

SOUTH BAY OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT

SOUTH BAY WATER RECLAMATION PLANT

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

MAY 2018

Environmental Monitoring and Technical Services 2392 Kincaid Road • Mail Station 45A • San Diego, CA 92101 Tel (619) 758-2300 Fax (619) 758-2309





June 30, 2018

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 May 2018 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 Order Nos. R9-2014-0094 and R9-2017-0024, 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

TS/rjg

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

INTRODUCTION

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

MATERIALS AND METHODS

Shore Stations

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

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

Kelp Bed Stations

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

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

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

<u>30-day Geometric Mean</u>: 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) 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 2018 Quality Assurance Report, which will be completed in March 2019.

SUMMARY OF RESULTS

Shoreline Water Quality Sampling

- Because of site access restrictions in Mexico, the South Bay shoreline sampling is typically carried out on the same day each week (i.e., Tuesday) in order 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 IBWC for subsequent delivery to the City's Marine Microbiology Lab, while samples from the eight stations located in USA waters are sampled by City staff.
- During May, each of the eight shore stations located north of the border was in compliance with various California Ocean Plan (Ocean Plan) water contact standards (see below); these standards do not apply to stations located in Mexican waters.
- 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 seawater samples collected at station S0 on one or more days during the month.
- 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 *South Bay Ocean Outfall Annual Receiving Waters Monitoring and Assessment Report* for details (http://www.sandiego.gov/mwwd/environment/ oceanmonitor/reports/index.shtml).

• Nothing of sewage origin was observed at any of the shore stations.

Kelp Bed Water Quality Sampling

- The seven kelp bed water quality stations (I19, I24, I25, I26, I32, I39, I40) were sampled four times during the month (i.e. May 7, 14, 21, 29).
- During May, all seven stations were in compliance with various Ocean Plan water contact standards (see below).
- Water column temperatures ranged from 10.88 to 16.90°C. The difference between surface and bottom waters ranged from 0.23 to 5.09°C, indicating the water column was stratified at some of these sites during the month.
- Chlorophyll *a* concentrations ranged from 0.58 to 18.12 μ g/L at the kelp bed stations, suggesting the presence of phytoplankton during the month.
- Nothing of sewage origin was observed at any of the kelp bed stations.

Offshore Water Quality Sampling

- Quarterly offshore water quality sampling was conducted over three days during the month (i.e., May 15, 17, 18).
- During May, all of the 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.
- Although the Ocean Plan standards do not apply to stations outside State jurisdictional waters, bacteria densities for these stations did not exceed 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).
- Water column temperatures ranged from 10.50 to 16.21°C at the offshore sites. The difference between surface and bottom waters ranged from 1.33 to 5.38°C, indicating that the water column was stratified at all of the offshore stations during the month.
- Chlorophyll *a* concentrations ranged from 0.23 to 48.04 μ g/L at the offshore sites, suggesting the presence of phytoplankton blooms during the month.
- o CDOM data are available upon request.
- Nothing of sewage origin was observed at any of the offshore stations.



TABLES AND FIGURES



Figure 1.1 Station Map

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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	S 8	S9	S10	S11	S12
01 May 2018	16	16	7	3	7	37	10	11
02 May 2018	16	16	7	3	7	37	10	11
03 May 2018	9*	9*	4*	2*	5*	22*	6*	9*
04 May 2018	9*	9*	4*	2*	5*	22*	6*	9*
05 May 2018	9*	9*	4*	2*	5*	22*	6*	9*
06 May 2018	9*	9*	4*	2*	5*	22*	6*	9*
07 May 2018	9*	9*	4*	2*	5*	22*	6*	9*
08 May 2018	12	13	4	2	7	22	8	9
09 May 2018	12	13	4	2	7	22	8	9
10 May 2018	19*	20*	4*	2*	9*	23*	6*	7*
11 May 2018	19*	20*	4*	2*	9*	23*	6*	7*
12 May 2018	19*	20*	4*	2*	9*	23*	6*	7*
13 May 2018	19*	20*	4*	2*	9*	23*	6*	7*
14 May 2018	19*	20*	4*	2*	9*	23*	6*	7*
15 May 2018	12	13	4	2	11	22	5	9
16 May 2018	12	13	4	2	11	22	5	9
17 May 2018	10*	11*	2*	2*	8*	23*	4*	7*
18 May 2018	10*	11*	2*	2*	8*	23*	4*	7*
19 May 2018	10*	11*	2*	2*	8*	23*	4*	7*
20 May 2018	10*	11*	2*	2*	8*	23*	4*	7*
21 May 2018	10*	11*	2*	2*	8*	23*	4*	7*
22 May 2018	14	13	3	2	6	21	5	10
23 May 2018	14	13	3	2	6	21	5	10
24 May 2018	11*	8*	4*	2*	6*	19*	6*	11*
25 May 2018	11*	8*	4*	2*	6*	19*	6*	11*
26 May 2018	11*	8*	4*	2*	6*	19*	6*	11*
27 May 2018	11*	8*	4*	2*	6*	19*	6*	11*
28 May 2018	11*	8*	4*	2*	6*	19*	6*	11*
29 May 2018	13	9	5	2	8	12	8	12
30 May 2018	13	9	5	2	8	12	8	12
31 May 2018	15*	13*	6*	2*	11*	11*	11*	19*

