95	7.9	33.48	8.1
I12	14 Nov 2019	1028	27	2e	<2	2e	1.00	15.6	84.72	7.6	33.59	8.1
I13	14 Nov 2019	1055	2	<2	<2	<2	1.00	18.0	83.34	8.3	33.61	8.2
I13	14 Nov 2019	1055	18	<2	<2	<2	1.00	15.6	83.76	7.7	33.59	8.1
I13	14 Nov 2019	1055	37	<2	<2	<2	1.00	15.2	85.88	7.3	33.60	8.1
I14	14 Nov 2019	1117	2	<2	<2	<2	1.00	17.9	83.63	8.2	33.61	8.2
I14	14 Nov 2019	1117	18	<2	<2	<2	1.00	16.8	82.87	8.0	33.61	8.2
I14	14 Nov 2019	1117	27	<2	<2	<2	1.00	15.5	84.50	7.6	33.59	8.1
I16	14 Nov 2019	1019	2	<2	<2	<2	1.00	17.9	83.75	8.2	33.61	8.2
I16	14 Nov 2019	1019	18	<2	<2	<2	1.00	16.8	83.69	8.0	33.59	8.1
I16	14 Nov 2019	1019	27	<2	<2	<2	1.00	15.6	84.79	7.6	33.59	8.1
I18	14 Nov 2019	958	2	<2	<2	<2	1.00	17.5	77.37	8.3	33.61	8.2
I18	14 Nov 2019	958	12	<2	<2	<2	1.00	17.1	80.50	8.1	33.59	8.2
I18	14 Nov 2019	958	18	<2	<2	<2	1.00	15.7	83.74	7.6	33.59	8.1
I20	14 Nov 2019	834	2	<2	<2	<2	1.00	17.8	83.41	8.3	33.61	8.2
I20	14 Nov 2019	834	18	<2	<2	<2	1.00	16.3	83.07	8.1	33.57	8.1
I20	14 Nov 2019	834	55	8e	<2	<2	0.25	13.6	86.28	6.0	33.63	8.0
I21	14 Nov 2019	853	2	2e	<2	<2	1.00	17.9	85.28	8.1	33.61	8.2
I21	14 Nov 2019	853	18	<2	<2	<2	1.00	16.9	83.13	8.2	33.59	8.1
I21	14 Nov 2019	853	37	<2	<2	<2	1.00	14.9	86.59	7.0	33.60	8.0
I22	14 Nov 2019	928	2	<2	<2	<2	1.00	17.9	84.04	8.2	33.61	8.2
I22	14 Nov 2019	928	18	<2	<2	<2	1.00	17.6	84.13	8.2	33.60	8.2
I22	14 Nov 2019	928	27	<2	<2	<2	1.00	15.5	84.55	7.5	33.59	8.1
I23	14 Nov 2019	944	2	<2	<2	<2	1.00	17.6	76.19	8.3	33.60	8.2
I23	14 Nov 2019	944	12	<2	<2	<2	1.00	17.4	78.55	8.3	33.60	8.2
I23	14 Nov 2019	944	18	<2	<2	<2	1.00	16.2	82.29	7.6	33.59	8.1
I3	13 Nov 2019	946	2	<2	<2	<2	1.00	17.8	82.02	8.4	33.60	8.2
I3	13 Nov 2019	946	18	<2	<2	<2	1.00	15.8	85.55	7.8	33.61	8.1
I3	13 Nov 2019	946	27	<2	<2	<2	1.00	15.7	84.11	7.6	33.59	8.1

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
I30	15 Nov 2019	856	2	<2	<2	<2	1.00	17.2	82.87	8.2	33.60	8.2
I30	15 Nov 2019	856	18	4e	<2	<2	0.50	15.5	85.20	7.3	33.59	8.1
I30	15 Nov 2019	856	27	2e	8e	<2	4.00	14.8	85.55	6.9	33.61	8.1
I33	15 Nov 2019	801	2	<2	<2	<2	1.00	16.8	79.03	7.6	33.62	8.1
I33	15 Nov 2019	801	18	10e	<2	2e	0.20	15.0	86.59	6.9	33.59	8.0
I33	15 Nov 2019	801	27	20e	12e	6e	0.60	14.7	86.46	6.7	33.62	8.0
I36	15 Nov 2019	931	2	<2	<2	<2	1.00	17.4	75.78	8.1	33.62	8.2
I36	15 Nov 2019	931	6	<2	<2	<2	1.00	17.1	69.91	7.6	33.60	8.1
I36	15 Nov 2019	931	11	<2	<2	<2	1.00	16.3	78.25	7.1	33.59	8.1
I37	15 Nov 2019	737	2	<2	2e	<2	1.00	17.4	76.66	7.9	33.64	8.1
I37	15 Nov 2019	737	6	<2	<2	<2	1.00	17.3	76.91	7.9	33.63	8.1
I37	15 Nov 2019	737	11	<20	<2	<2	0.10	16.7	75.43	7.4	33.62	8.1
I38	15 Nov 2019	1002	2	<2	<2	<2	1.00	17.4	78.27	8.1	33.62	8.2
I38	15 Nov 2019	1002	6	<2	<2	<2	1.00	17.3	76.46	8.1	33.62	8.2
I38	15 Nov 2019	1002	11	<20	<20	<2	1.00	16.6	69.12	6.9	33.60	8.1
I5	13 Nov 2019	1007	2	2e	<2	<2	1.00	17.2	75.06	8.3	33.59	8.1
I5	13 Nov 2019	1007	6	<20	<2	<2	0.10	17.2	74.19	8.3	33.59	8.1
I5	13 Nov 2019	1007	11	20e	4e	2e	0.20	17.2	75.18	8.1	33.59	8.1
I7	13 Nov 2019	837	2	<2	<2	<2	1.00	18.2	86.63	7.7	33.61	8.1
I7	13 Nov 2019	837	18	<2	<2	<2	1.00	15.8	84.38	7.8	33.60	8.1
I7	13 Nov 2019	837	52	<2	<2	<2	1.00	14.3	86.72	6.7	33.61	8.0
I8	13 Nov 2019	1110	2	<2	<2	<2	1.00	18.2	85.82	8.1	33.61	8.2
I8	13 Nov 2019	1110	18	<2	<2	<2	1.00	15.9	85.18	7.7	33.60	8.1
I8	13 Nov 2019	1110	37	<2	<2	<2	1.00	15.2	85.76	7.3	33.60	8.0
I9	13 Nov 2019	1059	2	<2	<2	<2	1.00	17.9	79.81	8.6	33.60	8.2
I9	13 Nov 2019	1059	18	<2	<2	<2	1.00	17.8	81.96	8.4	33.60	8.2
I9	13 Nov 2019	1059	27	<2	<2	<2	1.00	15.7	84.09	7.7	33.59	8.1

ns = not sampled
ND = no data

Table 4.6

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

Station	Date	Parameter	Value
I1	13 Nov 2019	Depth (m)	62
I1	13 Nov 2019	Arrive Time	859
I1	13 Nov 2019	Depart Time	911
I1	13 Nov 2019	Air Temp (C)	16
I1	13 Nov 2019	Weather	Fog
I1	13 Nov 2019	Visibility (mi)	4
I1	13 Nov 2019	Wind Speed (kts)	7
I1	13 Nov 2019	Wind Dir	NW
I1	13 Nov 2019	Water Color	Greenish-Blue
I1	13 Nov 2019	Wave Ht Low (ft)	4
I1	13 Nov 2019	Wave Period (sec)	13
I1	13 Nov 2019	Sea State	Wind ripples
I1	13 Nov 2019	High Tide (ft)	6.33
I1	13 Nov 2019	High Tide Time	2106
I1	13 Nov 2019	Low Tide (ft)	-0.71
I1	13 Nov 2019	Low Tide Time	405
I1	13 Nov 2019	Comments	OA station; 1m-17224 30m-17225 60m-17226 60m Dup-17227
I10	13 Nov 2019	Depth (m)	21
I10	13 Nov 2019	Arrive Time	1048
I10	13 Nov 2019	Depart Time	1052
I10	13 Nov 2019	Air Temp (C)	17
I10	13 Nov 2019	Weather	Fog
I10	13 Nov 2019	Visibility (mi)	4
I10	13 Nov 2019	Wind Speed (kts)	7
I10	13 Nov 2019	Wind Dir	SW
I10	13 Nov 2019	Water Color	Green
I10	13 Nov 2019	Wave Ht Low (ft)	4
I10	13 Nov 2019	Wave Period (sec)	13
I10	13 Nov 2019	Sea State	Wind ripples
I10	13 Nov 2019	High Tide (ft)	6.33
I10	13 Nov 2019	High Tide Time	2106
I10	13 Nov 2019	Low Tide (ft)	-0.71
I10	13 Nov 2019	Low Tide Time	405
I10	13 Nov 2019	Comments	none
I11	13 Nov 2019	Depth (m)	14
I11	13 Nov 2019	Arrive Time	1037
I11	13 Nov 2019	Depart Time	1042
I11	13 Nov 2019	Air Temp (C)	17
I11	13 Nov 2019	Weather	Fog
I11	13 Nov 2019	Visibility (mi)	4
I11	13 Nov 2019	Wind Speed (kts)	5
I11	13 Nov 2019	Wind Dir	W
I11	13 Nov 2019	Water Color	Green
I11	13 Nov 2019	Wave Ht Low (ft)	4
I11	13 Nov 2019	Wave Period (sec)	13
I11	13 Nov 2019	Sea State	Wind ripples
I11	13 Nov 2019	High Tide (ft)	6.33
I11	13 Nov 2019	High Tide Time	2106
I11	13 Nov 2019	Low Tide (ft)	-0.71

Station	Date	Parameter	Value
I11	13 Nov 2019	Low Tide Time	405
I11	13 Nov 2019	Comments	none
I12	14 Nov 2019	Depth (m)	29
I12	14 Nov 2019	Arrive Time	1028
I12	14 Nov 2019	Depart Time	1030
I12	14 Nov 2019	Air Temp (C)	17
I12	14 Nov 2019	Weather	Overcast
I12	14 Nov 2019	Visibility (mi)	3
I12	14 Nov 2019	Wind Speed (kts)	6
I12	14 Nov 2019	Wind Dir	W
I12	14 Nov 2019	Water Color	Green
I12	14 Nov 2019	Wave Ht Low (ft)	4
I12	14 Nov 2019	Wave Period (sec)	13
I12	14 Nov 2019	Sea State	Calm
I12	14 Nov 2019	High Tide (ft)	6.33
I12	14 Nov 2019	High Tide Time	2106
I12	14 Nov 2019	Low Tide (ft)	-0.71
I12	14 Nov 2019	Low Tide Time	405
I12	14 Nov 2019	Comments	none
I13	14 Nov 2019	Depth (m)	39
I13	14 Nov 2019	Arrive Time	1055
I13	14 Nov 2019	Depart Time	1100
I13	14 Nov 2019	Air Temp (C)	17
I13	14 Nov 2019	Weather	Overcast
I13	14 Nov 2019	Visibility (mi)	3
I13	14 Nov 2019	Wind Speed (kts)	9
I13	14 Nov 2019	Wind Dir	W
I13	14 Nov 2019	Water Color	Green
I13	14 Nov 2019	Wave Ht Low (ft)	4
I13	14 Nov 2019	Wave Period (sec)	13
I13	14 Nov 2019	Sea State	Calm
I13	14 Nov 2019	High Tide (ft)	6.33
I13	14 Nov 2019	High Tide Time	2106
I13	14 Nov 2019	Low Tide (ft)	-0.71
I13	14 Nov 2019	Low Tide Time	405
I13	14 Nov 2019	Comments	none
I14	14 Nov 2019	Depth (m)	3
I14	14 Nov 2019	Arrive Time	1117
I14	14 Nov 2019	Depart Time	1117
I14	14 Nov 2019	Air Temp (C)	16
I14	14 Nov 2019	Weather	Fog
I14	14 Nov 2019	Visibility (mi)	2
I14	14 Nov 2019	Wind Speed (kts)	18
I14	14 Nov 2019	Wind Dir	W
I14	14 Nov 2019	Water Color	Green
I14	14 Nov 2019	Wave Ht Low (ft)	4
I14	14 Nov 2019	Wave Period (sec)	13
I14	14 Nov 2019	Sea State	Calm
I14	14 Nov 2019	High Tide (ft)	6.33
I14	14 Nov 2019	High Tide Time	2106
I14	14 Nov 2019	Low Tide (ft)	-0.71
I14	14 Nov 2019	Low Tide Time	405

Station	Date	Parameter	Value
I14	14 Nov 2019	Comments	none
I15	14 Nov 2019	Depth (m)	32
I15	14 Nov 2019	Arrive Time	1038
I15	14 Nov 2019	Depart Time	1055
I15	14 Nov 2019	Air Temp (C)	17
I15	14 Nov 2019	Weather	Overcast
I15	14 Nov 2019	Visibility (mi)	3
I15	14 Nov 2019	Wind Speed (kts)	8
I15	14 Nov 2019	Wind Dir	SW
I15	14 Nov 2019	Water Color	Green
I15	14 Nov 2019	Wave Ht Low (ft)	4
I15	14 Nov 2019	Wave Period (sec)	13
I15	14 Nov 2019	Sea State	Calm
I15	14 Nov 2019	High Tide (ft)	6.33
I15	14 Nov 2019	High Tide Time	2106
I15	14 Nov 2019	Low Tide (ft)	-0.71
I15	14 Nov 2019	Low Tide Time	405
I15	14 Nov 2019	Comments	none
I16	14 Nov 2019	Depth (m)	28
I16	14 Nov 2019	Arrive Time	1019
I16	14 Nov 2019	Depart Time	1023
I16	14 Nov 2019	Air Temp (C)	17
I16	14 Nov 2019	Weather	Overcast
I16	14 Nov 2019	Visibility (mi)	3
I16	14 Nov 2019	Wind Speed (kts)	6
I16	14 Nov 2019	Wind Dir	W
I16	14 Nov 2019	Water Color	Green
I16	14 Nov 2019	Wave Ht Low (ft)	4
I16	14 Nov 2019	Wave Period (sec)	13
I16	14 Nov 2019	Sea State	Calm
I16	14 Nov 2019	High Tide (ft)	6.33
I16	14 Nov 2019	High Tide Time	2106
I16	14 Nov 2019	Low Tide (ft)	-0.71
I16	14 Nov 2019	Low Tide Time	405
I16	14 Nov 2019	Comments	none
I17	14 Nov 2019	Depth (m)	27
I17	14 Nov 2019	Arrive Time	1011
I17	14 Nov 2019	Depart Time	1013
I17	14 Nov 2019	Air Temp (C)	17
I17	14 Nov 2019	Weather	Overcast
I17	14 Nov 2019	Visibility (mi)	3
I17	14 Nov 2019	Wind Speed (kts)	3
I17	14 Nov 2019	Wind Dir	NW
I17	14 Nov 2019	Water Color	Green
I17	14 Nov 2019	Wave Ht Low (ft)	4
I17	14 Nov 2019	Wave Period (sec)	13
I17	14 Nov 2019	Sea State	Calm
I17	14 Nov 2019	High Tide (ft)	6.33
I17	14 Nov 2019	High Tide Time	2106
I17	14 Nov 2019	Low Tide (ft)	-0.71
I17	14 Nov 2019	Low Tide Time	405
I17	14 Nov 2019	Comments	none

Station	Date	Parameter	Value
I18	14 Nov 2019	Depth (m)	19
I18	14 Nov 2019	Arrive Time	958
I18	14 Nov 2019	Depart Time	1000
I18	14 Nov 2019	Air Temp (C)	17
I18	14 Nov 2019	Weather	Overcast
I18	14 Nov 2019	Visibility (mi)	3
I18	14 Nov 2019	Wind Speed (kts)	13
I18	14 Nov 2019	Wind Dir	SW
I18	14 Nov 2019	Water Color	Green
I18	14 Nov 2019	Wave Ht Low (ft)	4
I18	14 Nov 2019	Wave Period (sec)	13
I18	14 Nov 2019	Sea State	Calm
I18	14 Nov 2019	High Tide (ft)	6.33
I18	14 Nov 2019	High Tide Time	2106
I18	14 Nov 2019	Low Tide (ft)	-0.71
I18	14 Nov 2019	Low Tide Time	405
I18	14 Nov 2019	Comments	none
I2	13 Nov 2019	Depth (m)	35
I2	13 Nov 2019	Arrive Time	932
I2	13 Nov 2019	Depart Time	938
I2	13 Nov 2019	Air Temp (C)	16
I2	13 Nov 2019	Weather	Fog
I2	13 Nov 2019	Visibility (mi)	4
I2	13 Nov 2019	Wind Speed (kts)	8
I2	13 Nov 2019	Wind Dir	W
I2	13 Nov 2019	Water Color	Greenish-Blue
I2	13 Nov 2019	Wave Ht Low (ft)	4
I2	13 Nov 2019	Wave Period (sec)	13
I2	13 Nov 2019	Sea State	Wind ripples
I2	13 Nov 2019	High Tide (ft)	6.33
I2	13 Nov 2019	High Tide Time	2106
I2	13 Nov 2019	Low Tide (ft)	-0.71
I2	13 Nov 2019	Low Tide Time	405
I2	13 Nov 2019	Comments	none
I20	14 Nov 2019	Depth (m)	56
I20	14 Nov 2019	Arrive Time	834
I20	14 Nov 2019	Depart Time	840
I20	14 Nov 2019	Air Temp (C)	16
I20	14 Nov 2019	Weather	Overcast
I20	14 Nov 2019	Visibility (mi)	2
I20	14 Nov 2019	Wind Speed (kts)	2
I20	14 Nov 2019	Wind Dir	NW
I20	14 Nov 2019	Water Color	Greenish-Blue
I20	14 Nov 2019	Wave Ht Low (ft)	4
I20	14 Nov 2019	Wave Period (sec)	13
I20	14 Nov 2019	Sea State	Calm
I20	14 Nov 2019	High Tide (ft)	6.33
I20	14 Nov 2019	High Tide Time	2106
I20	14 Nov 2019	Low Tide (ft)	-0.71
I20	14 Nov 2019	Low Tide Time	405
I20	14 Nov 2019	Comments	none

Station	Date	Parameter	Value
I21	14 Nov 2019	Depth (m)	42
I21	14 Nov 2019	Arrive Time	853
I21	14 Nov 2019	Depart Time	911
I21	14 Nov 2019	Air Temp (C)	16
I21	14 Nov 2019	Weather	Overcast
I21	14 Nov 2019	Visibility (mi)	3
I21	14 Nov 2019	Wind Speed (kts)	10
I21	14 Nov 2019	Wind Dir	NW
I21	14 Nov 2019	Water Color	Greenish-Blue
I21	14 Nov 2019	Wave Ht Low (ft)	4
I21	14 Nov 2019	Wave Period (sec)	13
I21	14 Nov 2019	Sea State	Calm
I21	14 Nov 2019	High Tide (ft)	6.33
I21	14 Nov 2019	High Tide Time	2106
I21	14 Nov 2019	Low Tide (ft)	-0.71
I21	14 Nov 2019	Low Tide Time	405
I21	14 Nov 2019	Comments	none
I22	14 Nov 2019	Depth (m)	29
I22	14 Nov 2019	Arrive Time	928
I22	14 Nov 2019	Depart Time	941
I22	14 Nov 2019	Air Temp (C)	16
I22	14 Nov 2019	Weather	Overcast
I22	14 Nov 2019	Visibility (mi)	3
I22	14 Nov 2019	Wind Speed (kts)	4
I22	14 Nov 2019	Wind Dir	NW
I22	14 Nov 2019	Water Color	Greenish-Blue
I22	14 Nov 2019	Wave Ht Low (ft)	4
I22	14 Nov 2019	Wave Period (sec)	13
I22	14 Nov 2019	Sea State	Calm
I22	14 Nov 2019	High Tide (ft)	6.33
I22	14 Nov 2019	High Tide Time	2106
I22	14 Nov 2019	Low Tide (ft)	-0.71
I22	14 Nov 2019	Low Tide Time	405
I22	14 Nov 2019	Comments	none
I23	14 Nov 2019	Depth (m)	22
I23	14 Nov 2019	Arrive Time	944
I23	14 Nov 2019	Depart Time	948
I23	14 Nov 2019	Air Temp (C)	16
I23	14 Nov 2019	Weather	Overcast
I23	14 Nov 2019	Visibility (mi)	3
I23	14 Nov 2019	Wind Speed (kts)	4
I23	14 Nov 2019	Wind Dir	NW
I23	14 Nov 2019	Water Color	Green
I23	14 Nov 2019	Wave Ht Low (ft)	4
I23	14 Nov 2019	Wave Period (sec)	13
I23	14 Nov 2019	Sea State	Calm
I23	14 Nov 2019	High Tide (ft)	6.33
I23	14 Nov 2019	High Tide Time	2106
I23	14 Nov 2019	Low Tide (ft)	-0.71
I23	14 Nov 2019	Low Tide Time	405
I23	14 Nov 2019	Comments	none
I27	14 Nov 2019	Depth (m)	30

Station	Date	Parameter	Value
I27	14 Nov 2019	Arrive Time	911
I27	14 Nov 2019	Depart Time	914
I27	14 Nov 2019	Air Temp (C)	16
I27	14 Nov 2019	Weather	Overcast
I27	14 Nov 2019	Visibility (mi)	3
I27	14 Nov 2019	Wind Speed (kts)	5
I27	14 Nov 2019	Wind Dir	N
I27	14 Nov 2019	Water Color	Greenish-Blue
I27	14 Nov 2019	Wave Ht Low (ft)	4
I27	14 Nov 2019	Wave Period (sec)	13
I27	14 Nov 2019	Sea State	Calm
I27	14 Nov 2019	High Tide (ft)	6.33
I27	14 Nov 2019	High Tide Time	2106
I27	14 Nov 2019	Low Tide (ft)	-0.71
I27	14 Nov 2019	Low Tide Time	405
I27	14 Nov 2019	Comments	none
I28	15 Nov 2019	Depth (m)	55
I28	15 Nov 2019	Arrive Time	818
I28	15 Nov 2019	Depart Time	833
I28	15 Nov 2019	Air Temp (C)	17
I28	15 Nov 2019	Weather	Cloudy
I28	15 Nov 2019	Visibility (mi)	6
I28	15 Nov 2019	Wind Speed (kts)	3
I28	15 Nov 2019	Wind Dir	NW
I28	15 Nov 2019	Water Color	Greenish-Blue
I28	15 Nov 2019	Wave Ht Low (ft)	3
I28	15 Nov 2019	Wave Period (sec)	9
I28	15 Nov 2019	Sea State	Calm
I28	15 Nov 2019	High Tide (ft)	6.33
I28	15 Nov 2019	High Tide Time	2106
I28	15 Nov 2019	Low Tide (ft)	-0.71
I28	15 Nov 2019	Low Tide Time	405
I28	15 Nov 2019	Comments	B’18 Ocean Acidification samples taken at 1m bottle # 17229 and 55m bottle # 17228
I29	15 Nov 2019	Depth (m)	38
I29	15 Nov 2019	Arrive Time	843
I29	15 Nov 2019	Depart Time	847
I29	15 Nov 2019	Air Temp (C)	17
I29	15 Nov 2019	Weather	Cloudy
I29	15 Nov 2019	Visibility (mi)	6
I29	15 Nov 2019	Wind Speed (kts)	4
I29	15 Nov 2019	Wind Dir	W
I29	15 Nov 2019	Water Color	Greenish-Blue
I29	15 Nov 2019	Wave Ht Low (ft)	3
I29	15 Nov 2019	Wave Period (sec)	9
I29	15 Nov 2019	Sea State	Light chop
I29	15 Nov 2019	High Tide (ft)	6.33
I29	15 Nov 2019	High Tide Time	2106
I29	15 Nov 2019	Low Tide (ft)	-0.71
I29	15 Nov 2019	Low Tide Time	405
I29	15 Nov 2019	Comments	none
I3	13 Nov 2019	Depth (m)	28