* Geometric mean calculated using n<5

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 May 2018	3	3	3	2	2	3	3	2
02 May 2018	3	3	3	2	2	3	3	2
03 May 2018	2*	2*	2*	2*	2*	2*	2*	2*
04 May 2018	2*	2*	2*	2*	2*	2*	2*	2*
05 May 2018	2*	2*	2*	2*	2*	2*	2*	2*
06 May 2018	2*	2*	2*	2*	2*	2*	2*	2*
07 May 2018	2*	2*	2*	2*	2*	2*	2*	2*
08 May 2018	2	4	2	2	2	2	2	2
09 May 2018	2	4	2	2	2	2	2	2
10 May 2018	2*	4*	2*	2*	2*	2*	2*	2*
11 May 2018	2*	4*	2*	2*	2*	2*	2*	2*
12 May 2018	2*	4*	2*	2*	2*	2*	2*	2*
13 May 2018	2*	4*	2*	2*	2*	2*	2*	2*
14 May 2018	2*	4*	2*	2*	2*	2*	2*	2*
15 May 2018	2	4	2	2	2	2	2	2
16 May 2018	2	4	2	2	2	2	2	2
17 May 2018	2*	4*	2*	2*	2*	2*	2*	2*
18 May 2018	2*	4*	2*	2*	2*	2*	2*	2*
19 May 2018	2*	4*	2*	2*	2*	2*	2*	2*
20 May 2018	2*	4*	2*	2*	2*	2*	2*	2*
21 May 2018	2*	4*	2*	2*	2*	2*	2*	2*
22 May 2018	2	4	2	2	2	2	2	2
23 May 2018	2	4	2	2	2	2	2	2
24 May 2018	3*	4*	2*	2*	2*	2*	2*	2*
25 May 2018	3*	4*	2*	2*	2*	2*	2*	2*
26 May 2018	3*	4*	2*	2*	2*	2*	2*	2*
27 May 2018	3*	4*	2*	2*	2*	2*	2*	2*
28 May 2018	3*	4*	2*	2*	2*	2*	2*	2*
29 May 2018	2	4	2	2	2	2	2	3
30 May 2018	2	4	2	2	2	2	2	3
31 May 2018	3*	4*	2*	2*	2*	2*	2*	3*

* Geometric mean calculated using n<5

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	S 8	S9	S10	S11	S12
01 May 2018	2	3	2	2	2	2	3	2
02 May 2018	2	3	2	2	2	2	3	2
03 May 2018	2*	3*	2*	2*	3*	2*	2*	2*
04 May 2018	2*	3*	2*	2*	3*	2*	2*	2*
05 May 2018	2*	3*	2*	2*	3*	2*	2*	2*
06 May 2018	2*	3*	2*	2*	3*	2*	2*	2*
07 May 2018	2*	3*	2*	2*	3*	2*	2*	2*
08 May 2018	3	5	2	2	3	2	2	2
09 May 2018	3	5	2	2	3	2	2	2
10 May 2018	4*	6*	2*	2*	3*	2*	3*	2*
11 May 2018	4*	6*	2*	2*	3*	2*	3*	2*
12 May 2018	4*	6*	2*	2*	3*	2*	3*	2*
13 May 2018	4*	6*	2*	2*	3*	2*	3*	2*
14 May 2018	4*	6*	2*	2*	3*	2*	3*	2*
15 May 2018	3	5	2	2	4	2	2	2
16 May 2018	3	5	2	2	4	2	2	2
17 May 2018	4*	6*	2*	2*	3*	2*	3*	2*
18 May 2018	4*	6*	2*	2*	3*	2*	3*	2*
19 May 2018	4*	6*	2*	2*	3*	2*	3*	2*
20 May 2018	4*	6*	2*	2*	3*	2*	3*	2*
21 May 2018	4*	6*	2*	2*	3*	2*	3*	2*
22 May 2018	3	5	2	2	3	2	3	2
23 May 2018	3	5	2	2	3	2	3	2
24 May 2018	4*	4*	2*	2*	3*	2*	3*	2*
25 May 2018	4*	4*	2*	2*	3*	2*	3*	2*
26 May 2018	4*	4*	2*	2*	3*	2*	3*	2*
27 May 2018	4*	4*	2*	2*	3*	2*	3*	2*
28 May 2018	4*	4*	2*	2*	3*	2*	3*	2*
29 May 2018	4	3	2	2	3	2	3	2
30 May 2018	4	3	2	2	3	2	3	2
31 May 2018	5*	4*	2*	2*	3*	2*	3*	2*

* Geometric mean calculated using n<5

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	S 8	S9	S10	S11	S12
01 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
08 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
15 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
22 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
29 May 2018	IC	IC	IC	IC	IC	IC	IC	IC

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	S 8	S9	S10	S11	S12
01 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
08 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
15 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
22 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
29 May 2018	IC	IC	IC	IC	IC	IC	IC	IC

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

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
08 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
15 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
22 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
29 May 2018	IC	IC	IC	IC	IC	IC	IC	IC

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

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
08 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
15 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
22 May 2018	IC	IC	IC	IC	IC	IC	IC	IC
29 May 2018	IC	IC	IC	IC	IC	IC	IC	IC

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

Station	Date	Time	Total	Fecal	Entero	F:T
S0	02 May 2018	1150	8200	920	1400e	0.11
S0	08 May 2018	1035	80e	4e	34e	0.05
S0	15 May 2018	1140	8e	2e	2e	0.25
S0	22 May 2018	1035	<20	<2	10e	0.10
S0	29 May 2018	1015	>16000	1600e	2400e	0.10
	-					
S2	02 May 2018	1230	2e	<2	<2	1.00
S2	08 May 2018	1115	<2	<2	2e	1.00
S2	15 May 2018	1030	<2	<2	<2	1.00
S2	22 May 2018	1150	20e	8e	2e	0.40
S2	29 May 2018	1055	4e	<2	2e	0.50
S3	02 May 2018	1300	34e	2e	28e	0.06
S3	08 May 2018	1145	6e	<2	2e	0.33
S3	15 May 2018	955	140e	6e	2e	0.04
S3	22 May 2018	1245	6e	<2	<2	0.33
S3	29 May 2018	1120	<2	<2	<2	1.00
S4	01 May 2018	847	6e	<2	<2	0.33
S4	08 May 2018	851	36e	<2	28e	0.06
S4	15 May 2018	853	<2	<2	<2	1.00
S4	22 May 2018	846	40e	6e	2e	0.15
S4	29 May 2018	846	<20	<2	4e	0.10
S5	01 May 2018	942	2e	2e	<2	1.00
S5	08 May 2018	950	40e	40	20e	1.00
S5	15 May 2018	1014	<2	<2	2e	1.00
S5	22 May 2018	951	20e	2e	2e	0.10
S5	29 May 2018	1018	<20	<2	<2	0.10
S6	01 May 2018	954	4e	<2	4e	0.50
S6	08 May 2018	958	<2	<2	<2	1.00
S6	15 May 2018	1026	<2	<2	<2	1.00
S6	22 May 2018	959	12e	<2	<2	0.17
S6	29 May 2018	1028	<20	<2	<2	0.10
			_	_	-	
S8	01 May 2018	1046	<2	<2	<2	1.00
S8	08 May 2018	1120	<2	<2	<2	1.00
S8	15 May 2018	1145	<2	<2	<2	1.00
S8	22 May 2018	1120	<2	<2	<2	1.00
S8	29 May 2018	1221	<2	<2	<2	1.00
00	04 May 0040	4400	-0			4.00
S9	01 May 2018	1109	<2	2e	<2	1.00
S9	08 May 2018	1155	<20	<2	4e	0.10
S9	15 May 2018	1225	<20	<2	6e	0.10
S9	22 May 2018	1212	<2	<2	<2	1.00
S9	29 May 2018	1305	<20	<2	2e	0.10
S10	01 May 2018	841	20e	<2	<2	0.10
	01 May 2010		200	∠	~2	0.10

Station	Date	Time	Total	Fecal	Entero	F:T
S10	08 May 2018	846	22e	<2	2e	0.09
S10	15 May 2018	847	<20	<2	2e	0.10
S10	22 May 2018	841	16e	<2	<2	0.12
S10	29 May 2018	841	<2	<2	<2	1.00
S11	01 May 2018	949	2e	<2	<2	1.00
S11	08 May 2018	955	20e	2e	6e	0.10
S11	15 May 2018	1022	2e	<2	2e	1.00
S11	22 May 2018	956	20e	<2	4e	0.10
S11	29 May 2018	1024	<20	<2	<2	0.10
S12	01 May 2018	1003	<2	<2	<2	1.00
S12	08 May 2018	1005	8e	2e	2e	0.25
S12	15 May 2018	1035	<20	4e	<2	0.20
S12	22 May 2018	1009	40e	2e	<2	0.05
S12	29 May 2018	1038	20e	4e	<2	0.20

ns = not sampled ND = no data

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

Station	Date	Parameter	Value
S0	02 May 2018	Arrive Time	1150
S0	02 May 2018	Weather	Cloudy
S0	02 May 2018	Wind Speed (kts)	1.4
S0	02 May 2018	Wind Dir	NE
S0	02 May 2018	Animal Life	5 Shorebirds
S0	02 May 2018	Floatables	None
S0	02 May 2018	Water Color	Green
S0	02 May 2018	Current Direction	N
S0	02 May 2018	Water Temp (C)	15
S0	02 May 2018	Wave Height Low (ft)	2
S0	02 May 2018	High Tide (ft)	3.6
S0	02 May 2018	High Tide Time	1146
S0	02 May 2018	Low Tide (ft)	1.8
S0	02 May 2018	Low Tide Time	1653
S0	02 May 2018	Comments	Kelp; Algae; Water clear; 1L/s water flowing from storm drain
S0	08 May 2018	Arrive Time	1035
S0	08 May 2018	Weather	Cloudy
S0	08 May 2018	Wind Speed (kts)	0
S0	08 May 2018	Wind Dir	
S0	08 May 2018	Animal Life	2 Dogs; 20 Seagulls
S0	08 May 2018	Floatables	None
S0	08 May 2018	Water Color	Green
S0	08 May 2018	Current Direction	N
S0	08 May 2018	Water Temp (C)	12
S0	08 May 2018	Wave Height Low (ft)	2
S0	08 May 2018	High Tide (ft)	3.6
S0	08 May 2018	High Tide Time	351
S0	08 May 2018	Low Tide (ft)	0.6
S0	08 May 2018	Low Tide Time	1115
S0	08 May 2018	Comments	Kelp; Algae; Water turbid; 1L/s water flowing from storm drain
S0	15 May 2018	Arrive Time	1140
S0	15 May 2018	Weather	Cloudy
S0	15 May 2018	Wind Speed (kts)	1.3
S0	15 May 2018	Wind Dir	SW
S0	15 May 2018	Animal Life	15 Birds; 5 Dogs
S0	15 May 2018	Floatables	None
S0	15 May 2018	Water Color	Green
S0	15 May 2018	Current Direction	Ν
S0	15 May 2018	Water Temp (C)	15
S0	15 May 2018	Wave Height Low (ft)	3
S0	15 May 2018	High Tide (ft)	4.2
S0	15 May 2018	High Tide Time	1004
S0	15 May 2018	Low Tide (ft)	1
S0	15 May 2018	Low Tide Time	1531
S0	15 May 2018	Comments	Water clear; 0.5 L/s water flowing from storm drain
S0	22 May 2018	Arrive Time	1035
S0	22 May 2018	Weather	Sunny
S0	22 May 2018	Wind Speed (kts)	1.3
00	100 y 2010		1.0