Station	Date	Parameter	Value
I3	13 Nov 2019	Arrive Time	946
I3	13 Nov 2019	Depart Time	952
I3	13 Nov 2019	Air Temp (C)	16
I3	13 Nov 2019	Weather	Fog
I3	13 Nov 2019	Visibility (mi)	4
I3	13 Nov 2019	Wind Speed (kts)	7
I3	13 Nov 2019	Wind Dir	W
I3	13 Nov 2019	Water Color	Bluish-Green
I3	13 Nov 2019	Wave Ht Low (ft)	4
I3	13 Nov 2019	Wave Period (sec)	13
I3	13 Nov 2019	Sea State	Wind ripples
I3	13 Nov 2019	High Tide (ft)	6.33
I3	13 Nov 2019	High Tide Time	2106
I3	13 Nov 2019	Low Tide (ft)	-0.71
I3	13 Nov 2019	Low Tide Time	405
I3	13 Nov 2019	Comments	none
I30	15 Nov 2019	Depth (m)	29
I30	15 Nov 2019	Arrive Time	856
I30	15 Nov 2019	Depart Time	859
I30	15 Nov 2019	Air Temp (C)	17
I30	15 Nov 2019	Weather	Partly Cloudy
I30	15 Nov 2019	Visibility (mi)	8
I30	15 Nov 2019	Wind Speed (kts)	7
I30	15 Nov 2019	Wind Dir	W
I30	15 Nov 2019	Water Color	Greenish-Blue
I30	15 Nov 2019	Wave Ht Low (ft)	3
I30	15 Nov 2019	Wave Period (sec)	9
I30	15 Nov 2019	Sea State	Light chop
I30	15 Nov 2019	High Tide (ft)	6.33
I30	15 Nov 2019	High Tide Time	2106
I30	15 Nov 2019	Low Tide (ft)	-0.71
I30	15 Nov 2019	Low Tide Time	405
I30	15 Nov 2019	Comments	none
I31	15 Nov 2019	Depth (m)	20
I31	15 Nov 2019	Arrive Time	910
I31	15 Nov 2019	Depart Time	913
I31	15 Nov 2019	Air Temp (C)	17
I31	15 Nov 2019	Weather	Partly Cloudy
I31	15 Nov 2019	Visibility (mi)	8
I31	15 Nov 2019	Wind Speed (kts)	3
I31	15 Nov 2019	Wind Dir	SW
I31	15 Nov 2019	Water Color	Greenish-Blue
I31	15 Nov 2019	Wave Ht Low (ft)	3
I31	15 Nov 2019	Wave Period (sec)	9
I31	15 Nov 2019	Sea State	Light chop
I31	15 Nov 2019	High Tide (ft)	6.33
I31	15 Nov 2019	High Tide Time	2106
I31	15 Nov 2019	Low Tide (ft)	-0.71
I31	15 Nov 2019	Low Tide Time	405
I31	15 Nov 2019	Comments	none
I33	15 Nov 2019	Depth (m)	30
I33	15 Nov 2019	Arrive Time	801

Station	Date	Parameter	Value
I33	15 Nov 2019	Depart Time	804
I33	15 Nov 2019	Air Temp (C)	16
I33	15 Nov 2019	Weather	Cloudy
I33	15 Nov 2019	Visibility (mi)	6
I33	15 Nov 2019	Wind Speed (kts)	3
I33	15 Nov 2019	Wind Dir	NW
I33	15 Nov 2019	Water Color	Greenish-Blue
I33	15 Nov 2019	Wave Ht Low (ft)	3
I33	15 Nov 2019	Wave Period (sec)	9
I33	15 Nov 2019	Sea State	Calm
I33	15 Nov 2019	High Tide (ft)	6.33
I33	15 Nov 2019	High Tide Time	2106
I33	15 Nov 2019	Low Tide (ft)	-0.71
I33	15 Nov 2019	Low Tide Time	405
I33	15 Nov 2019	Comments	none
I34	15 Nov 2019	Depth (m)	21
I34	15 Nov 2019	Arrive Time	749
I34	15 Nov 2019	Depart Time	752
I34	15 Nov 2019	Air Temp (C)	16
I34	15 Nov 2019	Weather	Cloudy
I34	15 Nov 2019	Visibility (mi)	6
I34	15 Nov 2019	Wind Speed (kts)	4
I34	15 Nov 2019	Wind Dir	N
I34	15 Nov 2019	Water Color	Greenish-Blue
I34	15 Nov 2019	Wave Ht Low (ft)	3
I34	15 Nov 2019	Wave Period (sec)	9
I34	15 Nov 2019	Sea State	Calm
I34	15 Nov 2019	High Tide (ft)	6.33
I34	15 Nov 2019	High Tide Time	2106
I34	15 Nov 2019	Low Tide (ft)	-0.71
I34	15 Nov 2019	Low Tide Time	405
I34	15 Nov 2019	Comments	none
I35	15 Nov 2019	Depth (m)	21
I35	15 Nov 2019	Arrive Time	946
I35	15 Nov 2019	Depart Time	949
I35	15 Nov 2019	Air Temp (C)	17
I35	15 Nov 2019	Weather	Partly Cloudy
I35	15 Nov 2019	Visibility (mi)	8
I35	15 Nov 2019	Wind Speed (kts)	6
I35	15 Nov 2019	Wind Dir	SW
I35	15 Nov 2019	Water Color	Green
I35	15 Nov 2019	Wave Ht Low (ft)	3
I35	15 Nov 2019	Wave Period (sec)	9
I35	15 Nov 2019	Sea State	Light chop
I35	15 Nov 2019	High Tide (ft)	6.33
I35	15 Nov 2019	High Tide Time	2106
I35	15 Nov 2019	Low Tide (ft)	-0.71
I35	15 Nov 2019	Low Tide Time	405
I35	15 Nov 2019	Comments	none
I36	15 Nov 2019	Depth (m)	11
I36	15 Nov 2019	Arrive Time	931
I36	15 Nov 2019	Depart Time	934

Station	Date	Parameter	Value
I36	15 Nov 2019	Air Temp (C)	17
I36	15 Nov 2019	Weather	Partly Cloudy
I36	15 Nov 2019	Visibility (mi)	8
I36	15 Nov 2019	Wind Speed (kts)	8
I36	15 Nov 2019	Wind Dir	SW
I36	15 Nov 2019	Water Color	Green
I36	15 Nov 2019	Wave Ht Low (ft)	3
I36	15 Nov 2019	Wave Period (sec)	9
I36	15 Nov 2019	Sea State	Light chop
I36	15 Nov 2019	High Tide (ft)	6.33
I36	15 Nov 2019	High Tide Time	2106
I36	15 Nov 2019	Low Tide (ft)	-0.71
I36	15 Nov 2019	Low Tide Time	405
I36	15 Nov 2019	Comments	none
I37	15 Nov 2019	Depth (m)	13
I37	15 Nov 2019	Arrive Time	737
I37	15 Nov 2019	Depart Time	740
I37	15 Nov 2019	Air Temp (C)	17
I37	15 Nov 2019	Weather	Cloudy
I37	15 Nov 2019	Visibility (mi)	4
I37	15 Nov 2019	Wind Speed (kts)	2
I37	15 Nov 2019	Wind Dir	NW
I37	15 Nov 2019	Water Color	Greenish-Blue
I37	15 Nov 2019	Wave Ht Low (ft)	3
I37	15 Nov 2019	Wave Period (sec)	9
I37	15 Nov 2019	Sea State	Calm
I37	15 Nov 2019	High Tide (ft)	6.33
I37	15 Nov 2019	High Tide Time	2106
I37	15 Nov 2019	Low Tide (ft)	-0.71
I37	15 Nov 2019	Low Tide Time	405
I37	15 Nov 2019	Comments	none
I38	15 Nov 2019	Depth (m)	13
I38	15 Nov 2019	Arrive Time	1002
I38	15 Nov 2019	Depart Time	1006
I38	15 Nov 2019	Air Temp (C)	18
I38	15 Nov 2019	Weather	Partly Cloudy
I38	15 Nov 2019	Visibility (mi)	8
I38	15 Nov 2019	Wind Speed (kts)	8
I38	15 Nov 2019	Wind Dir	SW
I38	15 Nov 2019	Water Color	Greenish-Blue
I38	15 Nov 2019	Wave Ht Low (ft)	3
I38	15 Nov 2019	Wave Period (sec)	9
I38	15 Nov 2019	Sea State	Light chop
I38	15 Nov 2019	High Tide (ft)	6.33
I38	15 Nov 2019	High Tide Time	2106
I38	15 Nov 2019	Low Tide (ft)	-0.71
I38	15 Nov 2019	Low Tide Time	405
I38	15 Nov 2019	Comments	none
I4	13 Nov 2019	Depth (m)	20
I4	13 Nov 2019	Arrive Time	959
I4	13 Nov 2019	Depart Time	1005
I4	13 Nov 2019	Air Temp (C)	16

Station	Date	Parameter	Value
I4	13 Nov 2019	Weather	Fog
I4	13 Nov 2019	Visibility (mi)	4
I4	13 Nov 2019	Wind Speed (kts)	8
I4	13 Nov 2019	Wind Dir	W
I4	13 Nov 2019	Water Color	Green
I4	13 Nov 2019	Wave Ht Low (ft)	4
I4	13 Nov 2019	Wave Period (sec)	13
I4	13 Nov 2019	Sea State	Wind ripples
I4	13 Nov 2019	High Tide (ft)	6.33
I4	13 Nov 2019	High Tide Time	2106
I4	13 Nov 2019	Low Tide (ft)	-0.71
I4	13 Nov 2019	Low Tide Time	405
I4	13 Nov 2019	Comments	none
I5	13 Nov 2019	Depth (m)	15
I5	13 Nov 2019	Arrive Time	1007
I5	13 Nov 2019	Depart Time	1013
I5	13 Nov 2019	Air Temp (C)	16
I5	13 Nov 2019	Weather	Fog
I5	13 Nov 2019	Visibility (mi)	4
I5	13 Nov 2019	Wind Speed (kts)	8
I5	13 Nov 2019	Wind Dir	SW
I5	13 Nov 2019	Water Color	Green
I5	13 Nov 2019	Wave Ht Low (ft)	4
I5	13 Nov 2019	Wave Period (sec)	13
I5	13 Nov 2019	Sea State	Wind ripples
I5	13 Nov 2019	High Tide (ft)	6.33
I5	13 Nov 2019	High Tide Time	2106
I5	13 Nov 2019	Low Tide (ft)	-0.71
I5	13 Nov 2019	Low Tide Time	405
I5	13 Nov 2019	Comments	none
I6	13 Nov 2019	Depth (m)	27
I6	13 Nov 2019	Arrive Time	1021
I6	13 Nov 2019	Depart Time	1026
I6	13 Nov 2019	Air Temp (C)	16
I6	13 Nov 2019	Weather	Fog
I6	13 Nov 2019	Visibility (mi)	4
I6	13 Nov 2019	Wind Speed (kts)	6
I6	13 Nov 2019	Wind Dir	W
I6	13 Nov 2019	Water Color	Green
I6	13 Nov 2019	Wave Ht Low (ft)	4
I6	13 Nov 2019	Wave Period (sec)	13
I6	13 Nov 2019	Sea State	Wind ripples
I6	13 Nov 2019	High Tide (ft)	6.33
I6	13 Nov 2019	High Tide Time	2106
I6	13 Nov 2019	Low Tide (ft)	-0.71
I6	13 Nov 2019	Low Tide Time	405
I6	13 Nov 2019	Comments	none
I7	13 Nov 2019	Depth (m)	53
I7	13 Nov 2019	Arrive Time	837
I7	13 Nov 2019	Depart Time	846
I7	13 Nov 2019	Air Temp (C)	16
I7	13 Nov 2019	Weather	Fog

Station	Date	Parameter	Value
I7	13 Nov 2019	Visibility (mi)	4
I7	13 Nov 2019	Wind Speed (kts)	2
I7	13 Nov 2019	Wind Dir	NW
I7	13 Nov 2019	Water Color	Greenish-Blue
I7	13 Nov 2019	Wave Ht Low (ft)	4
I7	13 Nov 2019	Wave Period (sec)	13
I7	13 Nov 2019	Sea State	Wind ripples
I7	13 Nov 2019	High Tide (ft)	6.33
I7	13 Nov 2019	High Tide Time	2106
I7	13 Nov 2019	Low Tide (ft)	-0.71
I7	13 Nov 2019	Low Tide Time	405
I7	13 Nov 2019	Comments	none
I8	13 Nov 2019	Depth (m)	37
I8	13 Nov 2019	Arrive Time	1110
I8	13 Nov 2019	Depart Time	1118
I8	13 Nov 2019	Air Temp (C)	16
I8	13 Nov 2019	Weather	Fog
I8	13 Nov 2019	Visibility (mi)	4
I8	13 Nov 2019	Wind Speed (kts)	7
I8	13 Nov 2019	Wind Dir	W
I8	13 Nov 2019	Water Color	Blue
I8	13 Nov 2019	Wave Ht Low (ft)	4
I8	13 Nov 2019	Wave Period (sec)	13
I8	13 Nov 2019	Sea State	Wind ripples
I8	13 Nov 2019	High Tide (ft)	6.33
I8	13 Nov 2019	High Tide Time	2106
I8	13 Nov 2019	Low Tide (ft)	-0.71
I8	13 Nov 2019	Low Tide Time	405
I8	13 Nov 2019	Comments	none
I9	13 Nov 2019	Depth (m)	30
I9	13 Nov 2019	Arrive Time	1059
I9	13 Nov 2019	Depart Time	1105
I9	13 Nov 2019	Air Temp (C)	16
I9	13 Nov 2019	Weather	Fog
I9	13 Nov 2019	Visibility (mi)	4
I9	13 Nov 2019	Wind Speed (kts)	8
I9	13 Nov 2019	Wind Dir	SW
I9	13 Nov 2019	Water Color	Green
I9	13 Nov 2019	Wave Ht Low (ft)	4
I9	13 Nov 2019	Wave Period (sec)	13
I9	13 Nov 2019	Sea State	Wind ripples
I9	13 Nov 2019	High Tide (ft)	6.33
I9	13 Nov 2019	High Tide Time	2106
I9	13 Nov 2019	Low Tide (ft)	-0.71
I9	13 Nov 2019	Low Tide Time	405
I9	13 Nov 2019	Comments	none

Table 4.7

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

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I1	13 Nov 2019	1	17.85	85.77	8.1	33.60	8.1	24.2	0.53
I1	13 Nov 2019	2	17.85	85.89	8.1	33.60	8.1	24.2	0.52
I1	13 Nov 2019	3	17.85	85.91	8.1	33.60	8.1	24.2	0.53
I1	13 Nov 2019	4	17.85	85.89	8.1	33.60	8.1	24.2	0.56
I1	13 Nov 2019	5	17.84	85.91	8.1	33.60	8.1	24.2	0.58
I1	13 Nov 2019	6	17.84	85.92	8.1	33.60	8.1	24.2	0.63
I1	13 Nov 2019	7	17.84	85.89	8.1	33.60	8.1	24.2	0.64
I1	13 Nov 2019	8	17.84	85.78	8.0	33.60	8.1	24.2	0.66
I1	13 Nov 2019	9	17.82	85.86	8.1	33.60	8.1	24.2	0.69
I1	13 Nov 2019	10	17.80	85.81	8.0	33.60	8.1	24.2	0.75
I1	13 Nov 2019	11	17.78	85.78	8.0	33.60	8.1	24.3	0.78
I1	13 Nov 2019	12	17.74	85.71	8.1	33.60	8.1	24.3	0.80
I1	13 Nov 2019	13	17.59	85.61	8.1	33.60	8.1	24.3	1.01
I1	13 Nov 2019	14	17.43	85.64	8.1	33.59	8.1	24.3	0.87
I1	13 Nov 2019	15	17.30	85.70	8.1	33.59	8.1	24.4	0.91
I1	13 Nov 2019	16	17.09	85.70	8.1	33.58	8.1	24.4	0.98
I1	13 Nov 2019	17	16.96	85.82	8.1	33.56	8.1	24.4	1.01
I1	13 Nov 2019	18	16.65	85.91	8.1	33.57	8.1	24.5	1.01
I1	13 Nov 2019	19	16.12	86.16	8.2	33.53	8.1	24.6	0.95
I1	13 Nov 2019	20	15.89	86.13	8.3	33.48	8.1	24.6	0.94
I1	13 Nov 2019	21	15.72	85.88	8.2	33.52	8.1	24.7	1.01
I1	13 Nov 2019	22	15.49	85.58	8.1	33.53	8.1	24.7	1.19
I1	13 Nov 2019	23	15.50	85.71	8.1	33.53	8.1	24.7	1.29
I1	13 Nov 2019	24	15.45	85.72	8.0	33.53	8.1	24.7	1.31
I1	13 Nov 2019	25	15.45	85.65	8.0	33.53	8.1	24.7	1.35
I1	13 Nov 2019	26	15.39	85.85	7.9	33.55	8.1	24.8	1.31
I1	13 Nov 2019	27	15.27	85.95	7.8	33.56	8.1	24.8	1.32
I1	13 Nov 2019	28	15.18	86.00	7.7	33.57	8.1	24.8	1.22
I1	13 Nov 2019	29	15.17	86.11	7.7	33.57	8.1	24.8	1.22
I1	13 Nov 2019	30	15.11	86.16	7.6	33.57	8.1	24.8	1.20
I1	13 Nov 2019	31	15.06	86.10	7.6	33.58	8.1	24.9	1.17
I1	13 Nov 2019	32	15.00	86.27	7.6	33.58	8.1	24.9	1.17
I1	13 Nov 2019	33	14.95	86.33	7.7	33.57	8.1	24.9	1.17
I1	13 Nov 2019	34	14.90	86.39	7.8	33.56	8.1	24.9	1.30
I1	13 Nov 2019	35	14.87	86.47	7.8	33.56	8.1	24.9	1.25
I1	13 Nov 2019	36	14.86	86.41	7.8	33.56	8.1	24.9	1.22
I1	13 Nov 2019	37	14.85	86.42	7.8	33.56	8.1	24.9	1.22
I1	13 Nov 2019	38	14.81	86.43	7.6	33.57	8.1	24.9	1.21
I1	13 Nov 2019	39	14.77	86.60	7.6	33.58	8.0	24.9	1.12
I1	13 Nov 2019	40	14.75	86.57	7.6	33.58	8.0	24.9	1.09
I1	13 Nov 2019	41	14.75	86.62	7.6	33.58	8.0	24.9	1.07
I1	13 Nov 2019	42	14.74	86.64	7.5	33.58	8.0	24.9	1.06
I1	13 Nov 2019	43	14.73	86.60	7.5	33.58	8.0	24.9	1.09
I1	13 Nov 2019	44	14.64	86.61	7.5	33.58	8.0	25.0	1.06
I1	13 Nov 2019	45	14.61	86.79	7.4	33.59	8.0	25.0	1.02
I1	13 Nov 2019	46	14.59	86.33	7.3	33.59	8.0	25.0	0.95
I1	13 Nov 2019	47	14.60	86.69	7.3	33.59	8.0	25.0	0.91
I1	13 Nov 2019	48	14.59	86.67	7.2	33.59	8.0	25.0	0.93
I1	13 Nov 2019	49	14.56	86.45	7.2	33.60	8.0	25.0	0.93
I1	13 Nov 2019	50	14.49	86.69	7.2	33.59	8.0	25.0	0.88
I1	13 Nov 2019	51	14.45	86.76	7.1	33.60	8.0	25.0	0.87

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I1	13 Nov 2019	52	14.19	86.92	7.0	33.61	8.0	25.1	0.83
I1	13 Nov 2019	53	14.07	87.00	6.9	33.60	8.0	25.1	0.78
I1	13 Nov 2019	54	14.02	86.98	6.8	33.61	8.0	25.1	0.77
I1	13 Nov 2019	55	13.95	86.95	6.7	33.61	8.0	25.1	0.75
I1	13 Nov 2019	56	13.84	86.88	6.6	33.62	8.0	25.2	0.72
I1	13 Nov 2019	57	13.77	86.99	6.6	33.62	8.0	25.2	0.69
I1	13 Nov 2019	58	13.75	87.00	6.5	33.62	8.0	25.2	0.69
I1	13 Nov 2019	59	13.70	87.02	6.5	33.62	8.0	25.2	0.68
I1	13 Nov 2019	60	13.58	87.08	6.4	33.63	8.0	25.2	0.67
I10	13 Nov 2019	1	17.71	77.75	8.5	33.59	8.2	24.3	1.62
I10	13 Nov 2019	2	17.71	77.66	8.5	33.59	8.2	24.3	1.69
I10	13 Nov 2019	3	17.71	77.72	8.5	33.59	8.2	24.3	1.81
I10	13 Nov 2019	4	17.69	77.65	8.5	33.59	8.2	24.3	1.94
I10	13 Nov 2019	5	17.62	77.13	8.6	33.59	8.2	24.3	2.44
I10	13 Nov 2019	6	17.59	76.98	8.5	33.59	8.2	24.3	3.00
I10	13 Nov 2019	7	17.50	78.31	8.4	33.60	8.2	24.3	3.10
I10	13 Nov 2019	8	17.26	80.53	8.3	33.60	8.1	24.4	2.78
I10	13 Nov 2019	9	17.06	82.86	8.2	33.60	8.1	24.4	2.27
I10	13 Nov 2019	10	16.83	83.54	8.2	33.60	8.1	24.5	2.09
I10	13 Nov 2019	11	16.63	83.19	8.0	33.60	8.1	24.5	2.19
I10	13 Nov 2019	12	16.51	82.19	7.9	33.59	8.1	24.5	2.38
I10	13 Nov 2019	13	16.48	81.85	7.9	33.59	8.1	24.6	2.82
I10	13 Nov 2019	14	16.47	81.95	7.8	33.59	8.1	24.6	2.81
I10	13 Nov 2019	15	16.48	82.08	7.8	33.59	8.1	24.6	2.82
I10	13 Nov 2019	16	16.47	82.05	7.8	33.59	8.1	24.6	2.82
I10	13 Nov 2019	17	16.47	82.18	7.8	33.59	8.1	24.6	2.62
I10	13 Nov 2019	18	16.47	82.26	7.7	33.59	8.1	24.6	2.53
I10	13 Nov 2019	19	16.45	82.39	7.6	33.59	8.1	24.6	2.38
I11	13 Nov 2019	1	17.51	76.57	8.4	33.59	8.1	24.3	1.29
I11	13 Nov 2019	2	17.49	76.31	8.4	33.59	8.1	24.3	1.41
I11	13 Nov 2019	3	17.39	75.24	8.4	33.59	8.1	24.3	2.10
I11	13 Nov 2019	4	17.36	74.50	8.4	33.59	8.1	24.3	2.81
I11	13 Nov 2019	5	17.31	74.04	8.4	33.59	8.1	24.4	4.05
I11	13 Nov 2019	6	17.29	74.81	8.4	33.58	8.1	24.4	4.42
I11	13 Nov 2019	7	17.25	75.66	8.3	33.59	8.1	24.4	4.50
I11	13 Nov 2019	8	17.20	76.86	8.2	33.59	8.1	24.4	4.16
I11	13 Nov 2019	9	17.05	78.61	8.1	33.59	8.1	24.4	3.48
I11	13 Nov 2019	10	16.89	79.03	7.9	33.60	8.1	24.5	3.27
I11	13 Nov 2019	11	16.72	79.67	7.7	33.59	8.1	24.5	2.74
I11	13 Nov 2019	12	16.69	79.78	7.7	33.59	8.1	24.5	2.46
I11	13 Nov 2019	13	16.68	79.70	7.6	33.59	8.1	24.5	2.28
I12	14 Nov 2019	1	17.86	83.00	8.2	33.60	8.2	24.2	0.81
I12	14 Nov 2019	2	17.86	83.12	8.2	33.60	8.2	24.2	0.82
I12	14 Nov 2019	3	17.82	83.14	8.2	33.60	8.2	24.2	0.87
I12	14 Nov 2019	4	17.77	83.00	8.3	33.60	8.2	24.3	1.01
I12	14 Nov 2019	5	17.75	82.83	8.3	33.60	8.2	24.3	1.17
I12	14 Nov 2019	6	17.75	82.65	8.3	33.60	8.2	24.3	1.28
I12	14 Nov 2019	7	17.76	82.61	8.2	33.60	8.2	24.3	1.35
I12	14 Nov 2019	8	17.75	82.70	8.2	33.60	8.2	24.3	1.39
I12	14 Nov 2019	9	17.74	82.71	8.2	33.60	8.2	24.3	1.52
I12	14 Nov 2019	10	17.74	82.70	8.2	33.60	8.2	24.3	1.62
I12	14 Nov 2019	11	17.73	82.71	8.2	33.60	8.2	24.3	1.71