Station	Date	Parameter	Value
S0	22 May 2018	Wind Dir	NW
S0	22 May 2018	Animal Life	6 Shorebirds; 1 Dog; 7 Seagulls
S0	22 May 2018	Floatables	None
S0	22 May 2018	Water Color	Green
S0	22 May 2018	Current Direction	NW
S0	22 May 2018	Water Temp (C)	15
S0	22 May 2018	Wave Height Low (ft)	3
S0	22 May 2018	High Tide (ft)	4.3
S0	22 May 2018	High Tide Time	331
S0	22 May 2018	Low Tide (ft)	0
S0	22 May 2018	Low Tide Time	1042
S0	•	Comments	Seagrass; 4 Persons; Water clear; 0.5L/s water flowing from storm
30	22 May 2018	Comments	drain
			urain
S0	20 May 2019	Arrive Time	1015
	29 May 2018	Weather	
S0	29 May 2018		Cloudy
S0	29 May 2018	Wind Speed (kts)	0.9
S0	29 May 2018	Wind Dir	SW
S0	29 May 2018	Animal Life	5 Birds
S0	29 May 2018	Floatables	None
S0	29 May 2018	Water Color	Green
S0	29 May 2018	Current Direction	SW
S0	29 May 2018	Water Temp (C)	15
S0	29 May 2018	Wave Height Low (ft)	2
S0	29 May 2018	High Tide (ft)	3.8
S0	29 May 2018	High Tide Time	1016
S0	29 May 2018	Low Tide (ft)	1.6
S0	29 May 2018	Low Tide Time	1525
S0	29 May 2018	Comments	Water clear; 0.5L/s water flowing from storm drain
S2	02 May 2018	Arrive Time	1230
S2	02 May 2018	Weather	Cloudy
S2	02 May 2018	Wind Speed (kts)	0.8
S2	02 May 2018	Wind Dir	NE
S2	02 May 2018	Animal Life	5 Shorebirds
S2	02 May 2018	Floatables	None
S2	02 May 2018	Water Color	Green
S2	02 May 2018	Current Direction	Ν
S2	02 May 2018	Water Temp (C)	16
S2	02 May 2018	Wave Height Low (ft)	2
S2	02 May 2018	High Tide (ft)	3.6
S2	02 May 2018	High Tide Time	1146
S2	02 May 2018	Low Tide (ft)	1.8
S2	02 May 2018	Low Tide Time	1653
S2	02 May 2018	Comments	Kelp; Algae; 4 Persons; Water clear; No flow from storm drain.
S2	08 May 2018	Arrive Time	1115
S2	08 May 2018	Weather	Cloudy
S2	08 May 2018	Wind Speed (kts)	0
S2	08 May 2018	Wind Dir	
S2	08 May 2018	Animal Life	1 Dog; 20 Seagulls
S2	08 May 2018	Floatables	None
S2	08 May 2018	Water Color	Green
S2	08 May 2018	Current Direction	N
S2	08 May 2018	Water Temp (C)	12
	2010	······································	:=

Station	Date	Parameter	Value
S2	08 May 2018	Wave Height Low (ft)	2
S2	08 May 2018	High Tide (ft)	3.8
S2	08 May 2018	High Tide Time	1817
S2	08 May 2018	Low Tide (ft)	0.6
S2	08 May 2018	Low Tide Time	1115
S2	08 May 2018	Comments	Kelp; Algae; Water turbid; No flow from storm drain
	, , , , , , , , , , , , , , , , , , ,		
S2	15 May 2018	Arrive Time	1030
S2	15 May 2018	Weather	Cloudy
S2	15 May 2018	Wind Speed (kts)	1.8
S2	15 May 2018	Wind Dir	SW
S2	15 May 2018	Animal Life	20 Shorebirds
S2	15 May 2018	Floatables	None
S2	15 May 2018	Water Color	Green
S2	15 May 2018	Current Direction	N
S2	15 May 2018	Water Temp (C)	15
S2	15 May 2018	Wave Height Low (ft)	3
S2	15 May 2018	High Tide (ft)	4.2
S2	15 May 2018	High Tide Time	1004
S2	15 May 2018	Low Tide (ft)	1
S2	15 May 2018	Low Tide Time	1531
S2	15 May 2018	Comments	Water clear; No flow from storm drain
52	15 May 2010	Comments	
S2	22 May 2018	Arrive Time	1150
52 S2	-	Weather	
52 S2	22 May 2018 22 May 2018		Sunny 1.6
52 S2	22 May 2018 22 May 2018	Wind Speed (kts) Wind Dir	NW
S2	22 May 2018 22 May 2018	Animal Life	5 Shorebirds; 1 Pelican; 4 Seagulls
S2 S2	22 May 2018 22 May 2018	Floatables	None
52 S2	22 May 2018 22 May 2018	Water Color	Green
52 S2	22 May 2018 22 May 2018	Current Direction	NW
52 S2	22 May 2018 22 May 2018	Water Temp (C)	15
52 S2	22 May 2018 22 May 2018	Wave Height Low (ft)	3
52 S2	22 May 2018 22 May 2018	High Tide (ft)	4.4
52 S2	22 May 2018 22 May 2018	High Tide Time	1736
S2 S2	-		0
	22 May 2018	Low Tide (ft)	
S2	22 May 2018	Low Tide Time	1042 Segrege: 2 Decemps: Water clear: No flow from storm drain
S2	22 May 2018	Comments	Seagrass; 3 Persons; Water clear; No flow from storm drain
S2	29 May 2018	Arrive Time	1055
52 S2	29 May 2018 29 May 2018	Weather	Cloudy
52 S2	29 May 2018 29 May 2018	Wind Speed (kts)	0.6
52 S2	29 May 2018 29 May 2018	Wind Dir	SW
52 S2	29 May 2018 29 May 2018	Animal Life	5 Birds; 5 Dogs; 5 Dolphins
52 S2	29 May 2018 29 May 2018	Floatables	None
52 S2	-	Water Color	Green
52 S2	29 May 2018 29 May 2018		SW
	29 May 2018	Current Direction	
S2	29 May 2018	Water Temp (C)	15
S2	29 May 2018	Wave Height Low (ft)	2
S2	29 May 2018	High Tide (ft)	3.8
S2	29 May 2018	High Tide Time	1016
S2	29 May 2018	Low Tide (ft)	1.6
S2	29 May 2018	Low Tide Time	1525 Water clear No flow from storm drain
S2	29 May 2018	Comments	Water clear; No flow from storm drain