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I12	14 Nov 2019	12	17.71	82.78	8.2	33.60	8.2	24.3	1.78
I12	14 Nov 2019	13	17.64	82.88	8.2	33.60	8.2	24.3	1.77
I12	14 Nov 2019	14	17.54	83.26	8.2	33.60	8.2	24.3	1.68
I12	14 Nov 2019	15	17.38	83.84	8.1	33.60	8.2	24.4	1.63
I12	14 Nov 2019	16	17.09	83.86	8.0	33.57	8.2	24.4	1.67
I12	14 Nov 2019	17	16.65	83.97	7.9	33.51	8.1	24.5	1.73
I12	14 Nov 2019	18	16.51	83.95	7.9	33.48	8.1	24.5	1.81
I12	14 Nov 2019	19	16.55	84.02	7.9	33.49	8.1	24.5	1.96
I12	14 Nov 2019	20	16.66	83.79	7.9	33.53	8.1	24.5	2.00
I12	14 Nov 2019	21	16.56	83.67	7.9	33.54	8.1	24.5	1.96
I12	14 Nov 2019	22	16.25	83.90	7.8	33.53	8.1	24.6	2.00
I12	14 Nov 2019	23	16.12	84.22	7.7	33.55	8.1	24.6	2.05
I12	14 Nov 2019	24	15.87	84.24	7.6	33.59	8.1	24.7	1.93
I12	14 Nov 2019	25	15.61	84.60	7.6	33.60	8.1	24.8	1.83
I12	14 Nov 2019	26	15.59	84.73	7.6	33.59	8.1	24.8	1.81
I12	14 Nov 2019	27	15.58	84.72	7.6	33.59	8.1	24.8	1.77
I12	14 Nov 2019	28	15.58	84.71	7.6	33.59	8.1	24.8	1.75
I13	14 Nov 2019	1	17.96	83.23	8.3	33.61	8.2	24.2	0.70
I13	14 Nov 2019	2	17.96	83.34	8.3	33.61	8.2	24.2	0.65
I13	14 Nov 2019	3	17.90	83.15	8.3	33.61	8.2	24.2	0.72
I13	14 Nov 2019	4	17.87	82.79	8.3	33.61	8.2	24.2	0.81
I13	14 Nov 2019	5	17.85	82.52	8.3	33.61	8.2	24.2	0.90
I13	14 Nov 2019	6	17.83	82.37	8.3	33.61	8.2	24.2	1.04
I13	14 Nov 2019	7	17.81	82.29	8.3	33.60	8.2	24.2	1.16
I13	14 Nov 2019	8	17.81	82.25	8.3	33.60	8.2	24.3	1.29
I13	14 Nov 2019	9	17.79	82.25	8.3	33.60	8.2	24.3	1.39
I13	14 Nov 2019	10	17.78	82.51	8.3	33.60	8.2	24.3	1.48
I13	14 Nov 2019	11	17.70	83.55	8.3	33.60	8.2	24.3	1.38
I13	14 Nov 2019	12	17.56	83.83	8.2	33.61	8.2	24.3	1.35
I13	14 Nov 2019	13	17.02	83.29	8.2	33.61	8.2	24.4	1.50
I13	14 Nov 2019	14	16.78	82.51	8.2	33.59	8.2	24.5	1.75
I13	14 Nov 2019	15	16.43	82.65	8.1	33.59	8.2	24.6	2.04
I13	14 Nov 2019	16	16.15	83.20	7.9	33.58	8.1	24.6	2.15
I13	14 Nov 2019	17	15.78	82.76	7.8	33.59	8.1	24.7	2.56
I13	14 Nov 2019	18	15.60	83.76	7.7	33.59	8.1	24.8	2.63
I13	14 Nov 2019	19	15.44	84.62	7.6	33.58	8.1	24.8	2.43
I13	14 Nov 2019	20	15.44	84.76	7.6	33.58	8.1	24.8	2.12
I13	14 Nov 2019	21	15.44	84.76	7.5	33.59	8.1	24.8	2.04
I13	14 Nov 2019	22	15.44	84.97	7.5	33.59	8.1	24.8	1.96
I13	14 Nov 2019	23	15.44	84.99	7.5	33.59	8.1	24.8	1.95
I13	14 Nov 2019	24	15.44	85.11	7.5	33.59	8.1	24.8	1.88
I13	14 Nov 2019	25	15.43	85.34	7.4	33.60	8.1	24.8	1.73
I13	14 Nov 2019	26	15.42	85.40	7.4	33.60	8.1	24.8	1.65
I13	14 Nov 2019	27	15.42	85.45	7.4	33.60	8.1	24.8	1.60
I13	14 Nov 2019	28	15.41	85.59	7.5	33.60	8.1	24.8	1.57
I13	14 Nov 2019	29	15.39	85.74	7.5	33.60	8.1	24.8	1.54
I13	14 Nov 2019	30	15.39	85.70	7.5	33.60	8.1	24.8	1.51
I13	14 Nov 2019	31	15.39	85.70	7.5	33.60	8.1	24.8	1.59
I13	14 Nov 2019	32	15.39	85.69	7.5	33.60	8.1	24.8	1.49
I13	14 Nov 2019	33	15.36	85.63	7.4	33.60	8.1	24.8	1.38
I13	14 Nov 2019	34	15.34	85.54	7.4	33.60	8.1	24.8	1.34
I13	14 Nov 2019	35	15.33	85.77	7.4	33.60	8.1	24.8	1.39
I13	14 Nov 2019	36	15.28	85.81	7.4	33.60	8.1	24.8	1.41
I13	14 Nov 2019	37	15.18	85.88	7.3	33.60	8.1	24.9	1.34

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I13	14 Nov 2019	38	15.07	86.08	7.2	33.61	8.1	24.9	1.20
I14	14 Nov 2019	1	17.95	83.58	8.2	33.61	8.2	24.2	0.65
I14	14 Nov 2019	2	17.95	83.63	8.2	33.61	8.2	24.2	0.66
I14	14 Nov 2019	3	17.94	83.53	8.2	33.61	8.2	24.2	0.70
I14	14 Nov 2019	4	17.91	83.37	8.2	33.61	8.2	24.2	0.74
I14	14 Nov 2019	5	17.84	83.08	8.2	33.61	8.2	24.2	0.82
I14	14 Nov 2019	6	17.83	83.04	8.3	33.61	8.2	24.2	0.91
I14	14 Nov 2019	7	17.83	83.01	8.2	33.60	8.2	24.2	1.00
I14	14 Nov 2019	8	17.82	82.86	8.2	33.60	8.2	24.2	1.10
I14	14 Nov 2019	9	17.82	82.92	8.2	33.60	8.2	24.2	1.20
I14	14 Nov 2019	10	17.82	82.85	8.3	33.60	8.2	24.2	1.29
I14	14 Nov 2019	11	17.81	82.94	8.2	33.61	8.2	24.2	1.38
I14	14 Nov 2019	12	17.80	83.02	8.2	33.61	8.2	24.3	1.50
I14	14 Nov 2019	13	17.80	83.14	8.2	33.60	8.2	24.3	1.54
I14	14 Nov 2019	14	17.78	83.21	8.2	33.61	8.2	24.3	1.65
I14	14 Nov 2019	15	17.67	83.52	8.2	33.60	8.2	24.3	1.64
I14	14 Nov 2019	16	17.57	83.69	8.2	33.60	8.2	24.3	1.67
I14	14 Nov 2019	17	17.40	83.83	8.1	33.61	8.2	24.4	1.65
I14	14 Nov 2019	18	16.75	82.87	8.0	33.61	8.2	24.5	2.09
I14	14 Nov 2019	19	16.20	83.15	7.8	33.59	8.1	24.6	2.47
I14	14 Nov 2019	20	15.91	83.29	7.7	33.59	8.1	24.7	2.46
I14	14 Nov 2019	21	15.83	83.80	7.7	33.58	8.1	24.7	2.36
I14	14 Nov 2019	22	15.64	84.07	7.7	33.59	8.1	24.7	2.34
I14	14 Nov 2019	23	15.56	84.34	7.6	33.59	8.1	24.8	2.12
I14	14 Nov 2019	24	15.54	84.46	7.6	33.59	8.1	24.8	2.04
I14	14 Nov 2019	25	15.54	84.51	7.6	33.59	8.1	24.8	1.99
I14	14 Nov 2019	26	15.54	84.53	7.6	33.59	8.1	24.8	1.99
I14	14 Nov 2019	27	15.54	84.50	7.6	33.59	8.1	24.8	1.88
I14	14 Nov 2019	28	15.54	84.37	7.6	33.59	8.1	24.8	1.80
I15	14 Nov 2019	1	17.90	83.25	8.3	33.60	8.2	24.2	0.69
I15	14 Nov 2019	2	17.88	83.14	8.3	33.61	8.2	24.2	0.70
I15	14 Nov 2019	3	17.82	82.92	8.3	33.60	8.2	24.2	0.78
I15	14 Nov 2019	4	17.82	82.86	8.3	33.60	8.2	24.2	0.84
I15	14 Nov 2019	5	17.80	82.80	8.3	33.60	8.2	24.3	0.93
I15	14 Nov 2019	6	17.80	82.71	8.3	33.60	8.2	24.3	1.04
I15	14 Nov 2019	7	17.79	82.78	8.3	33.60	8.2	24.3	1.11
I15	14 Nov 2019	8	17.79	82.70	8.3	33.60	8.2	24.3	1.25
I15	14 Nov 2019	9	17.78	82.70	8.3	33.60	8.2	24.3	1.34
I15	14 Nov 2019	10	17.77	82.65	8.3	33.60	8.2	24.3	1.50
I15	14 Nov 2019	11	17.77	82.50	8.2	33.60	8.2	24.3	1.63
I15	14 Nov 2019	12	17.76	82.69	8.2	33.60	8.2	24.3	1.66
I15	14 Nov 2019	13	17.75	82.78	8.2	33.60	8.2	24.3	1.71
I15	14 Nov 2019	14	17.74	83.03	8.2	33.60	8.2	24.3	1.71
I15	14 Nov 2019	15	17.69	83.57	8.2	33.60	8.2	24.3	1.61
I15	14 Nov 2019	16	17.66	84.02	8.2	33.61	8.2	24.3	1.54
I15	14 Nov 2019	17	17.31	84.14	8.1	33.62	8.2	24.4	1.49
I15	14 Nov 2019	18	16.88	84.07	8.1	33.60	8.2	24.5	1.71
I15	14 Nov 2019	19	16.86	83.94	8.0	33.58	8.2	24.5	1.87
I15	14 Nov 2019	20	16.36	83.78	7.9	33.60	8.1	24.6	2.06
I15	14 Nov 2019	21	16.16	83.65	7.9	33.59	8.1	24.6	2.43
I15	14 Nov 2019	22	16.15	83.72	7.9	33.58	8.1	24.6	2.61
I15	14 Nov 2019	23	16.00	83.77	7.8	33.59	8.1	24.7	2.32
I15	14 Nov 2019	24	15.74	84.01	7.7	33.59	8.1	24.7	2.23

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I15	14 Nov 2019	25	15.63	84.35	7.6	33.59	8.1	24.8	2.12
I15	14 Nov 2019	26	15.55	84.66	7.6	33.59	8.1	24.8	1.95
I15	14 Nov 2019	27	15.56	84.72	7.6	33.59	8.1	24.8	1.91
I15	14 Nov 2019	28	15.55	84.70	7.6	33.59	8.1	24.8	1.84
I15	14 Nov 2019	29	15.55	84.77	7.6	33.59	8.1	24.8	1.79
I15	14 Nov 2019	30	15.55	84.75	7.5	33.59	8.1	24.8	1.75
I15	14 Nov 2019	31	15.55	84.75	7.5	33.59	8.1	24.8	1.79
I16	14 Nov 2019	1	17.91	83.74	8.2	33.61	8.2	24.2	0.63
I16	14 Nov 2019	2	17.85	83.75	8.2	33.61	8.2	24.2	0.65
I16	14 Nov 2019	3	17.82	83.54	8.2	33.61	8.2	24.3	0.71
I16	14 Nov 2019	4	17.80	83.45	8.2	33.61	8.2	24.3	0.78
I16	14 Nov 2019	5	17.78	83.28	8.2	33.60	8.2	24.3	0.92
I16	14 Nov 2019	6	17.78	83.11	8.2	33.60	8.2	24.3	1.01
I16	14 Nov 2019	7	17.78	83.08	8.2	33.60	8.2	24.3	1.10
I16	14 Nov 2019	8	17.78	83.11	8.2	33.60	8.2	24.3	1.15
I16	14 Nov 2019	9	17.78	83.17	8.2	33.60	8.2	24.3	1.21
I16	14 Nov 2019	10	17.77	83.08	8.2	33.60	8.2	24.3	1.29
I16	14 Nov 2019	11	17.75	83.05	8.2	33.60	8.2	24.3	1.43
I16	14 Nov 2019	12	17.75	82.97	8.2	33.60	8.2	24.3	1.62
I16	14 Nov 2019	13	17.73	83.01	8.2	33.60	8.2	24.3	1.69
I16	14 Nov 2019	14	17.66	83.35	8.2	33.60	8.2	24.3	1.71
I16	14 Nov 2019	15	17.48	83.74	8.1	33.61	8.2	24.3	1.73
I16	14 Nov 2019	16	17.16	83.76	8.1	33.60	8.2	24.4	1.82
I16	14 Nov 2019	17	16.89	83.72	8.1	33.59	8.2	24.5	1.95
I16	14 Nov 2019	18	16.82	83.69	8.0	33.59	8.1	24.5	2.07
I16	14 Nov 2019	19	16.64	83.71	8.0	33.58	8.1	24.5	2.12
I16	14 Nov 2019	20	16.62	83.78	8.0	33.58	8.1	24.5	2.12
I16	14 Nov 2019	21	16.38	83.67	7.9	33.60	8.1	24.6	2.17
I16	14 Nov 2019	22	15.99	84.08	7.7	33.60	8.1	24.7	2.10
I16	14 Nov 2019	23	15.64	84.79	7.6	33.60	8.1	24.8	1.82
I16	14 Nov 2019	24	15.60	84.88	7.6	33.59	8.1	24.8	1.68
I16	14 Nov 2019	25	15.59	84.80	7.6	33.59	8.1	24.8	1.71
I16	14 Nov 2019	26	15.58	84.74	7.6	33.59	8.1	24.8	1.76
I16	14 Nov 2019	27	15.58	84.79	7.6	33.59	8.1	24.8	1.74
I16	14 Nov 2019	28	15.57	84.79	7.6	33.59	8.1	24.8	1.74
I17	14 Nov 2019	1	17.78	82.92	8.3	33.60	8.2	24.3	0.83
I17	14 Nov 2019	2	17.78	83.08	8.3	33.60	8.2	24.3	0.83
I17	14 Nov 2019	3	17.75	83.03	8.3	33.60	8.2	24.3	0.88
I17	14 Nov 2019	4	17.74	82.98	8.3	33.60	8.2	24.3	0.93
I17	14 Nov 2019	5	17.74	82.92	8.3	33.60	8.2	24.3	1.03
I17	14 Nov 2019	6	17.73	82.87	8.2	33.60	8.2	24.3	1.06
I17	14 Nov 2019	7	17.73	82.96	8.3	33.60	8.2	24.3	1.22
I17	14 Nov 2019	8	17.73	82.96	8.2	33.60	8.2	24.3	1.30
I17	14 Nov 2019	9	17.72	82.98	8.2	33.60	8.2	24.3	1.42
I17	14 Nov 2019	10	17.73	83.04	8.3	33.60	8.2	24.3	1.50
I17	14 Nov 2019	11	17.72	83.01	8.2	33.60	8.2	24.3	1.52
I17	14 Nov 2019	12	17.72	83.10	8.3	33.60	8.2	24.3	1.58
I17	14 Nov 2019	13	17.72	83.04	8.2	33.60	8.2	24.3	1.59
I17	14 Nov 2019	14	17.69	83.00	8.2	33.60	8.2	24.3	1.63
I17	14 Nov 2019	15	17.66	83.12	8.2	33.60	8.2	24.3	1.68
I17	14 Nov 2019	16	17.64	83.17	8.2	33.60	8.2	24.3	1.76
I17	14 Nov 2019	17	17.63	83.12	8.2	33.60	8.2	24.3	1.72
I17	14 Nov 2019	18	17.61	83.11	8.2	33.60	8.2	24.3	1.85

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I17	14 Nov 2019	19	17.52	83.19	8.2	33.60	8.2	24.3	1.86
I17	14 Nov 2019	20	17.37	83.48	8.1	33.60	8.2	24.4	1.84
I17	14 Nov 2019	21	17.17	83.95	8.1	33.60	8.2	24.4	1.79
I17	14 Nov 2019	22	16.88	83.86	7.9	33.60	8.1	24.5	1.89
I17	14 Nov 2019	23	15.93	83.94	7.7	33.63	8.1	24.7	1.97
I17	14 Nov 2019	24	15.63	84.53	7.6	33.59	8.1	24.7	1.91
I17	14 Nov 2019	25	15.63	84.67	7.6	33.59	8.1	24.7	1.86
I18	14 Nov 2019	1	17.58	77.52	8.3	33.60	8.2	24.3	1.35
I18	14 Nov 2019	2	17.54	77.37	8.3	33.61	8.2	24.3	1.42
I18	14 Nov 2019	3	17.51	77.09	8.3	33.60	8.2	24.3	1.72
I18	14 Nov 2019	4	17.49	76.90	8.3	33.60	8.2	24.3	2.04
I18	14 Nov 2019	5	17.48	76.92	8.3	33.60	8.2	24.3	2.36
I18	14 Nov 2019	6	17.46	77.22	8.3	33.60	8.2	24.3	2.57
I18	14 Nov 2019	7	17.44	77.57	8.3	33.60	8.2	24.3	2.62
I18	14 Nov 2019	8	17.42	78.25	8.3	33.60	8.2	24.3	2.64
I18	14 Nov 2019	9	17.35	78.99	8.2	33.60	8.2	24.4	2.68
I18	14 Nov 2019	10	17.26	79.50	8.2	33.60	8.2	24.4	2.73
I18	14 Nov 2019	11	17.17	79.89	8.2	33.59	8.2	24.4	2.77
I18	14 Nov 2019	12	17.06	80.50	8.1	33.59	8.2	24.4	2.74
I18	14 Nov 2019	13	16.78	80.91	8.0	33.58	8.1	24.5	2.56
I18	14 Nov 2019	14	16.36	82.60	7.9	33.57	8.1	24.6	2.32
I18	14 Nov 2019	15	16.30	82.75	7.8	33.59	8.1	24.6	2.29
I18	14 Nov 2019	16	16.15	82.76	7.7	33.60	8.1	24.6	2.43
I18	14 Nov 2019	17	15.85	82.92	7.6	33.60	8.1	24.7	2.40
I18	14 Nov 2019	18	15.69	83.74	7.6	33.59	8.1	24.7	1.93
I18	14 Nov 2019	19	15.67	84.01	7.6	33.59	8.1	24.7	1.77
I2	13 Nov 2019	1	18.27	86.87	8.0	33.61	8.1	24.1	0.31
I2	13 Nov 2019	2	18.27	86.84	8.0	33.61	8.1	24.1	0.31
I2	13 Nov 2019	3	18.27	86.77	8.0	33.61	8.1	24.1	0.31
I2	13 Nov 2019	4	18.27	86.88	8.0	33.61	8.1	24.1	0.32
I2	13 Nov 2019	5	18.27	86.81	8.0	33.61	8.1	24.1	0.33
I2	13 Nov 2019	6	18.27	86.84	8.0	33.61	8.1	24.1	0.34
I2	13 Nov 2019	7	18.27	86.73	8.0	33.61	8.1	24.1	0.35
I2	13 Nov 2019	8	18.25	86.78	8.0	33.61	8.1	24.1	0.37
I2	13 Nov 2019	9	18.25	86.77	8.0	33.61	8.1	24.1	0.39
I2	13 Nov 2019	10	18.24	86.77	8.0	33.61	8.1	24.1	0.39
I2	13 Nov 2019	11	18.22	86.73	8.0	33.61	8.1	24.2	0.44
I2	13 Nov 2019	12	18.22	86.76	8.0	33.61	8.1	24.2	0.43
I2	13 Nov 2019	13	18.19	86.78	7.9	33.61	8.1	24.2	0.46
I2	13 Nov 2019	14	17.54	86.39	8.0	33.62	8.1	24.3	0.59
I2	13 Nov 2019	15	17.32	86.13	8.0	33.58	8.1	24.4	0.72
I2	13 Nov 2019	16	16.72	85.38	8.0	33.58	8.1	24.5	0.91
I2	13 Nov 2019	17	16.37	85.63	7.8	33.59	8.1	24.6	0.96
I2	13 Nov 2019	18	15.83	85.62	7.7	33.58	8.1	24.7	1.02
I2	13 Nov 2019	19	15.89	85.76	7.6	33.57	8.1	24.7	1.01
I2	13 Nov 2019	20	15.52	85.57	7.5	33.59	8.1	24.8	1.09
I2	13 Nov 2019	21	15.44	85.19	7.4	33.59	8.1	24.8	1.18
I2	13 Nov 2019	22	15.43	85.05	7.4	33.59	8.1	24.8	1.28
I2	13 Nov 2019	23	15.43	85.08	7.4	33.59	8.1	24.8	1.25
I2	13 Nov 2019	24	15.43	85.00	7.5	33.59	8.1	24.8	1.22
I2	13 Nov 2019	25	15.43	85.15	7.4	33.59	8.1	24.8	1.27
I2	13 Nov 2019	26	15.42	85.17	7.5	33.59	8.1	24.8	1.24
I2	13 Nov 2019	27	15.42	85.28	7.5	33.59	8.1	24.8	1.23

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I2	13 Nov 2019	28	15.41	85.25	7.4	33.59	8.1	24.8	1.24
I2	13 Nov 2019	29	15.41	85.41	7.4	33.60	8.0	24.8	1.25
I2	13 Nov 2019	30	15.41	85.36	7.4	33.60	8.0	24.8	1.25
I2	13 Nov 2019	31	15.40	85.20	7.4	33.60	8.0	24.8	1.22
I2	13 Nov 2019	32	15.40	85.37	7.4	33.60	8.0	24.8	1.20
I20	14 Nov 2019	1	17.81	82.01	8.3	33.61	8.2	24.3	0.72
I20	14 Nov 2019	2	17.80	83.41	8.3	33.61	8.2	24.3	0.73
I20	14 Nov 2019	3	17.80	83.75	8.3	33.61	8.2	24.3	0.75
I20	14 Nov 2019	4	17.80	83.64	8.3	33.61	8.2	24.3	0.79
I20	14 Nov 2019	5	17.79	83.67	8.3	33.61	8.2	24.3	0.89
I20	14 Nov 2019	6	17.79	83.67	8.3	33.61	8.2	24.3	0.96
I20	14 Nov 2019	7	17.78	83.72	8.3	33.61	8.2	24.3	1.01
I20	14 Nov 2019	8	17.78	83.65	8.3	33.61	8.2	24.3	1.08
I20	14 Nov 2019	9	17.70	83.55	8.2	33.62	8.2	24.3	1.22
I20	14 Nov 2019	10	17.47	83.59	8.2	33.60	8.2	24.3	1.34
I20	14 Nov 2019	11	17.14	83.89	8.3	33.59	8.1	24.4	1.42
I20	14 Nov 2019	12	16.96	83.95	8.3	33.58	8.1	24.4	1.42
I20	14 Nov 2019	13	16.90	84.05	8.3	33.57	8.1	24.4	1.47
I20	14 Nov 2019	14	16.83	84.03	8.3	33.57	8.1	24.5	1.47
I20	14 Nov 2019	15	16.75	83.85	8.3	33.57	8.1	24.5	1.65
I20	14 Nov 2019	16	16.64	83.82	8.2	33.57	8.1	24.5	1.60
I20	14 Nov 2019	17	16.50	83.56	8.1	33.57	8.1	24.5	1.80
I20	14 Nov 2019	18	16.33	83.07	8.1	33.57	8.1	24.6	1.93
I20	14 Nov 2019	19	16.14	83.14	8.0	33.57	8.1	24.6	2.09
I20	14 Nov 2019	20	16.08	82.94	8.0	33.57	8.1	24.6	2.23
I20	14 Nov 2019	21	15.95	82.99	7.9	33.58	8.1	24.7	2.26
I20	14 Nov 2019	22	15.80	83.13	7.8	33.57	8.1	24.7	2.27
I20	14 Nov 2019	23	15.79	83.18	7.8	33.57	8.1	24.7	2.30
I20	14 Nov 2019	24	15.77	83.29	7.8	33.57	8.1	24.7	2.30
I20	14 Nov 2019	25	15.76	83.41	7.8	33.57	8.1	24.7	2.25
I20	14 Nov 2019	26	15.73	83.60	7.8	33.58	8.1	24.7	2.12
I20	14 Nov 2019	27	15.73	83.81	7.7	33.58	8.1	24.7	2.07
I20	14 Nov 2019	28	15.36	85.21	7.3	33.61	8.1	24.8	1.58
I20	14 Nov 2019	29	15.20	86.03	7.1	33.60	8.0	24.9	1.12
I20	14 Nov 2019	30	15.08	86.49	7.0	33.60	8.0	24.9	0.86
I20	14 Nov 2019	31	14.96	86.76	7.0	33.60	8.0	24.9	0.74
I20	14 Nov 2019	32	14.96	86.73	7.0	33.59	8.0	24.9	0.71
I20	14 Nov 2019	33	14.95	86.74	7.0	33.59	8.0	24.9	0.68
I20	14 Nov 2019	34	14.93	86.81	7.0	33.60	8.0	24.9	0.63
I20	14 Nov 2019	35	14.80	86.82	6.9	33.61	8.0	24.9	0.60
I20	14 Nov 2019	36	14.60	87.01	6.9	33.60	8.0	25.0	0.62
I20	14 Nov 2019	37	14.57	87.11	6.9	33.59	8.0	25.0	0.53
I20	14 Nov 2019	38	14.54	87.14	6.9	33.59	8.0	25.0	0.59
I20	14 Nov 2019	39	14.52	87.14	6.9	33.59	8.0	25.0	0.51
I20	14 Nov 2019	40	14.45	87.15	6.7	33.59	8.0	25.0	0.51
I20	14 Nov 2019	41	14.38	87.15	6.8	33.59	8.0	25.0	0.49
I20	14 Nov 2019	42	14.39	87.17	6.8	33.59	8.0	25.0	0.48
I20	14 Nov 2019	43	14.34	87.03	6.8	33.59	8.0	25.0	0.48
I20	14 Nov 2019	44	14.33	87.13	6.7	33.59	8.0	25.0	0.48
I20	14 Nov 2019	45	14.32	87.12	6.7	33.59	8.0	25.0	0.47
I20	14 Nov 2019	46	14.28	87.04	6.7	33.60	8.0	25.0	0.47
I20	14 Nov 2019	47	14.25	87.05	6.6	33.60	8.0	25.1	0.47
I20	14 Nov 2019	48	14.21	86.97	6.6	33.60	8.0	25.1	0.46
I20	14 Nov 2019	49	14.11	86.91	6.5	33.61	8.0	25.1	0.45

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I20	14 Nov 2019	50	14.04	86.83	6.4	33.61	8.0	25.1	0.47
I20	14 Nov 2019	51	13.98	86.71	6.4	33.61	8.0	25.1	0.46
I20	14 Nov 2019	52	13.92	86.68	6.3	33.61	8.0	25.1	0.43
I20	14 Nov 2019	53	13.87	86.62	6.2	33.61	8.0	25.1	0.41
I20	14 Nov 2019	54	13.68	86.45	6.1	33.63	8.0	25.2	0.40
I20	14 Nov 2019	55	13.55	86.28	6.0	33.63	8.0	25.2	0.39
I21	14 Nov 2019	1	17.92	85.23	8.1	33.61	8.2	24.2	0.47
I21	14 Nov 2019	2	17.92	85.28	8.1	33.61	8.2	24.2	0.47
I21	14 Nov 2019	3	17.91	85.44	8.1	33.61	8.2	24.2	0.49
I21	14 Nov 2019	4	17.91	85.47	8.1	33.61	8.2	24.2	0.51
I21	14 Nov 2019	5	17.91	85.46	8.1	33.61	8.2	24.2	0.52
I21	14 Nov 2019	6	17.91	85.35	8.1	33.61	8.2	24.2	0.55
I21	14 Nov 2019	7	17.90	85.28	8.1	33.61	8.2	24.2	0.58
I21	14 Nov 2019	8	17.90	85.40	8.1	33.61	8.2	24.2	0.62
I21	14 Nov 2019	9	17.90	85.41	8.1	33.61	8.2	24.2	0.66
I21	14 Nov 2019	10	17.90	85.42	8.1	33.61	8.2	24.2	0.67
I21	14 Nov 2019	11	17.89	85.25	8.1	33.61	8.2	24.2	0.71
I21	14 Nov 2019	12	17.89	85.24	8.1	33.61	8.2	24.2	0.76
I21	14 Nov 2019	13	17.81	84.66	8.2	33.61	8.2	24.3	0.91
I21	14 Nov 2019	14	17.72	83.83	8.2	33.60	8.2	24.3	1.18
I21	14 Nov 2019	15	17.63	83.48	8.2	33.61	8.2	24.3	1.33
I21	14 Nov 2019	16	17.24	83.42	8.3	33.60	8.2	24.4	1.40
I21	14 Nov 2019	17	17.03	83.48	8.3	33.58	8.2	24.4	1.53
I21	14 Nov 2019	18	16.87	83.13	8.2	33.59	8.1	24.5	1.69
I21	14 Nov 2019	19	16.41	82.85	8.1	33.58	8.1	24.6	1.92
I21	14 Nov 2019	20	16.25	83.12	7.9	33.58	8.1	24.6	2.03
I21	14 Nov 2019	21	15.94	83.09	7.8	33.59	8.1	24.7	2.16
I21	14 Nov 2019	22	15.83	83.45	7.6	33.58	8.1	24.7	2.20
I21	14 Nov 2019	23	15.60	84.04	7.5	33.59	8.1	24.8	2.01
I21	14 Nov 2019	24	15.55	84.26	7.4	33.58	8.1	24.8	1.78
I21	14 Nov 2019	25	15.47	84.57	7.4	33.59	8.1	24.8	1.65
I21	14 Nov 2019	26	15.35	85.13	7.2	33.60	8.1	24.8	1.53
I21	14 Nov 2019	27	15.14	85.78	7.1	33.60	8.1	24.9	1.23
I21	14 Nov 2019	28	15.11	85.96	7.1	33.59	8.0	24.9	1.07
I21	14 Nov 2019	29	15.08	86.05	7.1	33.60	8.0	24.9	0.98
I21	14 Nov 2019	30	14.99	86.27	7.0	33.60	8.0	24.9	0.90
I21	14 Nov 2019	31	14.95	86.35	7.0	33.60	8.0	24.9	0.82
I21	14 Nov 2019	32	14.94	86.47	7.0	33.60	8.0	24.9	0.80
I21	14 Nov 2019	33	14.92	86.58	7.0	33.60	8.0	24.9	0.75
I21	14 Nov 2019	34	14.91	86.56	7.0	33.60	8.0	24.9	0.73
I21	14 Nov 2019	35	14.89	86.60	7.0	33.60	8.0	24.9	0.70
I21	14 Nov 2019	36	14.88	86.62	7.0	33.60	8.0	24.9	0.69
I21	14 Nov 2019	37	14.88	86.59	7.0	33.60	8.0	24.9	0.70
I21	14 Nov 2019	38	14.87	86.60	6.9	33.60	8.0	24.9	0.68
I21	14 Nov 2019	39	14.67	86.67	6.8	33.61	8.0	25.0	0.62
I21	14 Nov 2019	40	14.56	86.77	6.7	33.61	8.0	25.0	0.56
I21	14 Nov 2019	41	14.40	86.76	6.6	33.60	8.0	25.0	0.51
I22	14 Nov 2019	1	17.87	83.95	8.2	33.61	8.2	24.2	0.70
I22	14 Nov 2019	2	17.87	84.04	8.2	33.61	8.2	24.2	0.69
I22	14 Nov 2019	3	17.86	84.07	8.2	33.61	8.2	24.2	0.71
I22	14 Nov 2019	4	17.85	83.97	8.2	33.61	8.2	24.2	0.80
I22	14 Nov 2019	5	17.85	83.82	8.2	33.61	8.2	24.2	0.86
I22	14 Nov 2019	6	17.84	83.87	8.2	33.61	8.2	24.2	0.91

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I22	14 Nov 2019	7	17.84	83.83	8.2	33.61	8.2	24.2	0.96
I22	14 Nov 2019	8	17.84	83.90	8.2	33.61	8.2	24.2	1.06
I22	14 Nov 2019	9	17.84	83.94	8.2	33.61	8.2	24.2	1.10
I22	14 Nov 2019	10	17.84	83.94	8.2	33.61	8.2	24.2	1.14
I22	14 Nov 2019	11	17.83	83.90	8.2	33.61	8.2	24.2	1.17
I22	14 Nov 2019	12	17.83	83.98	8.2	33.61	8.2	24.2	1.20
I22	14 Nov 2019	13	17.83	83.93	8.2	33.61	8.2	24.2	1.22
I22	14 Nov 2019	14	17.83	83.97	8.2	33.61	8.2	24.2	1.24
I22	14 Nov 2019	15	17.83	83.89	8.2	33.61	8.2	24.2	1.30
I22	14 Nov 2019	16	17.80	83.93	8.2	33.61	8.2	24.3	1.31
I22	14 Nov 2019	17	17.67	83.98	8.2	33.61	8.2	24.3	1.37
I22	14 Nov 2019	18	17.58	84.13	8.2	33.60	8.2	24.3	1.37
I22	14 Nov 2019	19	17.12	83.82	8.1	33.62	8.2	24.4	1.59
I22	14 Nov 2019	20	16.53	83.87	7.9	33.61	8.1	24.6	1.82
I22	14 Nov 2019	21	15.82	84.13	7.8	33.59	8.1	24.7	2.07
I22	14 Nov 2019	22	15.76	84.13	7.7	33.58	8.1	24.7	2.21
I22	14 Nov 2019	23	15.65	83.66	7.7	33.59	8.1	24.7	2.21
I22	14 Nov 2019	24	15.56	84.18	7.6	33.59	8.1	24.8	2.07
I22	14 Nov 2019	25	15.51	84.41	7.6	33.59	8.1	24.8	1.78
I22	14 Nov 2019	26	15.50	84.54	7.6	33.59	8.1	24.8	1.67
I22	14 Nov 2019	27	15.50	84.55	7.5	33.59	8.1	24.8	1.60
I22	14 Nov 2019	28	15.50	84.52	7.5	33.59	8.1	24.8	1.59
I23	14 Nov 2019	1	17.58	76.30	8.3	33.61	8.2	24.3	1.62
I23	14 Nov 2019	2	17.57	76.19	8.3	33.60	8.2	24.3	1.70
I23	14 Nov 2019	3	17.55	75.83	8.3	33.61	8.2	24.3	1.98
I23	14 Nov 2019	4	17.53	75.80	8.3	33.60	8.2	24.3	2.42
I23	14 Nov 2019	5	17.51	75.75	8.3	33.60	8.2	24.3	2.92
I23	14 Nov 2019	6	17.49	75.56	8.3	33.60	8.2	24.3	3.23
I23	14 Nov 2019	7	17.48	75.95	8.3	33.60	8.2	24.3	3.25
I23	14 Nov 2019	8	17.46	76.60	8.3	33.60	8.2	24.3	3.15
I23	14 Nov 2019	9	17.45	77.12	8.3	33.60	8.2	24.3	3.00
I23	14 Nov 2019	10	17.43	77.68	8.3	33.60	8.2	24.3	2.94
I23	14 Nov 2019	11	17.42	78.09	8.3	33.60	8.2	24.3	2.74
I23	14 Nov 2019	12	17.41	78.55	8.3	33.60	8.2	24.3	2.65
I23	14 Nov 2019	13	17.40	78.75	8.3	33.60	8.2	24.3	2.68
I23	14 Nov 2019	14	17.39	78.90	8.2	33.60	8.2	24.4	2.60
I23	14 Nov 2019	15	17.32	79.76	8.1	33.61	8.2	24.4	2.45
I23	14 Nov 2019	16	16.73	80.90	7.9	33.62	8.1	24.5	2.33
I23	14 Nov 2019	17	16.43	81.84	7.8	33.60	8.1	24.6	2.12
I23	14 Nov 2019	18	16.25	82.29	7.6	33.59	8.1	24.6	2.01
I23	14 Nov 2019	19	16.10	82.38	7.6	33.59	8.1	24.6	1.83
I23	14 Nov 2019	20	15.88	82.47	7.5	33.60	8.1	24.7	1.78
I23	14 Nov 2019	21	15.67	82.45	7.6	33.59	8.1	24.7	1.68
I27	14 Nov 2019	1	17.91	84.17	8.2	33.61	8.2	24.2	0.62
I27	14 Nov 2019	2	17.91	84.22	8.2	33.61	8.2	24.2	0.64
I27	14 Nov 2019	3	17.90	84.24	8.2	33.61	8.2	24.2	0.67
I27	14 Nov 2019	4	17.90	84.22	8.2	33.61	8.2	24.2	0.71
I27	14 Nov 2019	5	17.89	84.22	8.2	33.61	8.2	24.2	0.75
I27	14 Nov 2019	6	17.89	84.07	8.2	33.61	8.2	24.2	0.84
I27	14 Nov 2019	7	17.88	84.10	8.2	33.61	8.2	24.2	0.89
I27	14 Nov 2019	8	17.88	84.07	8.2	33.61	8.2	24.2	0.99
I27	14 Nov 2019	9	17.87	84.10	8.2	33.61	8.2	24.2	0.98
I27	14 Nov 2019	10	17.86	84.16	8.2	33.61	8.2	24.2	1.03

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I27	14 Nov 2019	11	17.83	84.20	8.2	33.61	8.2	24.3	1.10
I27	14 Nov 2019	12	17.71	83.86	8.2	33.61	8.2	24.3	1.25
I27	14 Nov 2019	13	17.58	83.19	8.2	33.60	8.2	24.3	1.47
I27	14 Nov 2019	14	17.40	82.87	8.2	33.61	8.2	24.4	1.60
I27	14 Nov 2019	15	16.83	83.01	8.1	33.63	8.2	24.5	1.74
I27	14 Nov 2019	16	16.36	83.56	8.0	33.60	8.1	24.6	1.96
I27	14 Nov 2019	17	16.11	83.59	7.8	33.60	8.1	24.6	2.25
I27	14 Nov 2019	18	15.99	82.72	7.7	33.59	8.1	24.7	2.32
I27	14 Nov 2019	19	15.93	82.68	7.7	33.59	8.1	24.7	2.40
I27	14 Nov 2019	20	15.76	82.86	7.6	33.59	8.1	24.7	2.46
I27	14 Nov 2019	21	15.65	83.28	7.6	33.59	8.1	24.7	2.29
I27	14 Nov 2019	22	15.60	83.36	7.6	33.59	8.1	24.8	2.13
I27	14 Nov 2019	23	15.55	83.53	7.6	33.59	8.1	24.8	2.01
I27	14 Nov 2019	24	15.49	83.71	7.6	33.59	8.1	24.8	1.94
I27	14 Nov 2019	25	15.46	83.85	7.5	33.59	8.1	24.8	1.86
I27	14 Nov 2019	26	15.47	83.76	7.5	33.59	8.1	24.8	1.82
I27	14 Nov 2019	27	15.45	83.63	7.5	33.59	8.1	24.8	1.77
I27	14 Nov 2019	28	15.44	83.55	7.5	33.59	8.1	24.8	1.69
I28	15 Nov 2019	1	16.95	80.73	7.9	33.53	8.1	24.4	1.50
I28	15 Nov 2019	2	16.95	80.01	7.9	33.60	8.1	24.5	1.56
I28	15 Nov 2019	3	16.94	80.87	7.9	33.61	8.1	24.5	1.74
I28	15 Nov 2019	4	16.93	80.76	7.9	33.61	8.1	24.5	2.02
I28	15 Nov 2019	5	16.93	80.70	7.9	33.61	8.1	24.5	2.24
I28	15 Nov 2019	6	16.93	80.81	7.9	33.61	8.1	24.5	2.33
I28	15 Nov 2019	7	16.93	80.62	7.9	33.61	8.1	24.5	2.40
I28	15 Nov 2019	8	16.93	80.71	7.9	33.61	8.1	24.5	2.39
I28	15 Nov 2019	9	16.92	80.51	7.9	33.61	8.1	24.5	2.50
I28	15 Nov 2019	10	16.89	80.54	7.9	33.61	8.1	24.5	2.71
I28	15 Nov 2019	11	16.88	80.57	7.9	33.60	8.1	24.5	2.76
I28	15 Nov 2019	12	16.87	80.64	7.8	33.60	8.1	24.5	2.84
I28	15 Nov 2019	13	16.86	80.55	7.8	33.60	8.1	24.5	2.88
I28	15 Nov 2019	14	16.84	80.78	7.8	33.60	8.1	24.5	2.74
I28	15 Nov 2019	15	16.82	81.30	7.8	33.60	8.1	24.5	2.49
I28	15 Nov 2019	16	16.81	81.41	7.7	33.60	8.1	24.5	2.42
I28	15 Nov 2019	17	16.68	81.52	7.5	33.61	8.1	24.5	2.43
I28	15 Nov 2019	18	16.28	82.36	7.4	33.62	8.1	24.6	2.19
I28	15 Nov 2019	19	15.71	83.75	7.4	33.61	8.1	24.7	1.94
I28	15 Nov 2019	20	15.40	84.56	7.3	33.60	8.1	24.8	1.66
I28	15 Nov 2019	21	15.14	85.84	7.2	33.59	8.1	24.9	1.36
I28	15 Nov 2019	22	15.06	86.36	7.2	33.58	8.1	24.9	1.14
I28	15 Nov 2019	23	15.04	86.43	7.1	33.58	8.1	24.9	1.06
I28	15 Nov 2019	24	14.94	86.59	7.1	33.59	8.1	24.9	0.98
I28	15 Nov 2019	25	14.91	86.68	7.1	33.59	8.1	24.9	0.98
I28	15 Nov 2019	26	14.82	86.82	7.1	33.59	8.1	24.9	0.94
I28	15 Nov 2019	27	14.79	86.85	7.0	33.59	8.1	24.9	0.87
I28	15 Nov 2019	28	14.78	86.92	7.0	33.59	8.1	24.9	0.87
I28	15 Nov 2019	29	14.78	86.89	7.0	33.59	8.1	24.9	0.84
I28	15 Nov 2019	30	14.77	86.93	7.0	33.59	8.1	24.9	0.86
I28	15 Nov 2019	31	14.75	86.89	7.0	33.59	8.1	24.9	0.84
I28	15 Nov 2019	32	14.71	86.97	7.0	33.60	8.1	25.0	0.79
I28	15 Nov 2019	33	14.62	87.03	6.9	33.60	8.1	25.0	0.76
I28	15 Nov 2019	34	14.52	87.12	6.9	33.60	8.0	25.0	0.70
I28	15 Nov 2019	35	14.39	87.18	6.8	33.60	8.0	25.0	0.68
I28	15 Nov 2019	36	14.34	87.17	6.8	33.60	8.0	25.0	0.66

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I28	15 Nov 2019	37	14.31	87.14	6.8	33.60	8.0	25.0	0.62
I28	15 Nov 2019	38	14.29	87.08	6.8	33.59	8.0	25.0	0.64
I28	15 Nov 2019	39	14.25	87.15	6.7	33.60	8.0	25.0	0.60
I28	15 Nov 2019	40	14.25	87.23	6.7	33.59	8.0	25.1	0.59
I28	15 Nov 2019	41	14.23	87.19	6.7	33.60	8.0	25.1	0.58
I28	15 Nov 2019	42	14.01	87.18	6.5	33.62	8.0	25.1	0.56
I28	15 Nov 2019	43	13.83	87.27	6.4	33.62	8.0	25.2	0.55
I28	15 Nov 2019	44	13.77	87.36	6.3	33.62	8.0	25.2	0.56
I28	15 Nov 2019	45	13.50	87.34	6.3	33.63	8.0	25.2	0.58
I28	15 Nov 2019	46	13.32	87.32	6.2	33.63	8.0	25.3	0.63
I28	15 Nov 2019	47	13.21	87.34	6.1	33.64	8.0	25.3	0.60
I28	15 Nov 2019	48	13.16	87.25	6.0	33.64	8.0	25.3	0.59
I28	15 Nov 2019	49	13.10	87.20	5.9	33.65	8.0	25.3	0.57
I28	15 Nov 2019	50	13.08	87.12	5.8	33.65	8.0	25.3	0.55
I28	15 Nov 2019	51	13.07	87.01	5.8	33.65	8.0	25.3	0.54
I28	15 Nov 2019	52	13.00	86.92	5.6	33.67	8.0	25.4	0.51
I28	15 Nov 2019	53	12.87	86.59	5.5	33.68	7.9	25.4	0.49
I28	15 Nov 2019	54	12.79	86.48	5.4	33.69	7.9	25.4	0.47
I28	15 Nov 2019	55	12.73	86.39	5.3	33.69	7.9	25.4	0.47
I29	15 Nov 2019	1	16.81	81.10	7.8	33.60	8.1	24.5	1.36
I29	15 Nov 2019	2	16.80	80.97	7.8	33.60	8.1	24.5	1.55
I29	15 Nov 2019	3	16.78	80.49	7.8	33.60	8.1	24.5	2.00
I29	15 Nov 2019	4	16.73	79.99	7.7	33.61	8.1	24.5	2.68
I29	15 Nov 2019	5	16.56	80.01	7.6	33.61	8.1	24.5	2.81
I29	15 Nov 2019	6	16.46	81.23	7.4	33.60	8.1	24.6	2.53
I29	15 Nov 2019	7	16.22	82.79	7.2	33.61	8.1	24.6	1.96
I29	15 Nov 2019	8	15.77	84.85	7.2	33.61	8.1	24.7	1.35
I29	15 Nov 2019	9	15.70	85.81	7.2	33.59	8.1	24.7	1.03
I29	15 Nov 2019	10	15.66	86.01	7.3	33.59	8.1	24.7	0.96
I29	15 Nov 2019	11	15.60	86.09	7.3	33.59	8.1	24.8	0.98
I29	15 Nov 2019	12	15.49	86.10	7.3	33.59	8.1	24.8	0.94
I29	15 Nov 2019	13	15.45	86.18	7.2	33.59	8.1	24.8	0.96
I29	15 Nov 2019	14	15.43	86.13	7.2	33.59	8.1	24.8	0.95
I29	15 Nov 2019	15	15.39	86.26	7.2	33.59	8.1	24.8	0.92
I29	15 Nov 2019	16	15.37	86.23	7.2	33.59	8.1	24.8	0.94
I29	15 Nov 2019	17	15.24	86.30	7.1	33.60	8.1	24.8	0.90
I29	15 Nov 2019	18	15.16	86.52	7.1	33.59	8.1	24.9	0.90
I29	15 Nov 2019	19	15.14	86.61	7.1	33.59	8.1	24.9	0.89
I29	15 Nov 2019	20	15.14	86.67	7.1	33.59	8.1	24.9	0.86
I29	15 Nov 2019	21	15.11	86.59	7.1	33.59	8.1	24.9	0.86
I29	15 Nov 2019	22	15.05	86.57	7.2	33.59	8.1	24.9	0.93
I29	15 Nov 2019	23	15.01	86.64	7.2	33.59	8.1	24.9	0.91
I29	15 Nov 2019	24	14.95	86.69	7.2	33.58	8.1	24.9	1.02
I29	15 Nov 2019	25	14.92	86.75	7.2	33.58	8.1	24.9	0.89
I29	15 Nov 2019	26	14.90	86.77	7.2	33.58	8.1	24.9	0.85
I29	15 Nov 2019	27	14.88	86.88	7.2	33.58	8.1	24.9	0.82
I29	15 Nov 2019	28	14.86	86.90	7.2	33.58	8.1	24.9	0.81
I29	15 Nov 2019	29	14.85	86.88	7.2	33.58	8.1	24.9	0.80
I29	15 Nov 2019	30	14.82	86.88	7.1	33.59	8.1	24.9	0.80
I29	15 Nov 2019	31	14.78	86.95	7.1	33.59	8.1	24.9	0.77
I29	15 Nov 2019	32	14.71	86.90	7.0	33.59	8.1	24.9	0.77
I29	15 Nov 2019	33	14.66	86.93	7.0	33.59	8.1	25.0	0.71
I29	15 Nov 2019	34	14.62	86.78	6.9	33.59	8.0	25.0	0.69
I29	15 Nov 2019	35	14.48	86.57	6.7	33.61	8.0	25.0	0.66