Station	Date	Parameter	Value
S3	02 May 2018	Arrive Time	1300
S3	02 May 2018	Weather	Cloudy
S3	02 May 2018	Wind Speed (kts)	0.8
S3	02 May 2018	Wind Dir	SE
S3	02 May 2018	Animal Life	5 Shorebirds
S3	02 May 2018	Floatables	None
S3	02 May 2018	Water Color	Green
S3	02 May 2018	Current Direction	Ν
S3	02 May 2018	Water Temp (C)	16
S3	02 May 2018	Wave Height Low (ft)	2
S3	02 May 2018	High Tide (ft)	3.6
S3	02 May 2018	High Tide Time	1146
S3	02 May 2018	Low Tide (ft)	1.8
S3	02 May 2018	Low Tide Time	1653
S3	02 May 2018	Comments	Kelp; Algae; Water clear; No flow from storm drain.
S3	08 May 2018	Arrive Time	1145
S3	08 May 2018	Weather	Cloudy
S3	08 May 2018	Wind Speed (kts)	0
S3	08 May 2018	Wind Dir	
S3	08 May 2018	Animal Life	20 Seagulls
S3	08 May 2018	Floatables	None
S3	08 May 2018	Water Color	Green
S3	08 May 2018	Current Direction	N
S3	08 May 2018	Water Temp (C)	12
S3	08 May 2018	Wave Height Low (ft)	2
S3	08 May 2018	High Tide (ft)	3.8
S3	08 May 2018	High Tide Time	1817
S3	08 May 2018	Low Tide (ft)	0.6
S3	08 May 2018	Low Tide Time	1115
S3	08 May 2018	Comments	Kelp; Algae; Water turbid; 0.5 L/s water flowing from storm drain
00	00 May 2010	Comments	Nep, Algae, Water turbid, 0.5 L/3 water nowing nom storm dram
S3	15 May 2018	Arrive Time	955
S3	15 May 2018	Weather	Cloudy
S3	15 May 2018	Wind Speed (kts)	1.5
S3	15 May 2018	Wind Dir	SW
S3	15 May 2018	Animal Life	5 Shorebirds
S3	15 May 2018	Floatables	None
S3	15 May 2018	Water Color	Green
S3	15 May 2018	Current Direction	N
S3	15 May 2018	Water Temp (C)	15
S3	15 May 2018	Wave Height Low (ft)	3
S3	15 May 2018	High Tide (ft)	4.2
S3	15 May 2018	High Tide Time	1004
S3	15 May 2018	Low Tide (ft)	1
S3	15 May 2018	Low Tide Time	1531
S3	15 May 2018	Comments	Water clear; No flow from storm drain
S3	22 May 2018	Arrive Time	1245
S3	22 May 2018	Weather	Sunny
S3	22 May 2018	Wind Speed (kts)	1.4
S3	22 May 2018	Wind Dir	NW
S3	22 May 2018	Animal Life	6 Shorebirds; 3 Dogs; 3 Seagulls
S3	22 May 2018	Floatables	None
S3	22 May 2018	Water Color	Green

Station	Date	Parameter	Value
S3	22 May 2018	Current Direction	NW
S3	22 May 2018	Water Temp (C)	15
S3	22 May 2018	Wave Height Low (ft)	3
S3	22 May 2018	High Tide (ft)	4.4
S3	22 May 2018	High Tide Time	1736
S3	22 May 2018	Low Tide (ft)	0
S3	22 May 2018	Low Tide Time	1042
S3	22 May 2018	Comments	Seagrass; 7 Surfers; Water clear; No flow from storm drain
S3	29 May 2018	Arrive Time	1120
S3	29 May 2018	Weather	Cloudy
S3	29 May 2018	Wind Speed (kts)	0.7
S3	29 May 2018	Wind Dir	SW
S3	29 May 2018	Animal Life	5 Birds
S3	29 May 2018	Floatables	None
S3	29 May 2018	Water Color	Green
S3	29 May 2018	Current Direction	SW
S3	29 May 2018	Water Temp (C)	15
S3	29 May 2018	Wave Height Low (ft)	2
S3	29 May 2018	High Tide (ft)	3.8
S3	29 May 2018	High Tide Time	1016
S3	29 May 2018	Low Tide (ft)	1.6
S3	29 May 2018	Low Tide Time	1525
S3	29 May 2018	Comments	Water clear; No flow from storm drain
S4	01 May 2018	Arrive Time	847
S4	01 May 2018	Weather	Cloudy
S4	01 May 2018	Wind Speed (kts)	5.1
S4	01 May 2018	Wind Dir	W
S4	01 May 2018	Animal Life	None
S4	01 May 2018	Floatables	Foam
S4	01 May 2018	Water Color	Green
S4	01 May 2018	Current Direction	W
S4	01 May 2018	Water Temp (C)	14.8
S4	01 May 2018	Wave Height Low (ft)	3
S4	01 May 2018	High Tide (ft)	3.9
S4	01 May 2018	High Tide Time	1102
S4	01 May 2018	Low Tide (ft)	-0.5
S4	01 May 2018	Low Tide Time	455
S4	01 May 2018	Comments	Kelp; Seagrass; Debris; Water clear
S4	08 May 2018	Arrive Time	851
S4	08 May 2018	Weather	Cloudy
S4	08 May 2018	Wind Speed (kts)	2.7
S4	08 May 2018	Wind Dir	W
S4	08 May 2018	Animal Life	None
S4	08 May 2018	Floatables	None
S4	08 May 2018	Water Color	Green
S4	08 May 2018	Current Direction	N
S4	08 May 2018	Water Temp (C)	13
S4	08 May 2018	Wave Height Low (ft)	3
S4	08 May 2018	High Tide (ft)	3.6
S4	08 May 2018	High Tide Time	351
S4	08 May 2018	Low Tide (ft)	0.6
S4	08 May 2018	Low Tide Time	1115
	2010		

Station	Date	Parameter	Value
S4	08 May 2018	Comments	Kelp; Seagrass; Water clear
S4	15 May 2018	Arrive Time	853
S4	15 May 2018	Weather	Sunny
S4	15 May 2018	Wind Speed (kts)	5.2
S4	15 May 2018	Wind Dir	Ν
S4	15 May 2018	Animal Life	None
S4	15 May 2018	Floatables	None
S4	15 May 2018	Water Color	Green
S4	15 May 2018	Current Direction	N
S4	15 May 2018	Water Temp (C)	13
S4	15 May 2018	Wave Height Low (ft)	2
S4	15 May 2018	High Tide (ft)	4.2
S4	15 May 2018	High Tide Time	1004
S4	15 May 2018	Low Tide (ft)	-0.9
S4	15 May 2018	Low Tide Time	356
S4	15 May 2018	Comments	Seagrass; Water clear
07	15 May 2010	Comments	Seagrass, water clear
S4	22 May 2018	Arrive Time	846
S4	22 May 2018 22 May 2018	Weather	Cloudy
S4	-	Wind Speed (kts)	5.2
S4	22 May 2018 22 May 2018	Wind Dir	0.2 W
	-		
S4	22 May 2018	Animal Life	None
S4	22 May 2018	Floatables	None
S4	22 May 2018	Water Color	Green
S4	22 May 2018	Current Direction	N
S4	22 May 2018	Water Temp (C)	14
S4	22 May 2018	Wave Height Low (ft)	3
S4	22 May 2018	High Tide (ft)	4.3
S4	22 May 2018	High Tide Time	331
S4	22 May 2018	Low Tide (ft)	0
S4	22 May 2018	Low Tide Time	1042
S4	22 May 2018	Comments	Kelp; Seagrass; Water clear
S4	29 May 2018	Arrive Time	846
S4	29 May 2018	Weather	Overcast
S4	29 May 2018	Wind Speed (kts)	5.4
S4	29 May 2018	Wind Dir	S
S4	29 May 2018	Animal Life	None
S4	29 May 2018	Floatables	None
S4	29 May 2018	Water Color	Green
S4	29 May 2018	Current Direction	Ν
S4	29 May 2018	Water Temp (C)	14
S4	29 May 2018	Wave Height Low (ft)	2
S4	29 May 2018	High Tide (ft)	3.8
S4	29 May 2018	High Tide Time	1016
S4	29 May 2018	Low Tide (ft)	-0.6
S4	29 May 2018	Low Tide Time	407
S4	29 May 2018	Comments	8 Persons; Water clear
a –			
S5	01 May 2018	Arrive Time	942
S5	01 May 2018	Weather	
S5	01 May 2018	Wind Speed (kts)	7.5
S5	01 May 2018	Wind Dir	W
S5	01 May 2018	Animal Life	3 Horses

Station	Date	Parameter	Value
S5	01 May 2018	Floatables	Foam
S5	01 May 2018	Water Color	Green
S5	01 May 2018	Current Direction	W
S5	01 May 2018	Water Temp (C)	14.6
S5	01 May 2018	Wave Height Low (ft)	3
S5	01 May 2018	High Tide (ft)	3.9
S5	01 May 2018	High Tide Time	1102
S5	01 May 2018	Low Tide (ft)	-0.5
S5	01 May 2018	Low Tide Time	455
S5	01 May 2018	Comments	Kelp; Seagrass; Debris; 3 Persons; Water clear
	•••• ··		
S5	08 May 2018	Arrive Time	950
S5	08 May 2018	Weather	Cloudy
S5	08 May 2018	Wind Speed (kts)	2.7
S5	08 May 2018	Wind Dir	W
S5	08 May 2018	Animal Life	None
S5	08 May 2018	Floatables	None
S5	08 May 2018	Water Color	Green
S5	08 May 2018 08 May 2018	Current Direction	N
S5	08 May 2018	Water Temp (C)	13
S5	08 May 2018	Wave Height Low (ft)	3
S5	-		3.6
	08 May 2018	High Tide (ft)	
S5	08 May 2018	High Tide Time	351
S5	08 May 2018	Low Tide (ft)	0.6
S5	08 May 2018	Low Tide Time	1115 Kolas Casaraan Watar alaar
S5	08 May 2018	Comments	Kelp; Seagrass; Water clear
S5	15 May 2018	Arrive Time	1014
S5	15 May 2018	Weather	Overcast
S5	15 May 2018	Wind Speed (kts)	7.3
S5	15 May 2018	Wind Dir	Ν
S5	15 May 2018	Animal Life	None
S5	15 May 2018	Floatables	None
S5	15 May 2018	Water Color	Green
S5	15 May 2018	Current Direction	Ν
S5	15 May 2018	Water Temp (C)	15
S5	15 May 2018	Wave Height Low (ft)	2
S5	15 May 2018	High Tide (ft)	4.2
S5	15 May 2018	High Tide Time	1004
S5	15 May 2018	Low Tide (ft)	1
S5	15 May 2018	Low Tide Time	1531
S5	15 May 2018	Comments	Kelp; 1 Person; Water clear
S5	22 May 2018	Arrive Time	951
S5 S5	-	Weather	Cloudy
S5 S5	22 May 2018 22 May 2018		7.1
S5 S5		Wind Speed (kts)	V.I W
S5 S5	22 May 2018	Wind Dir Animal Life	
	22 May 2018	Animal Life	None
S5	22 May 2018	Floatables Water Color	None
S5	22 May 2018	Water Color	Green
S5	22 May 2018	Current Direction	N 14
S5	22 May 2018	Water Temp (C)	14
S5	22 May 2018	Wave Height Low (ft)	3
S5	22 May 2018	High Tide (ft)	4.3
S5	22 May 2018	High Tide Time	331