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I29	15 Nov 2019	36	14.24	86.29	6.5	33.62	8.0	25.1	0.64
I29	15 Nov 2019	37	14.11	85.93	6.5	33.61	8.0	25.1	0.63
I29	15 Nov 2019	38	14.11	85.71	6.4	33.60	8.0	25.1	0.61
I3	13 Nov 2019	1	17.79	81.04	8.4	33.60	8.2	24.2	0.86
I3	13 Nov 2019	2	17.79	82.02	8.4	33.60	8.2	24.3	0.90
I3	13 Nov 2019	3	17.79	82.15	8.4	33.60	8.2	24.3	0.92
I3	13 Nov 2019	4	17.76	82.15	8.4	33.60	8.2	24.3	0.99
I3	13 Nov 2019	5	17.72	82.29	8.4	33.60	8.1	24.3	1.19
I3	13 Nov 2019	6	17.72	82.29	8.4	33.60	8.1	24.3	1.27
I3	13 Nov 2019	7	17.68	82.26	8.4	33.60	8.1	24.3	1.34
I3	13 Nov 2019	8	17.62	82.69	8.4	33.59	8.1	24.3	1.40
I3	13 Nov 2019	9	17.55	83.32	8.4	33.59	8.1	24.3	1.36
I3	13 Nov 2019	10	17.53	83.54	8.3	33.58	8.1	24.3	1.33
I3	13 Nov 2019	11	17.49	83.73	8.3	33.59	8.1	24.3	1.30
I3	13 Nov 2019	12	17.42	84.25	8.3	33.58	8.1	24.3	1.20
I3	13 Nov 2019	13	17.35	85.18	8.2	33.57	8.1	24.3	1.05
I3	13 Nov 2019	14	16.95	86.38	8.2	33.60	8.1	24.4	0.83
I3	13 Nov 2019	15	16.50	86.73	8.2	33.58	8.1	24.5	0.73
I3	13 Nov 2019	16	16.31	86.80	8.2	33.58	8.1	24.6	0.72
I3	13 Nov 2019	17	16.28	86.66	8.1	33.58	8.1	24.6	0.70
I3	13 Nov 2019	18	15.80	85.55	7.8	33.61	8.1	24.7	1.00
I3	13 Nov 2019	19	15.76	84.82	7.7	33.58	8.1	24.7	1.37
I3	13 Nov 2019	20	15.73	84.53	7.7	33.59	8.1	24.7	1.54
I3	13 Nov 2019	21	15.71	84.46	7.6	33.59	8.1	24.7	1.70
I3	13 Nov 2019	22	15.71	84.34	7.6	33.59	8.1	24.7	1.65
I3	13 Nov 2019	23	15.70	84.54	7.6	33.59	8.1	24.7	1.66
I3	13 Nov 2019	24	15.70	84.40	7.6	33.59	8.1	24.7	1.61
I3	13 Nov 2019	25	15.71	84.36	7.6	33.59	8.1	24.7	1.67
I3	13 Nov 2019	26	15.71	84.44	7.6	33.59	8.1	24.7	1.64
I3	13 Nov 2019	27	15.71	84.11	7.6	33.59	8.1	24.7	1.68
I30	15 Nov 2019	1	17.18	82.88	8.2	33.60	8.2	24.4	0.92
I30	15 Nov 2019	2	17.18	82.87	8.2	33.60	8.2	24.4	0.95
I30	15 Nov 2019	3	17.13	82.70	8.2	33.61	8.2	24.4	1.05
I30	15 Nov 2019	4	17.07	82.17	8.1	33.61	8.2	24.4	1.27
I30	15 Nov 2019	5	17.05	81.77	8.1	33.60	8.2	24.4	1.44
I30	15 Nov 2019	6	17.01	81.59	8.1	33.61	8.2	24.4	1.70
I30	15 Nov 2019	7	16.93	81.23	8.0	33.61	8.2	24.5	1.99
I30	15 Nov 2019	8	16.85	80.86	7.9	33.61	8.2	24.5	2.27
I30	15 Nov 2019	9	16.69	80.65	7.8	33.62	8.1	24.5	2.63
I30	15 Nov 2019	10	16.36	81.33	7.6	33.60	8.1	24.6	2.70
I30	15 Nov 2019	11	16.30	82.24	7.4	33.60	8.1	24.6	2.48
I30	15 Nov 2019	12	15.96	83.66	7.3	33.62	8.1	24.7	1.95
I30	15 Nov 2019	13	15.67	85.13	7.3	33.59	8.1	24.7	1.54
I30	15 Nov 2019	14	15.62	85.12	7.3	33.59	8.1	24.7	1.42
I30	15 Nov 2019	15	15.61	84.97	7.3	33.59	8.1	24.8	1.46
I30	15 Nov 2019	16	15.59	85.10	7.3	33.59	8.1	24.8	1.27
I30	15 Nov 2019	17	15.55	85.13	7.3	33.59	8.1	24.8	1.18
I30	15 Nov 2019	18	15.54	85.20	7.3	33.59	8.1	24.8	1.25
I30	15 Nov 2019	19	15.53	85.17	7.3	33.59	8.1	24.8	1.23
I30	15 Nov 2019	20	15.51	85.18	7.3	33.59	8.1	24.8	1.22
I30	15 Nov 2019	21	15.49	85.13	7.3	33.59	8.1	24.8	1.26
I30	15 Nov 2019	22	15.48	85.27	7.3	33.59	8.1	24.8	1.22
I30	15 Nov 2019	23	15.42	85.26	7.3	33.60	8.1	24.8	1.21

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I30	15 Nov 2019	24	15.37	85.46	7.3	33.60	8.1	24.8	1.14
I30	15 Nov 2019	25	15.31	85.60	7.2	33.60	8.1	24.8	1.08
I30	15 Nov 2019	26	15.12	85.73	7.0	33.62	8.1	24.9	0.96
I30	15 Nov 2019	27	14.79	85.55	6.9	33.61	8.1	24.9	0.88
I30	15 Nov 2019	28	14.77	85.32	6.8	33.60	8.0	24.9	0.78
I31	15 Nov 2019	1	17.31	80.15	8.1	33.62	8.2	24.4	1.13
I31	15 Nov 2019	2	17.29	79.89	8.1	33.62	8.2	24.4	1.16
I31	15 Nov 2019	3	17.27	79.93	8.1	33.62	8.2	24.4	1.29
I31	15 Nov 2019	4	17.24	79.84	8.1	33.62	8.2	24.4	1.46
I31	15 Nov 2019	5	17.21	80.01	8.1	33.61	8.2	24.4	1.62
I31	15 Nov 2019	6	17.20	80.27	8.1	33.61	8.2	24.4	1.79
I31	15 Nov 2019	7	17.20	80.27	8.1	33.61	8.2	24.4	1.94
I31	15 Nov 2019	8	17.19	80.45	8.1	33.61	8.2	24.4	2.06
I31	15 Nov 2019	9	17.18	80.60	8.1	33.61	8.2	24.4	2.09
I31	15 Nov 2019	10	17.18	80.62	8.1	33.61	8.2	24.4	2.23
I31	15 Nov 2019	11	17.16	80.66	8.1	33.61	8.2	24.4	2.27
I31	15 Nov 2019	12	17.14	80.90	8.1	33.61	8.2	24.4	2.22
I31	15 Nov 2019	13	17.09	81.19	8.0	33.61	8.2	24.4	2.42
I31	15 Nov 2019	14	16.86	81.52	7.9	33.62	8.2	24.5	2.34
I31	15 Nov 2019	15	16.42	82.28	7.7	33.62	8.1	24.6	2.26
I31	15 Nov 2019	16	16.13	83.25	7.6	33.60	8.1	24.6	2.04
I31	15 Nov 2019	17	15.90	83.98	7.4	33.61	8.1	24.7	1.71
I31	15 Nov 2019	18	15.42	84.59	7.2	33.63	8.1	24.8	1.43
I31	15 Nov 2019	19	15.07	84.72	7.1	33.60	8.1	24.9	1.15
I33	15 Nov 2019	1	16.79	79.26	7.6	33.62	8.1	24.5	2.13
I33	15 Nov 2019	2	16.77	79.03	7.6	33.62	8.1	24.5	2.36
I33	15 Nov 2019	3	16.74	79.31	7.6	33.62	8.1	24.5	2.41
I33	15 Nov 2019	4	16.73	79.71	7.6	33.62	8.1	24.5	2.29
I33	15 Nov 2019	5	16.63	80.25	7.5	33.62	8.1	24.5	2.21
I33	15 Nov 2019	6	16.48	80.89	7.4	33.62	8.1	24.6	2.16
I33	15 Nov 2019	7	16.14	82.02	7.2	33.63	8.1	24.7	1.83
I33	15 Nov 2019	8	15.66	83.66	7.1	33.61	8.1	24.8	1.33
I33	15 Nov 2019	9	15.41	84.59	7.0	33.61	8.1	24.8	1.04
I33	15 Nov 2019	10	15.21	86.03	7.0	33.59	8.1	24.8	0.81
I33	15 Nov 2019	11	15.17	86.32	7.0	33.59	8.1	24.8	0.74
I33	15 Nov 2019	12	15.12	86.31	7.0	33.59	8.0	24.9	0.70
I33	15 Nov 2019	13	15.10	86.45	7.0	33.59	8.0	24.9	0.66
I33	15 Nov 2019	14	15.09	86.59	7.0	33.59	8.0	24.9	0.67
I33	15 Nov 2019	15	15.07	86.57	7.0	33.59	8.0	24.9	0.65
I33	15 Nov 2019	16	15.05	86.53	7.0	33.59	8.0	24.9	0.64
I33	15 Nov 2019	17	15.04	86.59	7.0	33.59	8.0	24.9	0.64
I33	15 Nov 2019	18	15.04	86.59	6.9	33.59	8.0	24.9	0.65
I33	15 Nov 2019	19	15.02	86.55	6.9	33.59	8.0	24.9	0.64
I33	15 Nov 2019	20	15.00	86.53	6.9	33.59	8.0	24.9	0.59
I33	15 Nov 2019	21	14.97	86.44	6.9	33.60	8.0	24.9	0.60
I33	15 Nov 2019	22	14.95	86.41	6.9	33.59	8.0	24.9	0.62
I33	15 Nov 2019	23	14.94	86.38	6.9	33.60	8.0	24.9	0.62
I33	15 Nov 2019	24	14.90	86.39	6.9	33.60	8.0	24.9	0.62
I33	15 Nov 2019	25	14.88	86.39	6.8	33.60	8.0	24.9	0.62
I33	15 Nov 2019	26	14.87	86.44	6.8	33.60	8.0	24.9	0.59
I33	15 Nov 2019	27	14.70	86.46	6.7	33.62	8.0	25.0	0.56
I33	15 Nov 2019	28	14.36	86.04	6.6	33.61	8.0	25.0	0.60
I33	15 Nov 2019	29	14.29	85.65	6.6	33.61	8.0	25.1	0.58

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I33	15 Nov 2019	30	14.23	85.37	6.5	33.60	8.0	25.1	0.54
I34	15 Nov 2019	1	17.04	80.43	8.1	33.61	8.2	24.4	1.74
I34	15 Nov 2019	2	17.04	80.57	8.1	33.61	8.2	24.4	1.83
I34	15 Nov 2019	3	17.02	80.68	8.0	33.62	8.2	24.4	1.95
I34	15 Nov 2019	4	16.98	80.62	8.0	33.62	8.1	24.5	2.06
I34	15 Nov 2019	5	16.91	80.47	8.0	33.62	8.1	24.5	2.16
I34	15 Nov 2019	6	16.77	80.41	7.9	33.62	8.1	24.5	2.35
I34	15 Nov 2019	7	16.70	80.53	7.8	33.61	8.1	24.5	2.54
I34	15 Nov 2019	8	16.68	80.59	7.8	33.61	8.1	24.5	2.68
I34	15 Nov 2019	9	16.66	80.69	7.8	33.61	8.1	24.5	2.64
I34	15 Nov 2019	10	16.65	80.78	7.7	33.61	8.1	24.5	2.65
I34	15 Nov 2019	11	16.58	80.95	7.6	33.62	8.1	24.6	2.48
I34	15 Nov 2019	12	16.33	81.77	7.5	33.61	8.1	24.6	2.20
I34	15 Nov 2019	13	16.25	82.53	7.4	33.61	8.1	24.6	2.07
I34	15 Nov 2019	14	15.99	83.19	7.3	33.61	8.1	24.7	1.74
I34	15 Nov 2019	15	15.69	83.61	7.2	33.61	8.1	24.8	1.40
I34	15 Nov 2019	16	15.48	84.45	7.1	33.61	8.1	24.8	1.14
I34	15 Nov 2019	17	15.26	85.08	7.0	33.60	8.1	24.8	0.92
I34	15 Nov 2019	18	15.06	85.05	7.0	33.60	8.1	24.9	0.75
I34	15 Nov 2019	19	14.95	84.60	6.9	33.60	8.0	24.9	0.67
I35	15 Nov 2019	1	17.38	78.86	8.0	33.63	8.2	24.4	1.18
I35	15 Nov 2019	2	17.37	78.81	8.0	33.63	8.2	24.4	1.22
I35	15 Nov 2019	3	17.32	78.64	8.0	33.63	8.2	24.4	1.47
I35	15 Nov 2019	4	17.30	78.00	8.0	33.63	8.2	24.4	1.91
I35	15 Nov 2019	5	17.28	77.12	8.0	33.63	8.2	24.4	2.52
I35	15 Nov 2019	6	17.27	76.39	7.9	33.63	8.2	24.4	3.00
I35	15 Nov 2019	7	17.27	76.45	7.9	33.63	8.2	24.4	3.27
I35	15 Nov 2019	8	17.26	76.24	7.9	33.63	8.2	24.4	3.32
I35	15 Nov 2019	9	17.24	76.67	7.8	33.63	8.2	24.4	3.26
I35	15 Nov 2019	10	17.21	77.10	7.8	33.63	8.2	24.4	3.31
I35	15 Nov 2019	11	17.17	77.56	7.8	33.63	8.2	24.4	3.33
I35	15 Nov 2019	12	17.12	77.96	7.8	33.63	8.2	24.4	3.11
I35	15 Nov 2019	13	17.06	78.88	7.8	33.62	8.2	24.4	2.86
I35	15 Nov 2019	14	17.01	79.69	7.8	33.62	8.2	24.5	2.53
I35	15 Nov 2019	15	16.84	80.24	7.6	33.62	8.2	24.5	2.22
I35	15 Nov 2019	16	16.45	80.38	7.3	33.64	8.1	24.6	1.93
I35	15 Nov 2019	17	15.51	82.63	7.2	33.66	8.1	24.8	1.51
I35	15 Nov 2019	18	15.22	82.54	7.1	33.60	8.1	24.8	1.21
I35	15 Nov 2019	19	15.21	82.13	7.1	33.59	8.1	24.8	1.09
I36	15 Nov 2019	1	17.43	74.91	8.1	33.62	8.2	24.4	1.29
I36	15 Nov 2019	2	17.42	75.78	8.1	33.62	8.2	24.4	1.37
I36	15 Nov 2019	3	17.37	75.87	8.0	33.63	8.2	24.4	1.61
I36	15 Nov 2019	4	17.21	72.92	7.7	33.62	8.2	24.4	2.36
I36	15 Nov 2019	5	17.12	71.22	7.6	33.61	8.1	24.4	3.84
I36	15 Nov 2019	6	17.08	69.91	7.6	33.60	8.1	24.4	5.92
I36	15 Nov 2019	7	17.04	69.41	7.4	33.60	8.1	24.4	6.23
I36	15 Nov 2019	8	16.80	71.89	7.2	33.62	8.1	24.5	4.29
I36	15 Nov 2019	9	16.46	76.72	7.2	33.62	8.1	24.6	2.67
I36	15 Nov 2019	10	16.30	79.95	7.2	33.60	8.1	24.6	1.78
I36	15 Nov 2019	11	16.27	78.25	7.1	33.59	8.1	24.6	1.56
I37	15 Nov 2019	1	17.38	76.73	7.9	33.64	8.1	24.4	2.31

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I37	15 Nov 2019	2	17.38	76.66	7.9	33.64	8.1	24.4	2.38
I37	15 Nov 2019	3	17.37	76.73	7.9	33.64	8.1	24.4	2.55
I37	15 Nov 2019	4	17.35	76.45	7.9	33.64	8.1	24.4	2.71
I37	15 Nov 2019	5	17.31	76.72	7.9	33.63	8.1	24.4	2.82
I37	15 Nov 2019	6	17.28	76.91	7.9	33.63	8.1	24.4	3.00
I37	15 Nov 2019	7	17.27	76.90	7.9	33.63	8.1	24.4	2.97
I37	15 Nov 2019	8	17.26	76.80	7.8	33.63	8.1	24.4	3.11
I37	15 Nov 2019	9	17.22	76.33	7.7	33.63	8.1	24.4	2.95
I37	15 Nov 2019	10	16.94	75.43	7.5	33.64	8.1	24.5	2.69
I37	15 Nov 2019	11	16.70	75.43	7.4	33.62	8.1	24.5	2.30
I37	15 Nov 2019	12	16.63	74.87	7.3	33.61	8.1	24.5	1.98
I38	15 Nov 2019	1	17.42	78.33	8.1	33.62	8.2	24.4	1.13
I38	15 Nov 2019	2	17.40	78.27	8.1	33.62	8.2	24.4	1.17
I38	15 Nov 2019	3	17.40	78.34	8.1	33.62	8.2	24.4	1.26
I38	15 Nov 2019	4	17.36	78.16	8.1	33.62	8.2	24.4	1.55
I38	15 Nov 2019	5	17.33	77.39	8.1	33.62	8.2	24.4	2.19
I38	15 Nov 2019	6	17.31	76.46	8.1	33.62	8.2	24.4	2.70
I38	15 Nov 2019	7	17.30	76.32	8.0	33.62	8.2	24.4	2.99
I38	15 Nov 2019	8	17.16	76.36	7.7	33.63	8.2	24.4	3.10
I38	15 Nov 2019	9	16.84	73.41	7.2	33.61	8.1	24.5	3.11
I38	15 Nov 2019	10	16.74	70.41	7.0	33.60	8.1	24.5	2.88
I38	15 Nov 2019	11	16.65	69.12	6.9	33.60	8.1	24.5	2.40
I4	13 Nov 2019	1	17.33	78.03	8.4	33.59	8.1	24.4	1.46
I4	13 Nov 2019	2	17.32	78.02	8.3	33.59	8.1	24.4	1.49
I4	13 Nov 2019	3	17.31	77.93	8.3	33.59	8.1	24.4	1.78
I4	13 Nov 2019	4	17.28	77.80	8.4	33.59	8.1	24.4	1.98
I4	13 Nov 2019	5	17.27	77.80	8.3	33.59	8.1	24.4	2.41
I4	13 Nov 2019	6	17.26	77.91	8.3	33.59	8.1	24.4	2.68
I4	13 Nov 2019	7	17.19	78.35	8.2	33.60	8.1	24.4	2.75
I4	13 Nov 2019	8	16.97	78.89	8.1	33.61	8.1	24.5	2.64
I4	13 Nov 2019	9	16.83	80.16	8.0	33.61	8.1	24.5	2.54
I4	13 Nov 2019	10	16.63	81.73	8.0	33.60	8.1	24.5	2.42
I4	13 Nov 2019	11	16.52	82.69	7.9	33.60	8.1	24.6	2.36
I4	13 Nov 2019	12	16.41	83.08	7.9	33.60	8.1	24.6	2.12
I4	13 Nov 2019	13	16.35	82.88	7.8	33.60	8.1	24.6	2.12
I4	13 Nov 2019	14	16.28	82.63	7.8	33.59	8.1	24.6	2.10
I4	13 Nov 2019	15	16.25	82.33	7.8	33.59	8.1	24.6	2.13
I4	13 Nov 2019	16	16.24	82.36	7.8	33.59	8.1	24.6	2.04
I4	13 Nov 2019	17	16.24	82.45	7.8	33.59	8.1	24.6	2.08
I4	13 Nov 2019	18	16.24	82.28	7.7	33.59	8.1	24.6	2.08
I5	13 Nov 2019	1	17.26	74.74	8.3	33.59	8.1	24.4	1.92
I5	13 Nov 2019	2	17.25	75.06	8.3	33.59	8.1	24.4	2.18
I5	13 Nov 2019	3	17.24	74.63	8.3	33.59	8.1	24.4	2.72
I5	13 Nov 2019	4	17.23	74.32	8.3	33.59	8.1	24.4	3.52
I5	13 Nov 2019	5	17.22	74.20	8.3	33.59	8.1	24.4	4.07
I5	13 Nov 2019	6	17.21	74.19	8.3	33.59	8.1	24.4	4.47
I5	13 Nov 2019	7	17.20	74.03	8.2	33.59	8.1	24.4	4.59
I5	13 Nov 2019	8	17.19	74.13	8.2	33.59	8.1	24.4	4.85
I5	13 Nov 2019	9	17.18	74.26	8.2	33.59	8.1	24.4	4.72
I5	13 Nov 2019	10	17.18	74.51	8.2	33.59	8.1	24.4	4.50
I5	13 Nov 2019	11	17.16	75.18	8.1	33.59	8.1	24.4	4.27
I5	13 Nov 2019	12	17.04	76.81	8.0	33.60	8.1	24.4	3.49

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I5	13 Nov 2019	13	16.85	78.65	7.9	33.60	8.1	24.5	3.02
I5	13 Nov 2019	14	16.68	74.75	7.7	33.60	8.1	24.5	2.76
I6	13 Nov 2019	1	17.75	78.60	8.6	33.59	8.2	24.3	1.36
I6	13 Nov 2019	2	17.75	78.71	8.6	33.59	8.2	24.3	1.35
I6	13 Nov 2019	3	17.73	78.83	8.6	33.60	8.2	24.3	1.46
I6	13 Nov 2019	4	17.69	78.86	8.6	33.60	8.2	24.3	1.70
I6	13 Nov 2019	5	17.68	78.69	8.6	33.59	8.2	24.3	1.94
I6	13 Nov 2019	6	17.67	78.77	8.6	33.60	8.2	24.3	2.14
I6	13 Nov 2019	7	17.65	78.98	8.6	33.59	8.2	24.3	2.28
I6	13 Nov 2019	8	17.63	79.51	8.5	33.60	8.2	24.3	2.31
I6	13 Nov 2019	9	17.29	81.60	8.2	33.63	8.2	24.4	1.94
I6	13 Nov 2019	10	16.69	84.99	8.2	33.60	8.1	24.5	1.57
I6	13 Nov 2019	11	16.45	85.01	8.2	33.59	8.1	24.6	1.64
I6	13 Nov 2019	12	16.23	85.35	8.2	33.58	8.1	24.6	1.34
I6	13 Nov 2019	13	16.03	85.22	8.1	33.59	8.1	24.7	1.48
I6	13 Nov 2019	14	15.89	83.58	7.9	33.59	8.1	24.7	2.07
I6	13 Nov 2019	15	15.84	83.11	7.8	33.59	8.1	24.7	2.27
I6	13 Nov 2019	16	15.82	83.30	7.7	33.59	8.1	24.7	2.30
I6	13 Nov 2019	17	15.82	83.51	7.7	33.59	8.1	24.7	2.22
I6	13 Nov 2019	18	15.81	83.56	7.7	33.59	8.1	24.7	2.15
I6	13 Nov 2019	19	15.81	83.53	7.7	33.59	8.1	24.7	2.15
I6	13 Nov 2019	20	15.81	83.49	7.7	33.59	8.1	24.7	2.25
I6	13 Nov 2019	21	15.81	83.43	7.7	33.59	8.1	24.7	2.20
I6	13 Nov 2019	22	15.81	83.50	7.7	33.59	8.1	24.7	2.18
I6	13 Nov 2019	23	15.81	83.67	7.7	33.59	8.1	24.7	2.08
I6	13 Nov 2019	24	15.80	83.78	7.7	33.59	8.1	24.7	2.18
I6	13 Nov 2019	25	15.80	83.72	7.7	33.59	8.1	24.7	2.02
I6	13 Nov 2019	26	15.81	83.74	7.7	33.59	8.1	24.7	1.98
I7	13 Nov 2019	1	18.21	86.62	7.5	33.61	8.1	24.2	0.63
I7	13 Nov 2019	2	18.21	86.63	7.7	33.61	8.1	24.2	0.61
I7	13 Nov 2019	3	18.21	86.44	7.7	33.61	8.1	24.2	0.66
I7	13 Nov 2019	4	18.21	86.55	7.7	33.61	8.1	24.2	0.64
I7	13 Nov 2019	5	18.21	86.62	7.5	33.61	8.1	24.2	0.55
I7	13 Nov 2019	6	18.20	86.57	7.8	33.61	8.1	24.2	0.44
I7	13 Nov 2019	7	18.20	86.50	7.8	33.61	8.1	24.2	0.46
I7	13 Nov 2019	8	18.17	86.51	7.8	33.62	8.1	24.2	0.49
I7	13 Nov 2019	9	18.00	86.01	7.9	33.64	8.1	24.2	0.56
I7	13 Nov 2019	10	17.44	84.78	8.0	33.67	8.1	24.4	0.66
I7	13 Nov 2019	11	17.00	83.72	8.2	33.61	8.1	24.4	0.96
I7	13 Nov 2019	12	16.95	84.21	8.1	33.60	8.1	24.5	1.19
I7	13 Nov 2019	13	16.57	83.83	8.1	33.60	8.1	24.5	1.36
I7	13 Nov 2019	14	16.39	83.58	8.0	33.59	8.1	24.6	1.58
I7	13 Nov 2019	15	16.34	83.87	7.9	33.59	8.1	24.6	1.71
I7	13 Nov 2019	16	15.94	84.11	7.8	33.60	8.1	24.7	1.77
I7	13 Nov 2019	17	15.95	84.20	7.8	33.58	8.1	24.7	1.71
I7	13 Nov 2019	18	15.81	84.38	7.8	33.60	8.1	24.7	1.74
I7	13 Nov 2019	19	15.70	84.64	7.6	33.59	8.1	24.7	1.70
I7	13 Nov 2019	20	15.59	84.91	7.6	33.59	8.1	24.8	1.63
I7	13 Nov 2019	21	15.52	84.92	7.5	33.59	8.1	24.8	1.60
I7	13 Nov 2019	22	15.46	85.18	7.5	33.60	8.0	24.8	1.62
I7	13 Nov 2019	23	15.35	85.18	7.4	33.60	8.0	24.8	1.62
I7	13 Nov 2019	24	15.23	85.46	7.4	33.60	8.0	24.8	1.54
I7	13 Nov 2019	25	15.19	85.69	7.4	33.60	8.0	24.8	1.40