Station	Date	Parameter	Value
S5	22 May 2018	Low Tide (ft)	0
S5	22 May 2018	Low Tide Time	1042
S5	22 May 2018	Comments	Kelp; Seagrass; Water clear
	-		
S5	29 May 2018	Arrive Time	1018
S5	29 May 2018	Weather	Overcast
S5	29 May 2018	Wind Speed (kts)	5.8
S5	29 May 2018	Wind Dir	Ν
S5	29 May 2018	Animal Life	None
S5	29 May 2018	Floatables	None
S5	29 May 2018	Water Color	Green
S5	29 May 2018	Current Direction	Ν
S5	29 May 2018	Water Temp (C)	17
S5	29 May 2018	Wave Height Low (ft)	2
S5	29 May 2018	High Tide (ft)	3.8
S5	29 May 2018	High Tide Time	1016
S5	29 May 2018	Low Tide (ft)	1.6
S5	29 May 2018	Low Tide Time	1525
S5	29 May 2018	Comments	1 Person; Water clear
S6	01 May 2018	Arrive Time	954
S6	01 May 2018	Weather	Cloudy
S6	01 May 2018	Wind Speed (kts)	7.1
S6	01 May 2018	Wind Dir	W
S6	01 May 2018	Animal Life	None
S6	01 May 2018	Floatables	None
S6	01 May 2018	Water Color	Green
S6	01 May 2018	Current Direction	W
S6	01 May 2018	Water Temp (C)	14.2
S6	01 May 2018	Wave Height Low (ft)	3
S6	01 May 2018	High Tide (ft)	3.9
S6	01 May 2018	High Tide Time	1102
S6	01 May 2018	Low Tide (ft)	-0.5
S6	01 May 2018	Low Tide Time	455
S6	01 May 2018	Comments	Kelp; Seagrass; Debris; Water clear
S6	08 May 2018	Arrive Time	958
S6	08 May 2018	Weather	Cloudy
S6	08 May 2018	Wind Speed (kts)	3.1
S6	08 May 2018	Wind Dir	SW
S6	08 May 2018	Animal Life	None
S6	08 May 2018	Floatables	None
S6	08 May 2018	Water Color	Green
S6	08 May 2018	Current Direction	N 42
S6	08 May 2018	Water Temp (C)	13
S6	08 May 2018	Wave Height Low (ft)	3
S6	08 May 2018	High Tide (ft)	3.6
S6	08 May 2018	High Tide Time	351
S6	08 May 2018	Low Tide (ft)	0.6
S6	08 May 2018	Low Tide Time	1115 Kola: Coorrest: Weter close
S6	08 May 2018	Comments	Kelp; Seagrass; Water clear
66	15 May 2019	Arrivo Timo	1026
S6	15 May 2018	Arrive Time	1026 Cloudy
S6 S6	15 May 2018	Weather Wind Speed (kts)	
30	15 May 2018	Wind Speed (kts)	10.4

Station	Date	Parameter	Value
S6	15 May 2018	Wind Dir	Ν
S6	15 May 2018	Animal Life	None
S6	15 May 2018	Floatables	None
S6	15 May 2018	Water Color	Green
S6	15 May 2018	Current Direction	Ν
S6	15 May 2018	Water Temp (C)	15
S6	15 May 2018	Wave Height Low (ft)	2
S6	15 May 2018	High Tide (ft)	4.2
S6	15 May 2018	High Tide Time	1004
S6	15 May 2018	Low Tide (ft)	1
S6	15 May 2018	Low Tide Time	1531
S6	15 May 2018	Comments	Water clear
		00111101110	
S6	22 May 2018	Arrive Time	959
S6	22 May 2018	Weather	Cloudy
S6	22 May 2018	Wind Speed (kts)	5.8
S6	22 May 2018	Wind Dir	W
S6	22 May 2018	Animal Life	None
S6	22 May 2018	Floatables	None
S6	22 May 2018	Water Color	Green
S6	22 May 2018	Current Direction	N
S6	22 May 2018	Water Temp (C)	15
S6	22 May 2018 22 May 2018	Wave Height Low (ft)	3
S6	-	High Tide (ft)	4.3
S6	22 May 2018	High Tide Time	331
	22 May 2018		0
S6 S6	22 May 2018	Low Tide (ft) Low Tide Time	1042
	22 May 2018		
S6	22 May 2018	Comments	Kelp; Seagrass; 1 Person; Water clear
S6	29 May 2018	Arrive Time	1028
S6	29 May 2018	Weather	Overcast
S6	29 May 2018	Wind Speed (kts)	2.5
S6	29 May 2018	Wind Dir	N
S6	29 May 2018	Animal Life	None
S6	29 May 2018	Floatables	None
S6	29 May 2018	Water Color	Green
S6	29 May 2018	Current Direction	N
S6	29 May 2018	Water Temp (C)	16
S6	29 May 2018	Wave Height Low (ft)	2
S6	29 May 2018 29 May 2018	High Tide (ft)	3.8
S6	29 May 2018 29 May 2018	High Tide Time	1016
S6	29 May 2018 29 May 2018	Low Tide (ft)	1.6
S6	29 May 2018 29 May 2018	Low Tide (it)	1525
S6	29 May 2018 29 May 2018	Comments	Kelp; Seagrass; 1 Jogger; 3 Persons; Water clear
	20 Way 2010	Commente	100, 00091000, 1 009901, 0 1 010010, Walt Utal
S8	01 May 2018	Arrive Time	1046
S8	01 May 2018	Weather	Cloudy
S8	01 May 2018	Wind Speed (kts)	5.2
S8	01 May 2018 01 May 2018	Wind Dir	W
S8	01 May 2018 01 May 2018	Animal Life	None
S8	01 May 2018 01 May 2018	Floatables	None
50 S8	01 May 2018 01 May 2018	Water Color	Green
S8	01 May 2018 01 May 2018	Current Direction	W
50 S8	01 May 2018 01 May 2018	Water Temp (C)	15.6
58 S8	01 May 2018 01 May 2018	Wave Height Low (ft)	3
- 30	01 Way 2010	wave neight LOW (IL)	0