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I7	13 Nov 2019	26	15.14	85.76	7.3	33.60	8.0	24.9	1.36
I7	13 Nov 2019	27	15.11	85.80	7.3	33.60	8.0	24.9	1.26
I7	13 Nov 2019	28	15.05	85.98	7.3	33.60	8.0	24.9	1.19
I7	13 Nov 2019	29	15.00	85.97	7.2	33.60	8.0	24.9	1.13
I7	13 Nov 2019	30	15.00	86.14	7.2	33.60	8.0	24.9	1.13
I7	13 Nov 2019	31	14.98	86.18	7.2	33.60	8.0	24.9	1.06
I7	13 Nov 2019	32	14.92	86.24	7.2	33.60	8.0	24.9	1.14
I7	13 Nov 2019	33	14.91	86.26	7.2	33.60	8.0	24.9	1.00
I7	13 Nov 2019	34	14.85	86.36	7.2	33.60	8.0	24.9	0.96
I7	13 Nov 2019	35	14.80	86.48	7.1	33.60	8.0	24.9	0.89
I7	13 Nov 2019	36	14.76	86.59	7.1	33.60	8.0	24.9	0.87
I7	13 Nov 2019	37	14.75	86.54	7.1	33.60	8.0	24.9	0.90
I7	13 Nov 2019	38	14.72	86.62	7.1	33.60	8.0	25.0	0.82
I7	13 Nov 2019	39	14.70	86.75	7.1	33.60	8.0	25.0	0.81
I7	13 Nov 2019	40	14.65	86.72	7.1	33.60	8.0	25.0	0.80
I7	13 Nov 2019	41	14.63	86.86	7.1	33.60	8.0	25.0	0.77
I7	13 Nov 2019	42	14.60	86.82	7.0	33.60	8.0	25.0	0.89
I7	13 Nov 2019	43	14.57	86.79	7.0	33.61	8.0	25.0	0.75
I7	13 Nov 2019	44	14.52	86.80	6.9	33.61	8.0	25.0	0.74
I7	13 Nov 2019	45	14.50	86.77	6.9	33.61	8.0	25.0	0.71
I7	13 Nov 2019	46	14.50	86.79	6.9	33.61	8.0	25.0	0.69
I7	13 Nov 2019	47	14.49	86.81	6.9	33.61	8.0	25.0	0.69
I7	13 Nov 2019	48	14.46	86.77	6.9	33.61	8.0	25.0	0.66
I7	13 Nov 2019	49	14.43	86.79	6.8	33.61	8.0	25.0	0.66
I7	13 Nov 2019	50	14.41	86.74	6.8	33.61	8.0	25.0	0.63
I7	13 Nov 2019	51	14.36	86.69	6.7	33.61	8.0	25.0	0.61
I7	13 Nov 2019	52	14.33	86.72	6.7	33.61	8.0	25.0	0.60
I8	13 Nov 2019	1	18.22	85.45	8.1	33.61	8.2	24.2	0.46
I8	13 Nov 2019	2	18.21	85.82	8.1	33.61	8.2	24.2	0.47
I8	13 Nov 2019	3	18.16	85.78	8.1	33.61	8.2	24.2	0.50
I8	13 Nov 2019	4	18.16	85.70	8.1	33.61	8.2	24.2	0.52
I8	13 Nov 2019	5	18.08	85.46	8.1	33.62	8.2	24.2	0.54
I8	13 Nov 2019	6	18.03	84.78	8.2	33.61	8.2	24.2	0.61
I8	13 Nov 2019	7	18.02	84.39	8.2	33.61	8.2	24.2	0.67
I8	13 Nov 2019	8	18.00	84.04	8.2	33.61	8.2	24.2	0.73
I8	13 Nov 2019	9	17.99	83.90	8.2	33.61	8.2	24.2	0.80
I8	13 Nov 2019	10	17.99	83.96	8.2	33.61	8.2	24.2	0.85
I8	13 Nov 2019	11	17.97	83.88	8.2	33.61	8.2	24.2	0.91
I8	13 Nov 2019	12	17.97	83.96	8.2	33.61	8.2	24.2	0.94
I8	13 Nov 2019	13	17.78	84.02	8.1	33.62	8.2	24.3	1.08
I8	13 Nov 2019	14	17.25	84.21	8.1	33.60	8.1	24.4	1.36
I8	13 Nov 2019	15	16.83	84.67	8.0	33.61	8.1	24.5	1.48
I8	13 Nov 2019	16	16.62	84.99	8.0	33.58	8.1	24.5	1.48
I8	13 Nov 2019	17	16.31	85.31	7.9	33.60	8.1	24.6	1.45
I8	13 Nov 2019	18	15.91	85.18	7.7	33.60	8.1	24.7	1.50
I8	13 Nov 2019	19	15.61	85.14	7.6	33.59	8.1	24.8	1.47
I8	13 Nov 2019	20	15.53	85.08	7.5	33.59	8.1	24.8	1.43
I8	13 Nov 2019	21	15.50	84.97	7.5	33.59	8.1	24.8	1.58
I8	13 Nov 2019	22	15.43	84.92	7.4	33.59	8.1	24.8	1.52
I8	13 Nov 2019	23	15.39	85.00	7.4	33.59	8.1	24.8	1.47
I8	13 Nov 2019	24	15.38	85.08	7.4	33.59	8.1	24.8	1.43
I8	13 Nov 2019	25	15.38	85.13	7.4	33.59	8.1	24.8	1.39
I8	13 Nov 2019	26	15.38	85.19	7.4	33.60	8.1	24.8	1.42
I8	13 Nov 2019	27	15.37	85.20	7.4	33.60	8.1	24.8	1.42

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I8	13 Nov 2019	28	15.37	85.20	7.4	33.60	8.1	24.8	1.36
I8	13 Nov 2019	29	15.37	85.25	7.4	33.60	8.1	24.8	1.40
I8	13 Nov 2019	30	15.33	85.30	7.3	33.60	8.1	24.8	1.40
I8	13 Nov 2019	31	15.32	85.27	7.3	33.60	8.1	24.8	1.33
I8	13 Nov 2019	32	15.32	85.36	7.3	33.60	8.1	24.8	1.28
I8	13 Nov 2019	33	15.30	85.39	7.3	33.60	8.1	24.8	1.26
I8	13 Nov 2019	34	15.30	85.47	7.3	33.60	8.1	24.8	1.22
I8	13 Nov 2019	35	15.26	85.57	7.3	33.60	8.1	24.8	1.21
I8	13 Nov 2019	36	15.24	85.76	7.3	33.60	8.0	24.8	1.13
I9	13 Nov 2019	1	17.89	79.50	8.6	33.60	8.2	24.2	1.14
I9	13 Nov 2019	2	17.89	79.81	8.6	33.60	8.2	24.2	1.15
I9	13 Nov 2019	3	17.88	79.89	8.6	33.60	8.2	24.2	1.25
I9	13 Nov 2019	4	17.88	79.80	8.6	33.60	8.2	24.2	1.40
I9	13 Nov 2019	5	17.85	79.68	8.6	33.60	8.2	24.2	1.58
I9	13 Nov 2019	6	17.82	79.52	8.6	33.60	8.2	24.2	1.80
I9	13 Nov 2019	7	17.81	79.76	8.6	33.60	8.2	24.2	1.98
I9	13 Nov 2019	8	17.81	79.86	8.6	33.60	8.2	24.2	2.09
I9	13 Nov 2019	9	17.80	79.90	8.6	33.60	8.2	24.3	2.19
I9	13 Nov 2019	10	17.79	80.04	8.6	33.60	8.2	24.3	2.21
I9	13 Nov 2019	11	17.79	80.15	8.6	33.60	8.2	24.3	2.18
I9	13 Nov 2019	12	17.78	80.18	8.6	33.60	8.2	24.3	2.17
I9	13 Nov 2019	13	17.78	80.42	8.6	33.60	8.2	24.3	2.13
I9	13 Nov 2019	14	17.78	80.69	8.6	33.60	8.2	24.3	2.06
I9	13 Nov 2019	15	17.78	80.90	8.5	33.60	8.2	24.3	1.99
I9	13 Nov 2019	16	17.77	81.17	8.5	33.60	8.2	24.3	1.92
I9	13 Nov 2019	17	17.77	81.59	8.5	33.60	8.2	24.3	1.79
I9	13 Nov 2019	18	17.77	81.96	8.4	33.60	8.2	24.3	1.69
I9	13 Nov 2019	19	17.73	82.38	8.3	33.61	8.2	24.3	1.65
I9	13 Nov 2019	20	17.35	83.49	8.3	33.62	8.2	24.4	1.53
I9	13 Nov 2019	21	17.29	84.47	8.2	33.60	8.1	24.4	1.39
I9	13 Nov 2019	22	16.58	85.14	8.1	33.63	8.1	24.6	1.43
I9	13 Nov 2019	23	16.27	84.87	8.1	33.59	8.1	24.6	1.54
I9	13 Nov 2019	24	16.02	84.51	8.0	33.60	8.1	24.7	1.73
I9	13 Nov 2019	25	15.93	83.95	7.9	33.59	8.1	24.7	2.04
I9	13 Nov 2019	26	15.71	83.87	7.7	33.59	8.1	24.7	2.13
I9	13 Nov 2019	27	15.70	84.09	7.7	33.59	8.1	24.7	2.10
I9	13 Nov 2019	28	15.70	84.22	7.7	33.59	8.1	24.7	2.03
I9	13 Nov 2019	29	15.68	84.21	7.6	33.59	8.1	24.7	2.07

NA = not available

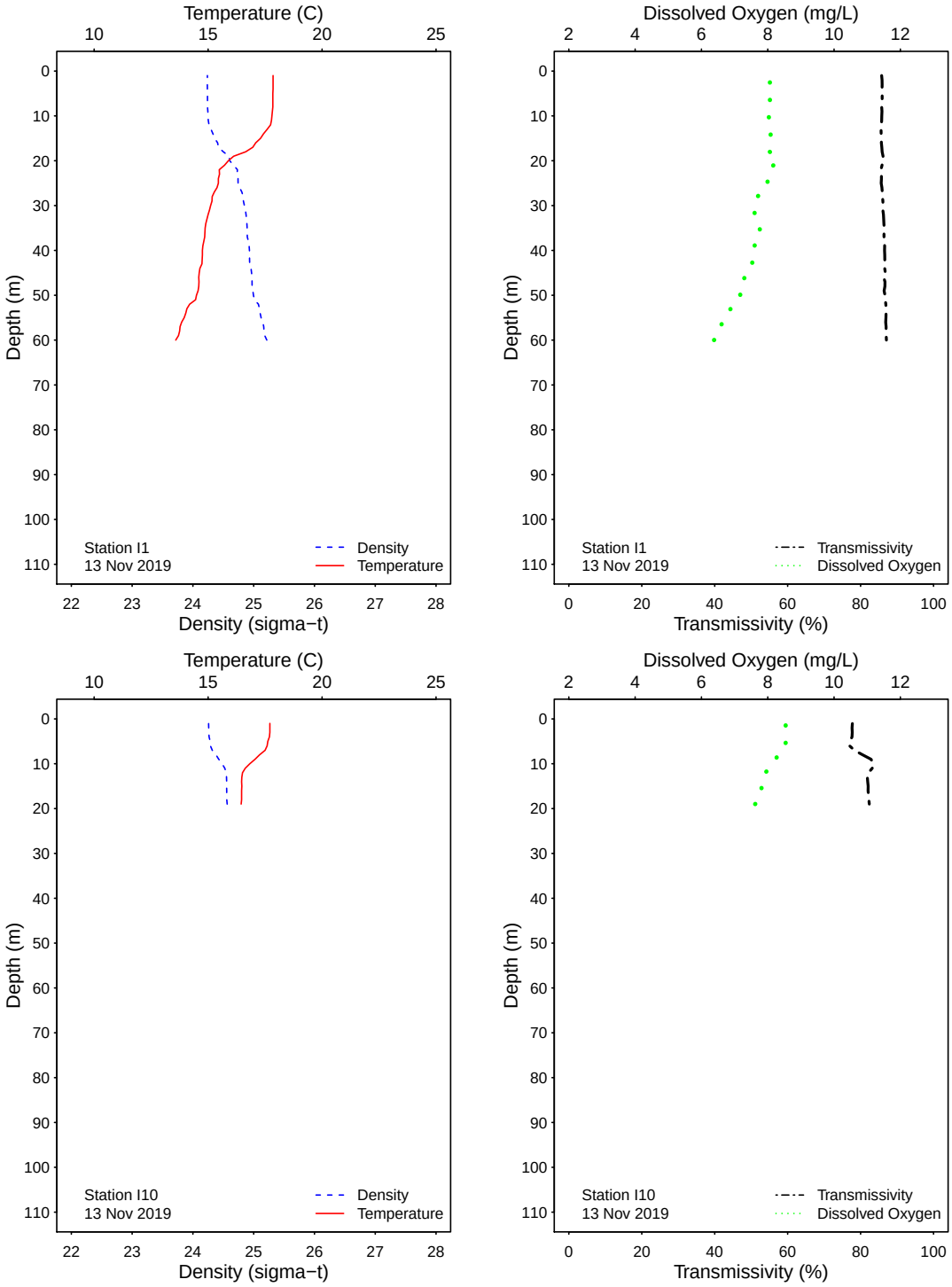

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

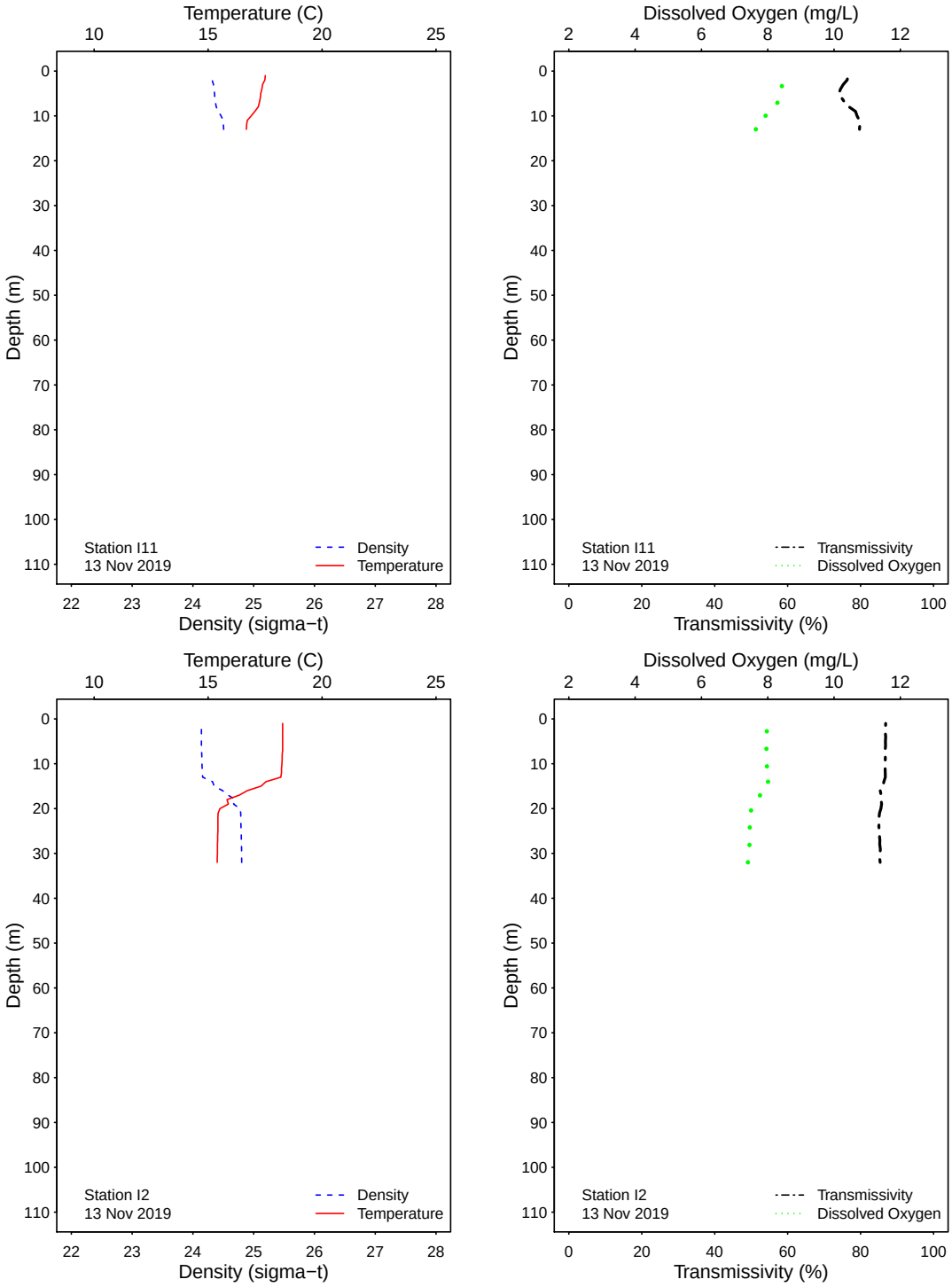

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

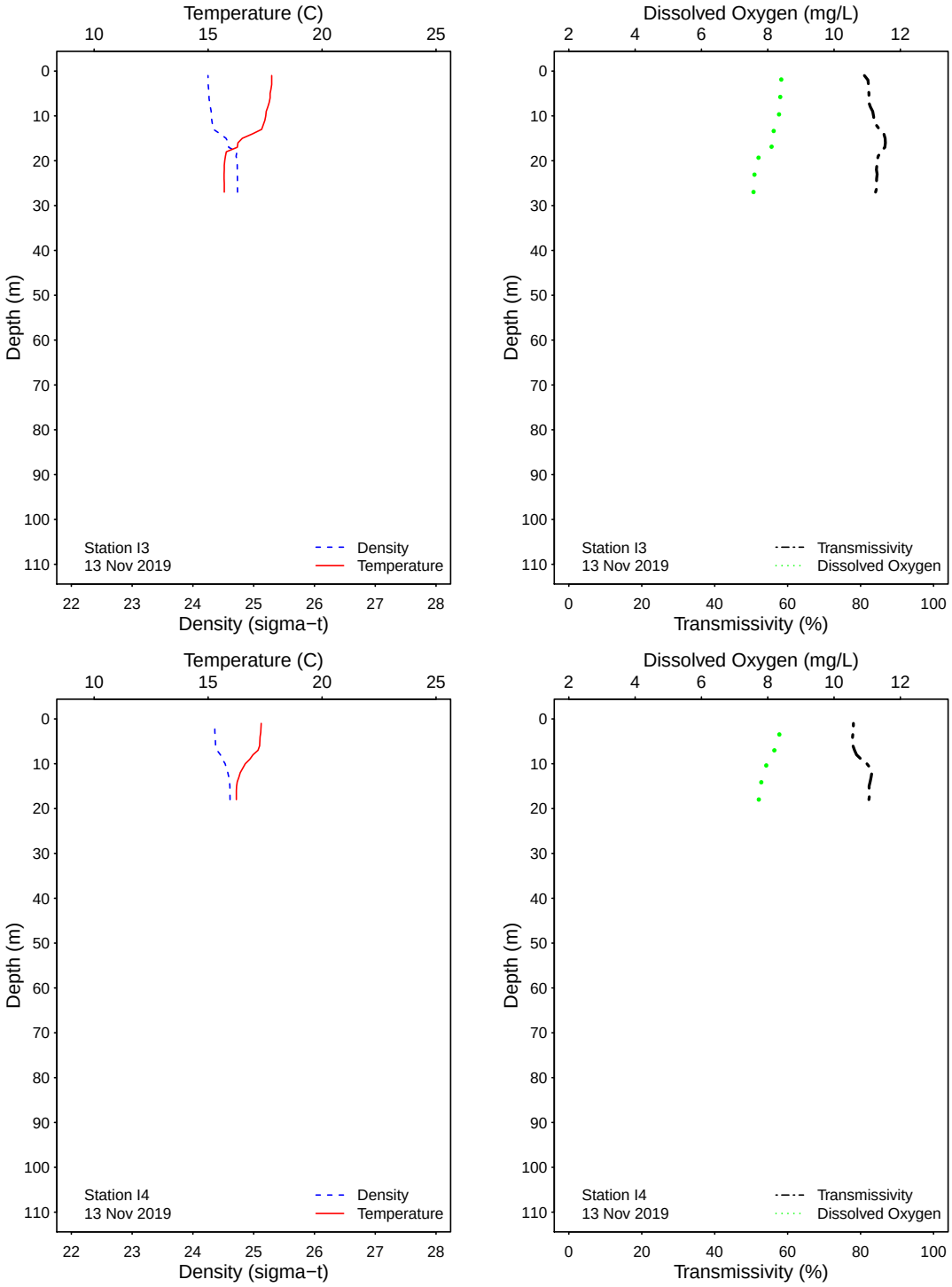

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

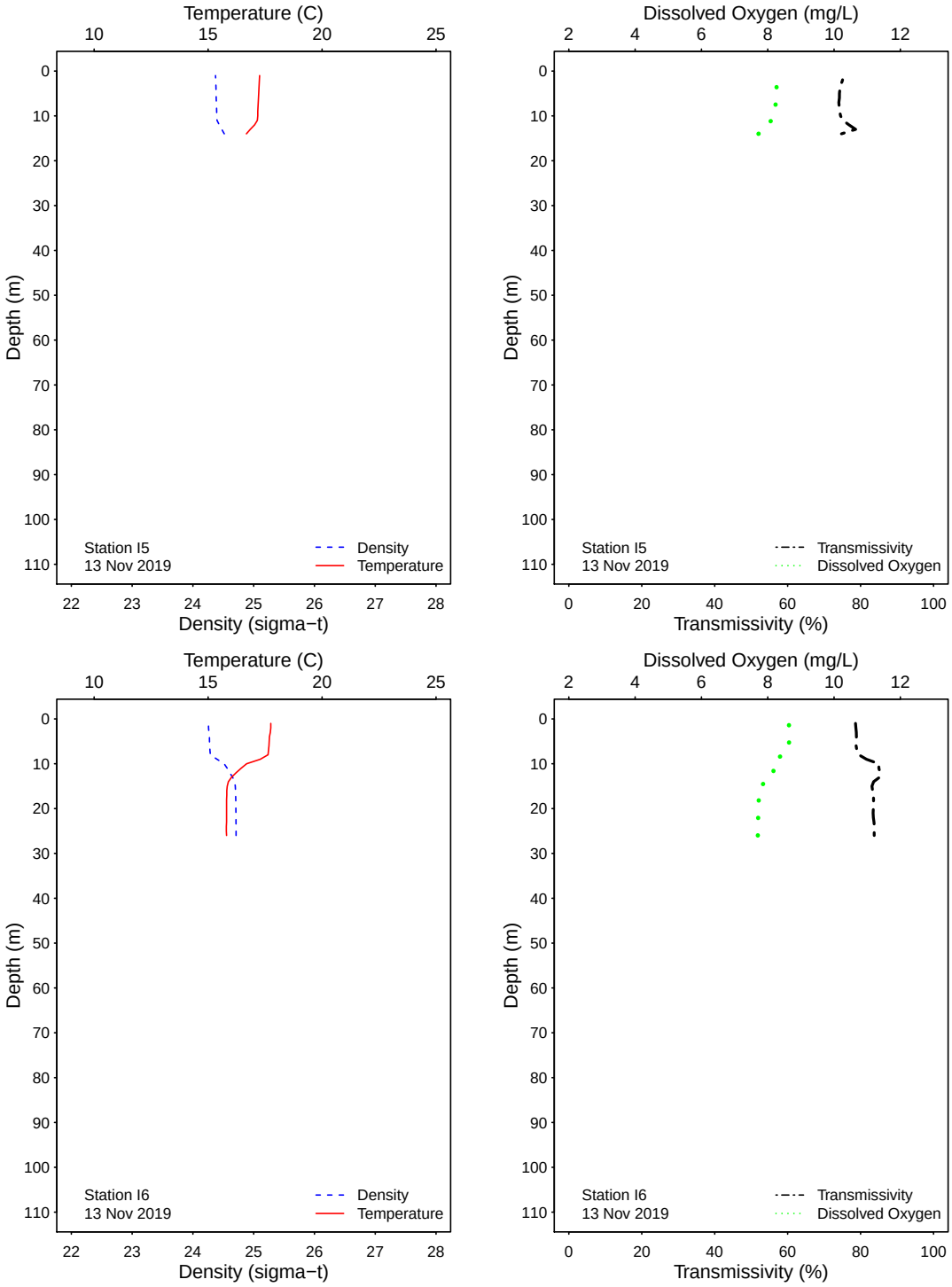

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

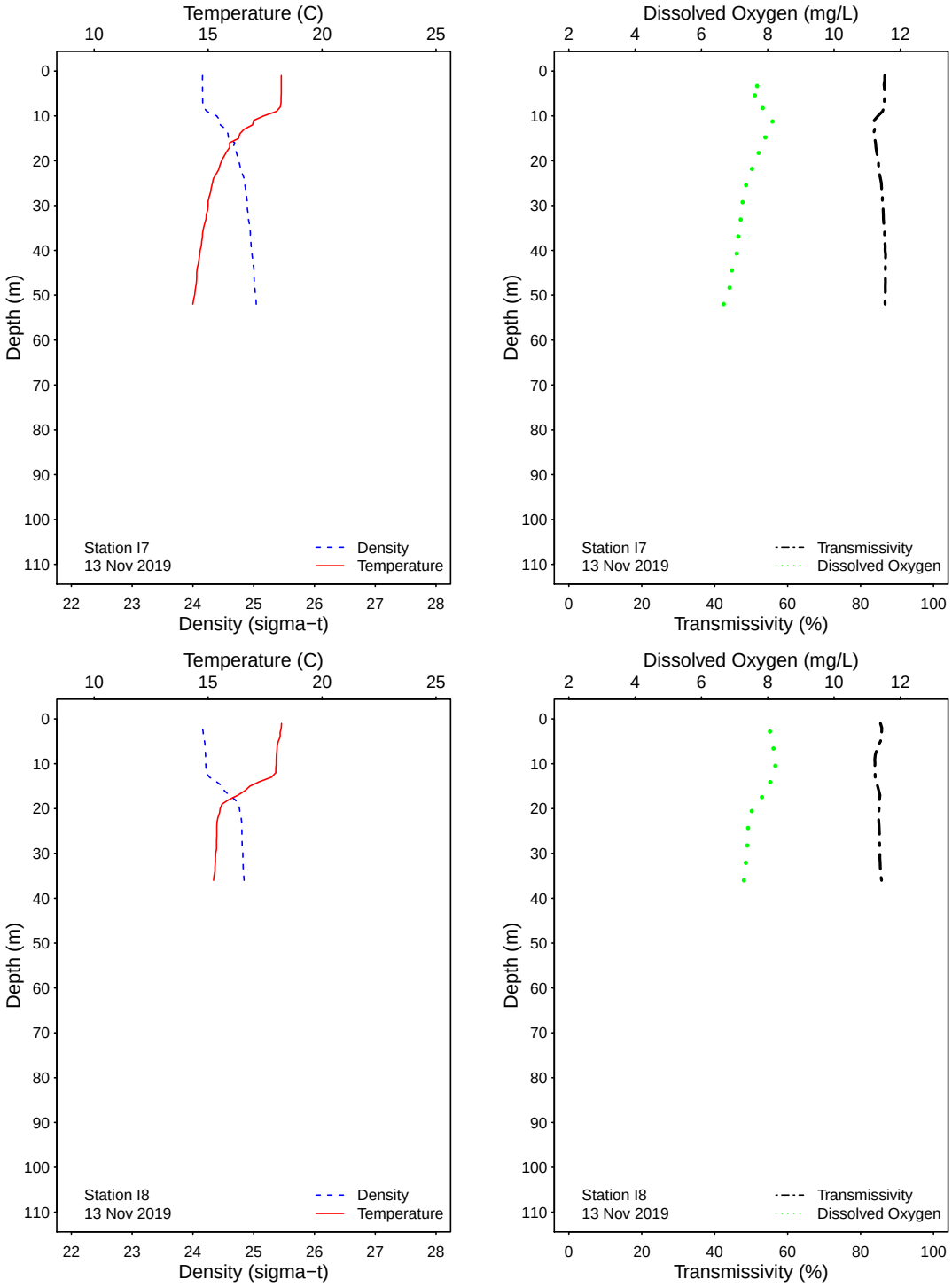

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

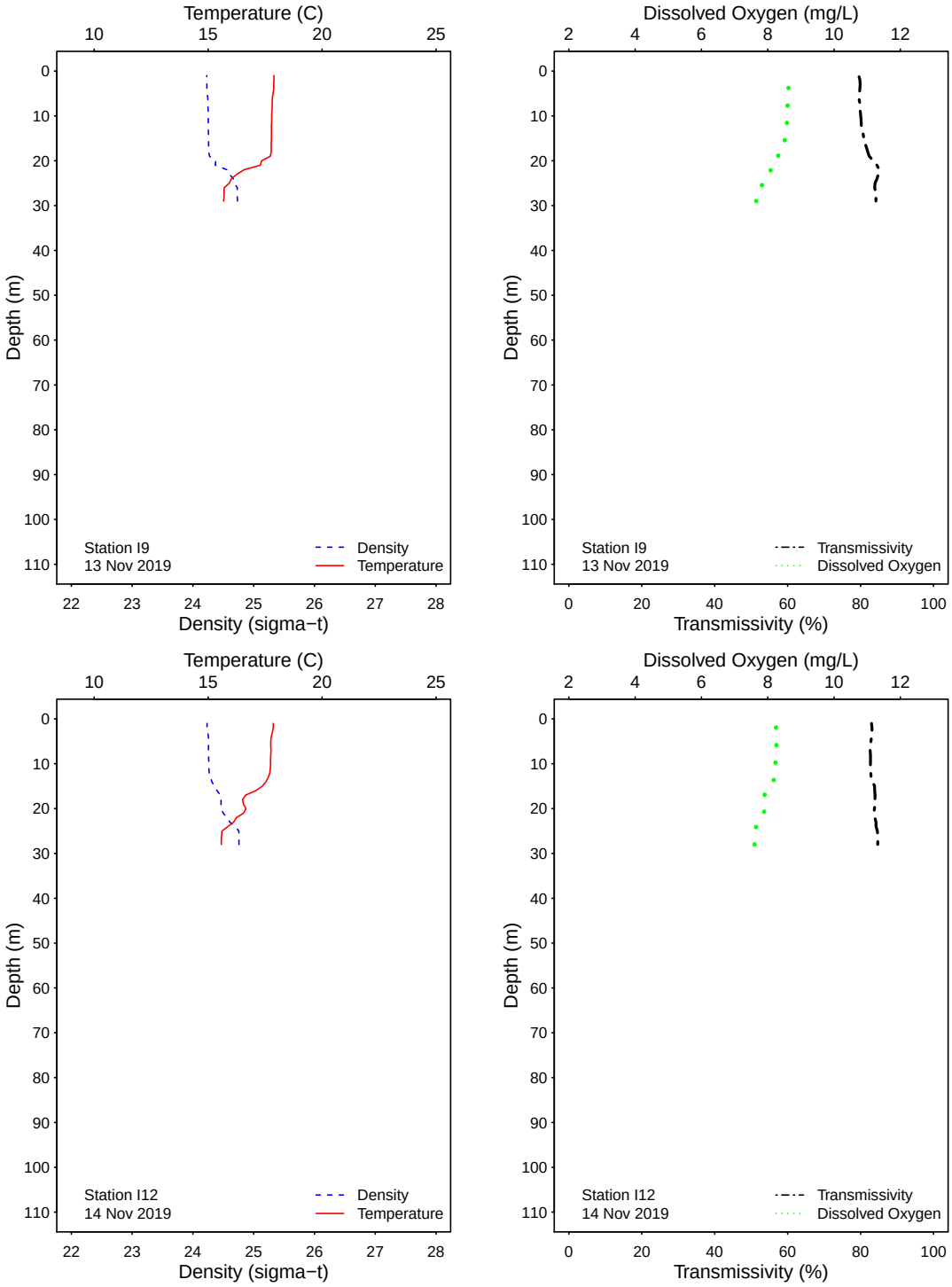

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

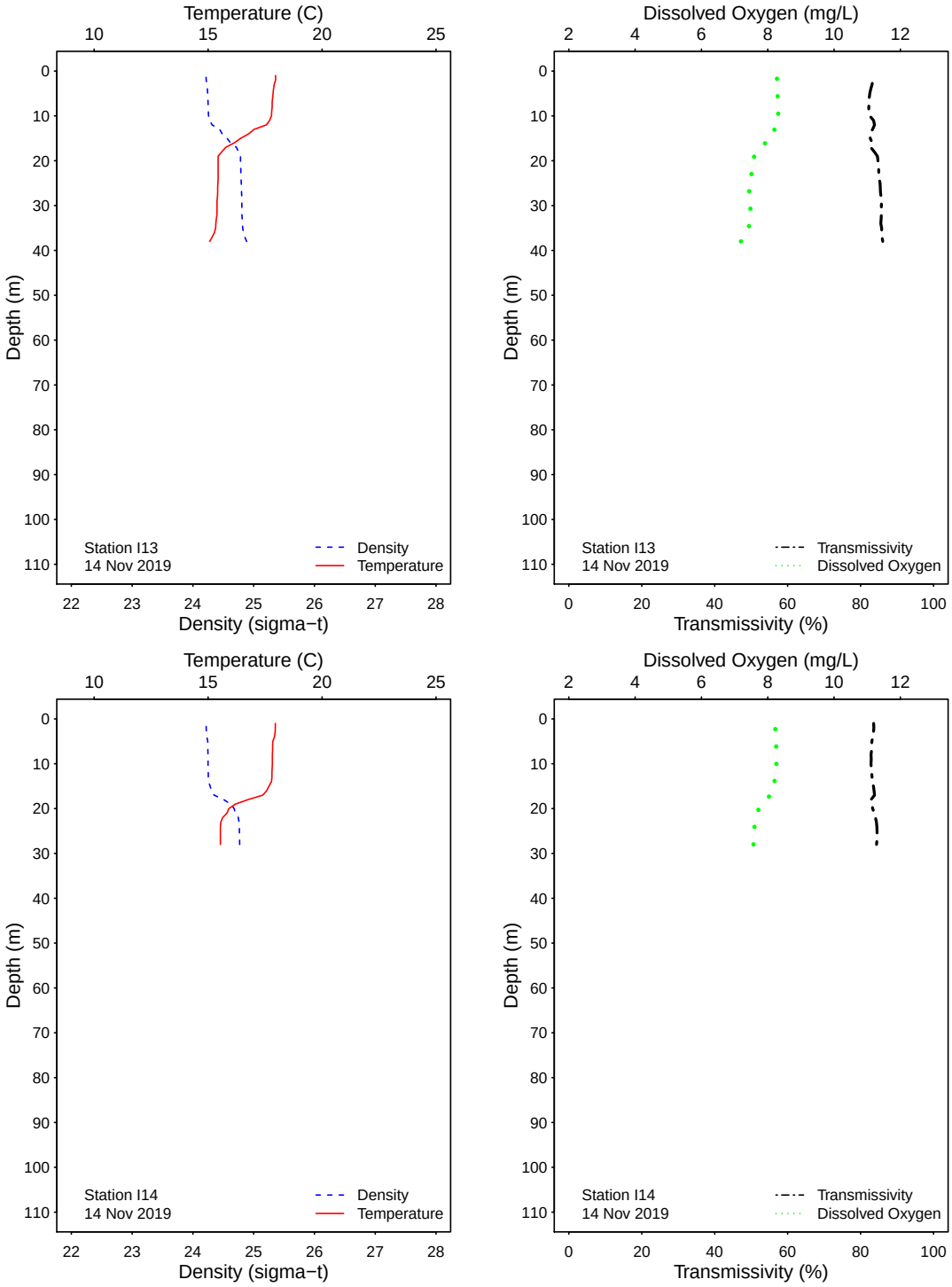

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

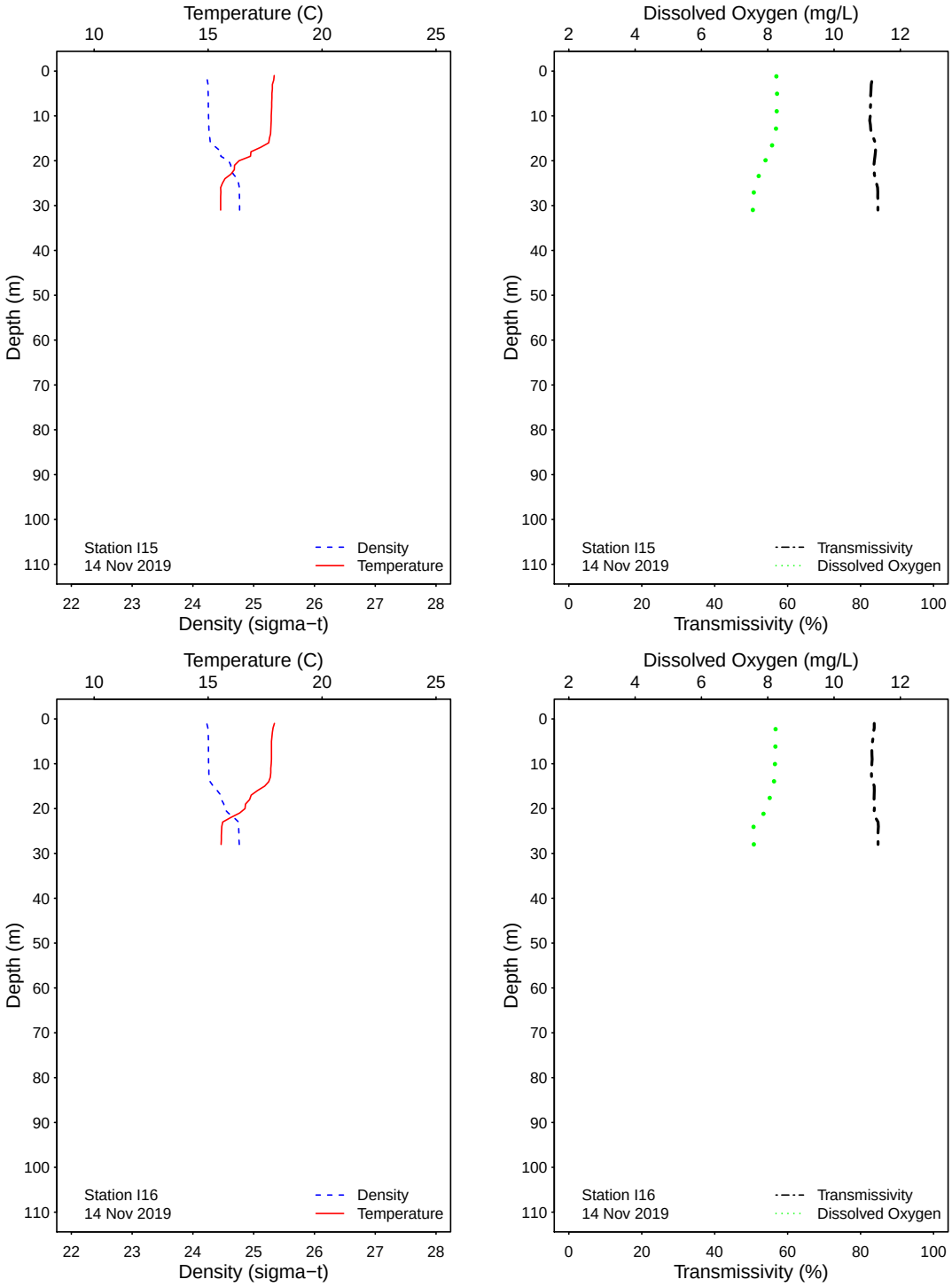

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

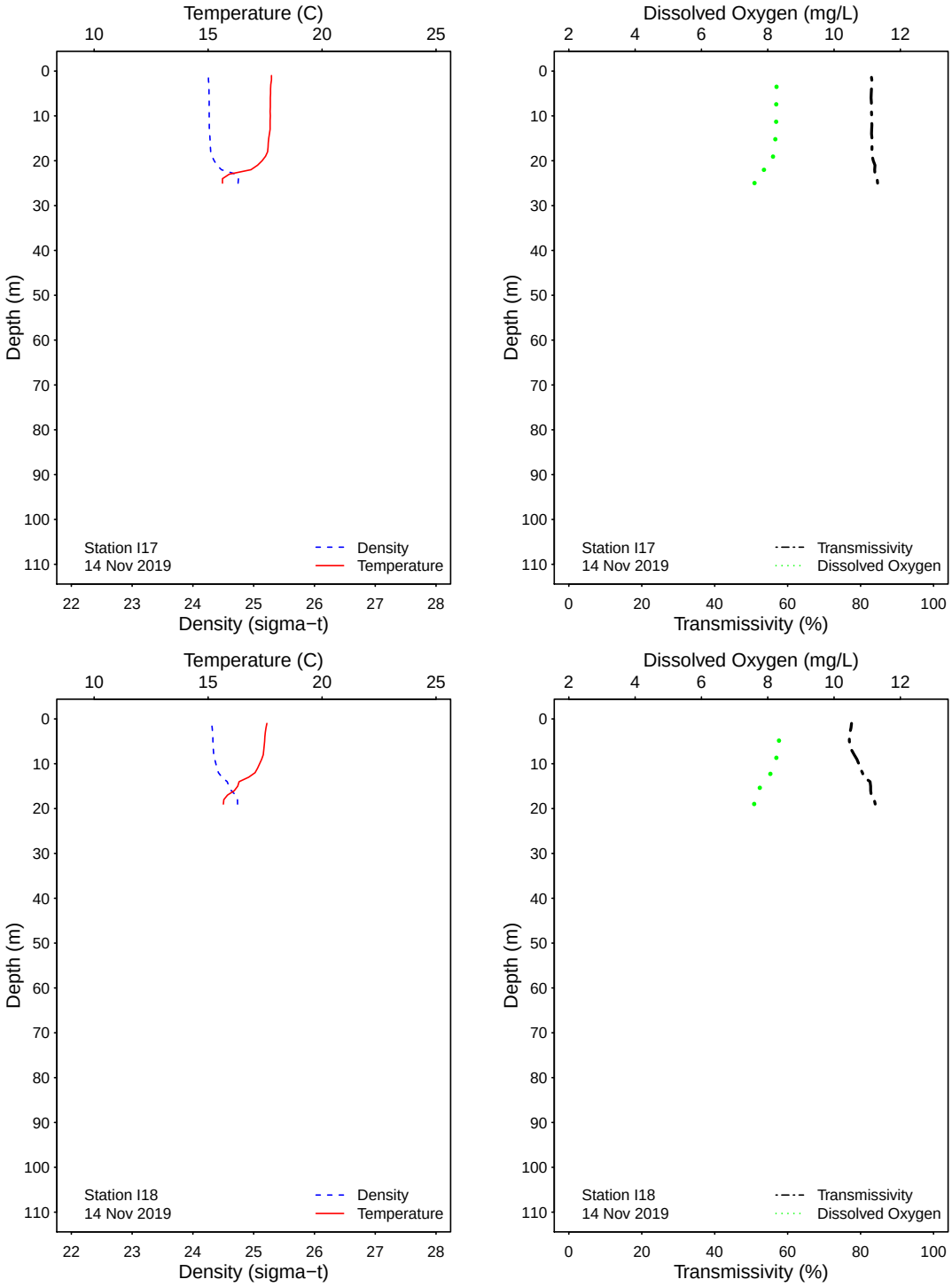

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

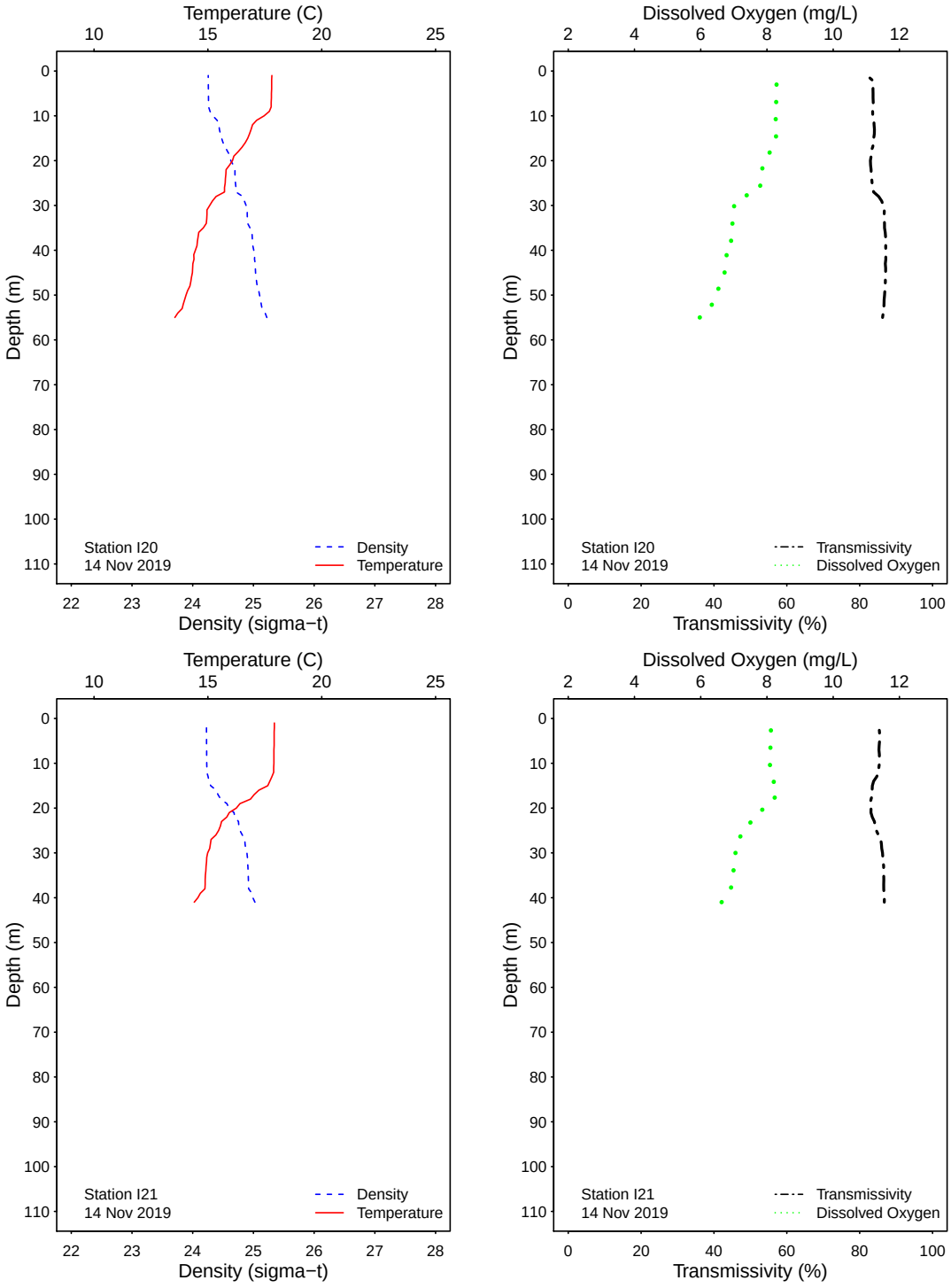

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

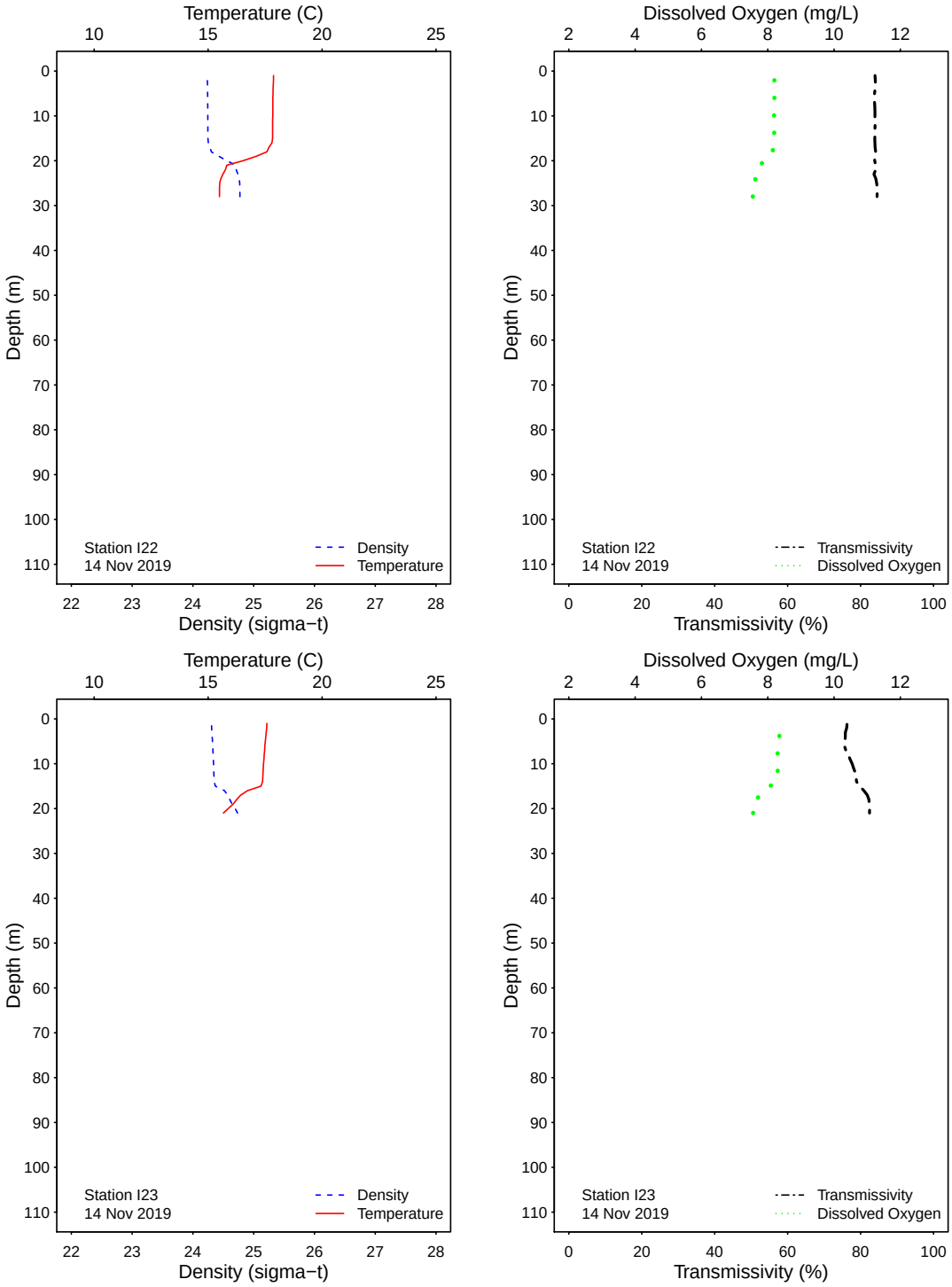

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

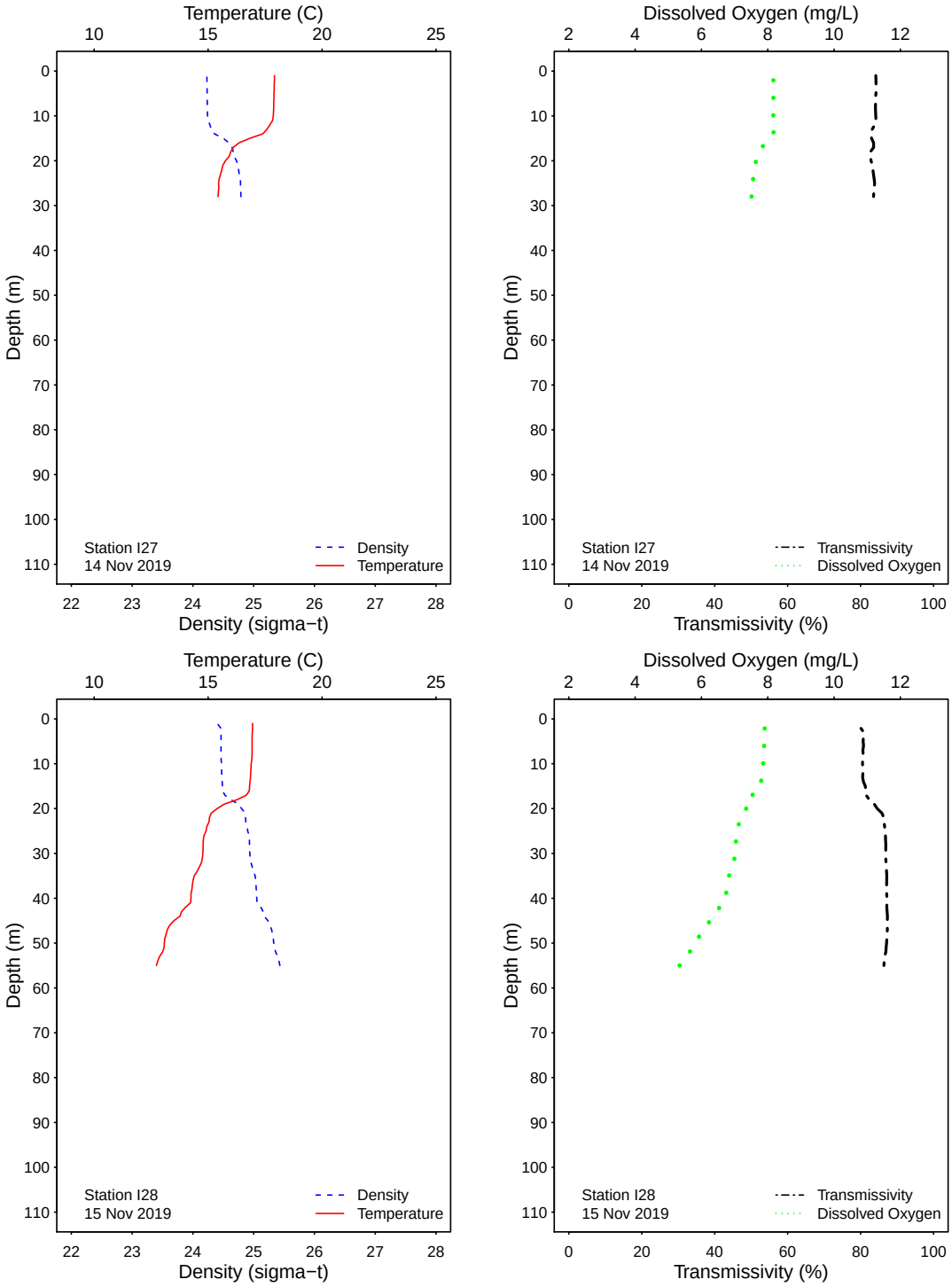

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

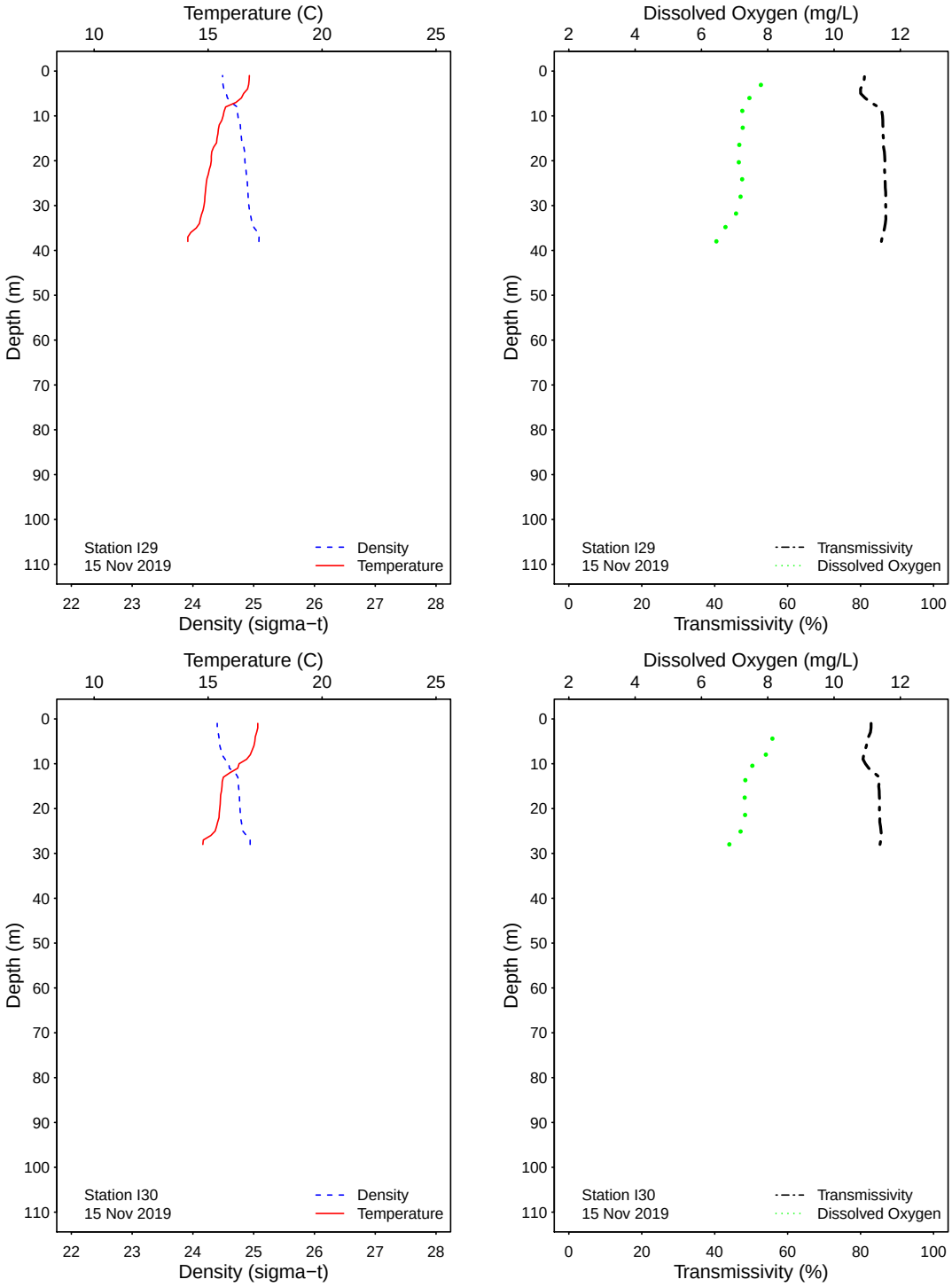

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

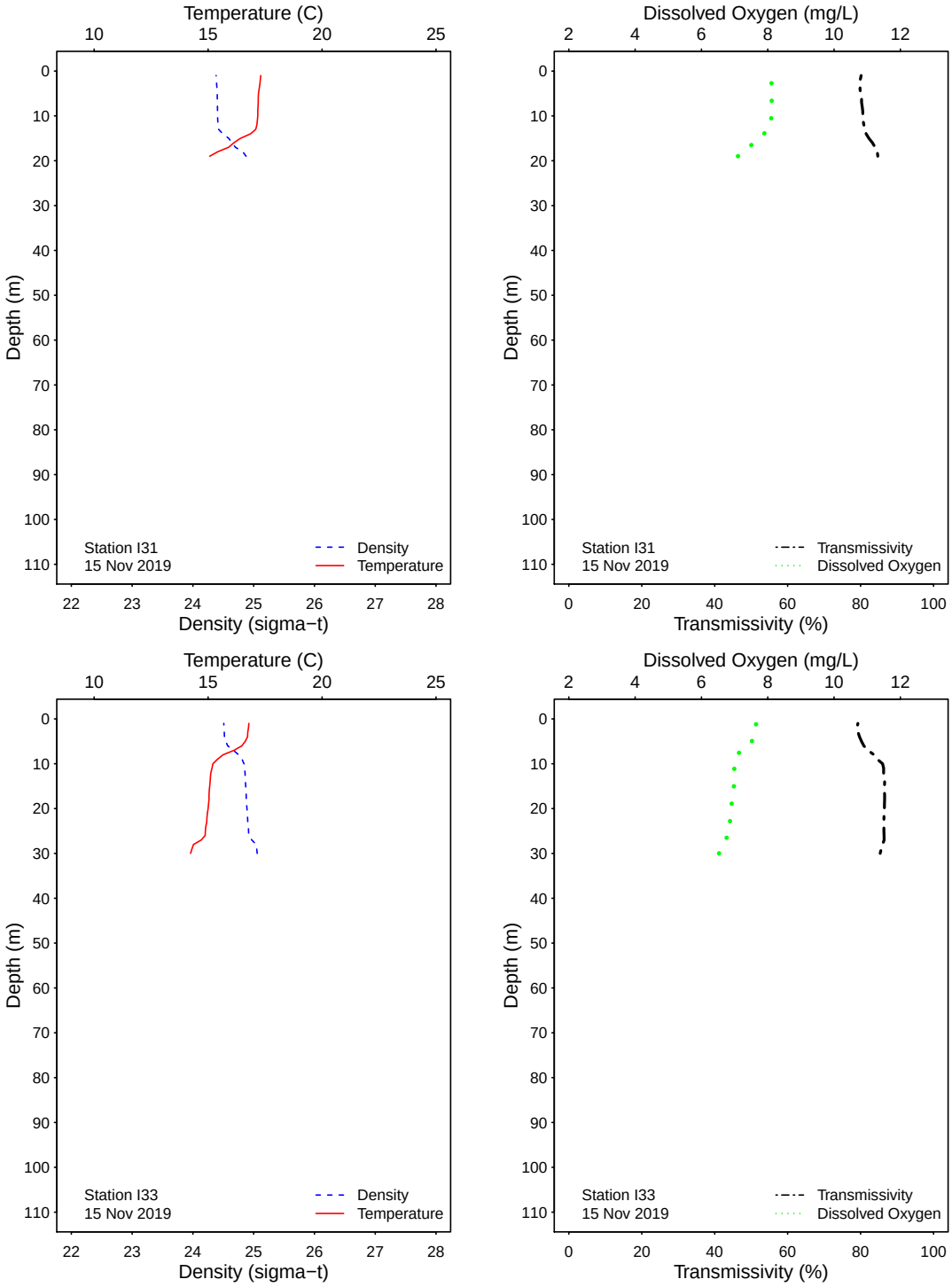

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

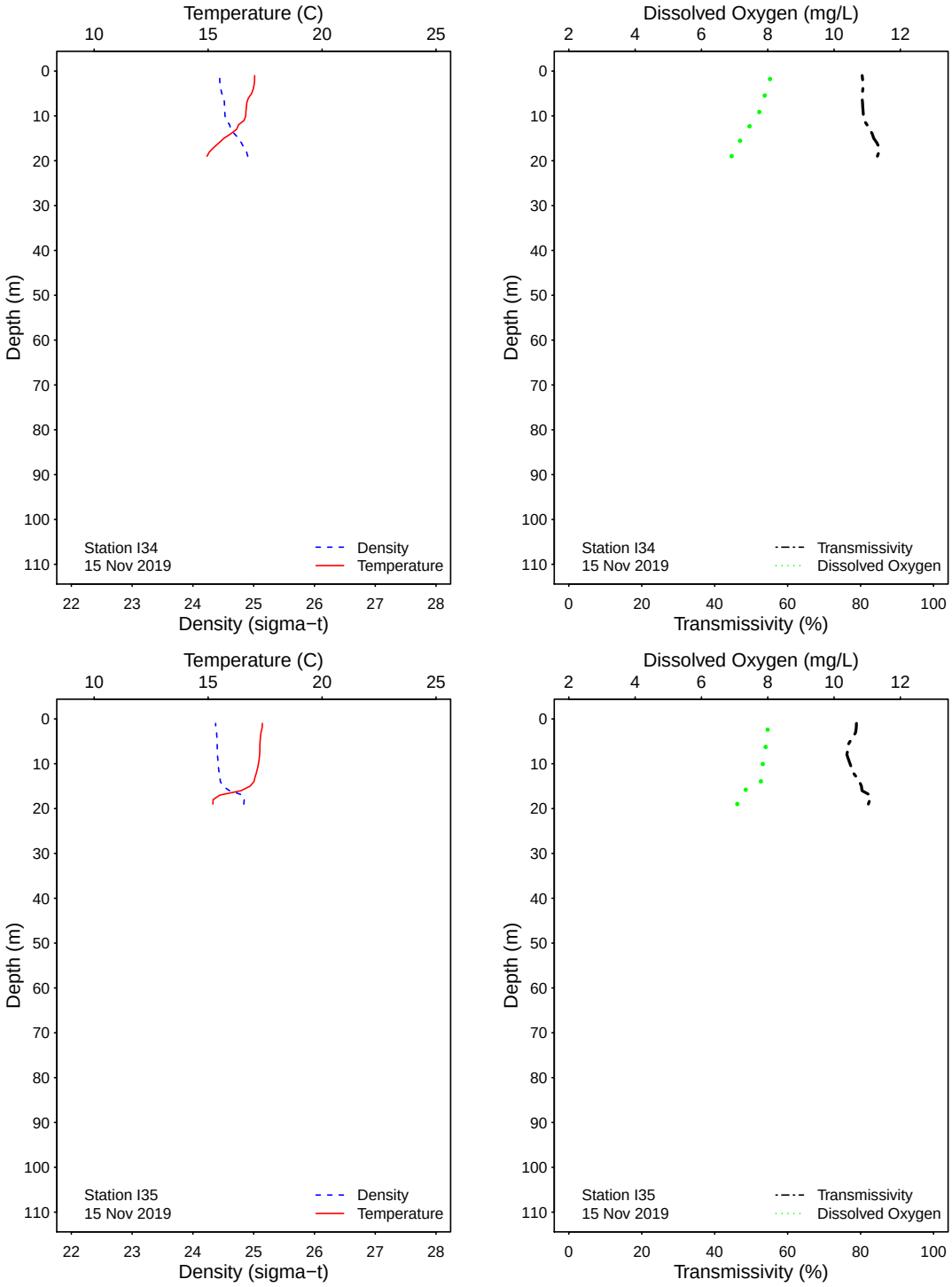

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

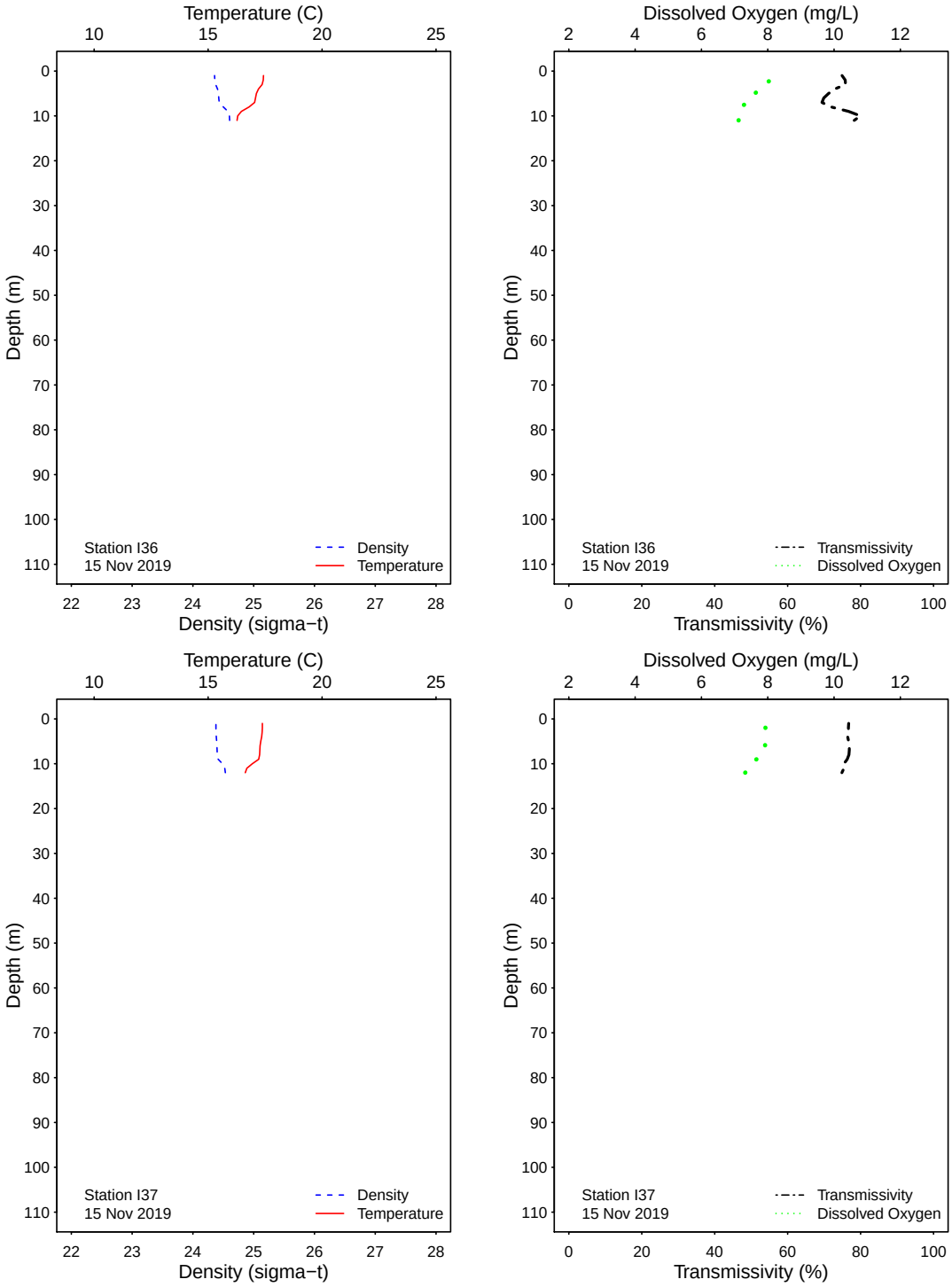

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

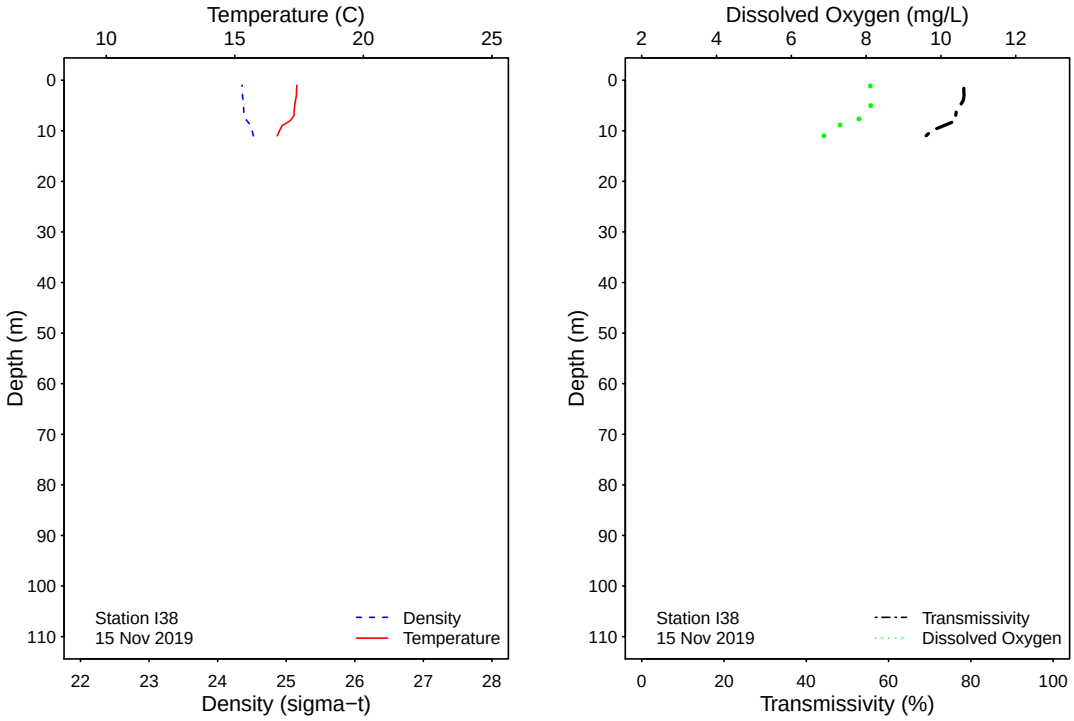

Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

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
I3	13 Nov 2019	18	JF	LAB DUPLICATE	<2	<2	<2
I8	13 Nov 2019	37	JF	LAB DUPLICATE	2e	<2	<2
I9	13 Nov 2019	27	JF	LAB DUPLICATE	<2	<2	<2
I12	14 Nov 2019	18	JT	LAB DUPLICATE	<2	2e	<2
I13	14 Nov 2019	18	JT	LAB DUPLICATE	<2	<2	2e
I14	14 Nov 2019	2	JT	LAB DUPLICATE	12e	<2	<2
I16	14 Nov 2019	18	JT	LAB DUPLICATE	<2	<2	<2
I19	04 Nov 2019	6	JF	LAB DUPLICATE	<2	<2	<2
I19	12 Nov 2019	6	JT	LAB DUPLICATE	20e	2e	2e
I19	18 Nov 2019	6	AR	LAB DUPLICATE	<20	<2	<2
I19	25 Nov 2019	6	JF	LAB DUPLICATE	1400e	300e	44
I20	14 Nov 2019	55	JT	LAB DUPLICATE	20e	2e	<2
I30	15 Nov 2019	27	BS	LAB DUPLICATE	40	2e	4e
I36	15 Nov 2019	11	JF	FIELD DUPLICATE	<2	<2	<2
I36	15 Nov 2019	11	JF	LAB DUPLICATE	<2	2e	<2
I40	04 Nov 2019	6	JF	LAB DUPLICATE	<2	<2	<2
I40	12 Nov 2019	6	JT	LAB DUPLICATE	18e	4e	2e
I40	18 Nov 2019	6	AR	LAB DUPLICATE	<2	<2	<2
I40	25 Nov 2019	6	JT	LAB DUPLICATE	>16000	2200e	320e
S12	05 Nov 2019		AE	FIELD DUPLICATE	<20	4e	<2
S12	05 Nov 2019		AE	LAB DUPLICATE	<20	4e	2e
S12	12 Nov 2019		JF	FIELD DUPLICATE	80e	12e	4e
S12	12 Nov 2019		JF	LAB DUPLICATE	20e	16e	2e
S12	19 Nov 2019		AE	FIELD DUPLICATE	<20	<2	2e
S12	19 Nov 2019		AE	LAB DUPLICATE	<20	<2	<2
S12	26 Nov 2019		JT	FIELD DUPLICATE	>16000	1200e	460
S12	26 Nov 2019		JT	LAB DUPLICATE	>16000	1200e	480
S12	27 Nov 2019		JF	FIELD DUPLICATE	NRNA	NRNA	NRNA
S12	27 Nov 2019		JF	LAB DUPLICATE	NRNA	NRNA	NRNA
S12	28 Nov 2019		AE	FIELD DUPLICATE	NRNA	NRNA	NRNA
S12	28 Nov 2019		AE	LAB DUPLICATE	NRNA	NRNA	NRNA

ns = not sampled
ND = no data

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