Station	Date	Parameter	Value
S8	01 May 2018	High Tide (ft)	3.9
S8	01 May 2018	High Tide Time	1102
S8	01 May 2018	Low Tide (ft)	1.4
S8	01 May 2018	Low Tide Time	1625
S8	01 May 2018	Comments	Kelp; Seagrass; 3 Persons; Water clear; State parks crew perform-
			ing sand construction by sample site
S8	08 May 2018	Arrive Time	1120
S8	08 May 2018	Weather	Cloudy
S8	08 May 2018	Wind Speed (kts)	3.3
S8	08 May 2018	Wind Dir	SW
S8	08 May 2018	Animal Life	None
S8	08 May 2018	Floatables	None
S8	08 May 2018	Water Color	Green
S8	08 May 2018	Current Direction	N
S8	08 May 2018	Water Temp (C)	16
S8	08 May 2018	Wave Height Low (ft)	3
S8	08 May 2018	High Tide (ft)	3.8
S8	08 May 2018	High Tide Time	1817
S8	08 May 2018	Low Tide (ft)	0.6
S8	08 May 2018	Low Tide Time	1115
S8	08 May 2018	Comments	Kelp; Seagrass; Water clear
	, ,		
S8	15 May 2018	Arrive Time	1145
S8	15 May 2018	Weather	Partly Cloudy
S8	15 May 2018	Wind Speed (kts)	9.3
S8	15 May 2018	Wind Dir	Ν
S8	15 May 2018	Animal Life	None
S8	15 May 2018	Floatables	None
S8	15 May 2018	Water Color	Green
S8	15 May 2018	Current Direction	Ν
S8	15 May 2018	Water Temp (C)	16.1
S8	15 May 2018	Wave Height Low (ft)	2
S8	15 May 2018	High Tide (ft)	4.2
S8	15 May 2018	High Tide Time	1004
S8	15 May 2018	Low Tide (ft)	1
S8	15 May 2018	Low Tide Time	1531
S8	15 May 2018	Comments	2 Persons; Water clear
S8	22 May 2018	Arrive Time	1120
S8	22 May 2018	Weather	Sunny
S8	22 May 2018	Wind Speed (kts)	7.9
S8	22 May 2018	Wind Dir	W
S8	22 May 2018	Animal Life	None
S8	22 May 2018	Floatables	None
S8	22 May 2018	Water Color	Green
S8	22 May 2018	Current Direction	Ν
S8	22 May 2018	Water Temp (C)	15
S8	22 May 2018	Wave Height Low (ft)	3
S8	22 May 2018	High Tide (ft)	4.4
S8	22 May 2018	High Tide Time	1736
S8	22 May 2018	Low Tide (ft)	0
S8	22 May 2018	Low Tide Time	1042
S8	22 May 2018	Comments	Kelp; Seagrass; Water clear

Station	Date	Parameter	Value
S8	29 May 2018	Arrive Time	1221
S8	29 May 2018	Weather	Overcast
S8	29 May 2018	Wind Speed (kts)	7.1
S8	29 May 2018	Wind Dir	Ν
S8	29 May 2018	Animal Life	None
S8	29 May 2018	Floatables	None
S8	29 May 2018	Water Color	Green
S8	29 May 2018	Current Direction	S
S8	29 May 2018	Water Temp (C)	16
S8	29 May 2018	Wave Height Low (ft)	2
S8	29 May 2018	High Tide (ft)	3.8
S8	29 May 2018	High Tide Time	1016
S8	29 May 2018	Low Tide (ft)	1.6
S8	29 May 2018	Low Tide Time	1525
S8	29 May 2018	Comments	Kelp; Seagrass; 25 Persons; Water clear
	29 May 2010	Comments	Nelp, Seagrass, 23 reisons, Waler Clear
S9	01 May 2018	Arrive Time	1109
S9	01 May 2018	Weather	Cloudy
S9	01 May 2018	Wind Speed (kts)	5.8
S9	01 May 2018	Wind Dir	W
S9	01 May 2018	Animal Life	1 Shorebird
S9	01 May 2018	Floatables	None
S9	01 May 2018	Water Color	Green
S9	01 May 2018	Current Direction	W
S9	01 May 2018	Water Temp (C)	15
S9	01 May 2018 01 May 2018	Wave Height Low (ft)	2
S9 S9	01 May 2018 01 May 2018	High Tide (ft)	3.9
S9	-		1102
S9 S9	01 May 2018	High Tide Time	1.4
	01 May 2018	Low Tide (ft)	
S9	01 May 2018	Low Tide Time	1625
S9	01 May 2018	Comments	Kelp; Seagrass; 4 Persons; Water clear
S9	08 May 2018	Arrive Time	1155
S9	08 May 2018	Weather	Cloudy
S9	08 May 2018	Wind Speed (kts)	3.8
S9	08 May 2018	Wind Dir	SW
S9	08 May 2018	Animal Life	None
S9	08 May 2018	Floatables	None
S9	08 May 2018	Water Color	Green
S9	08 May 2018	Current Direction	N
S9	08 May 2018	Water Temp (C)	15
S9	08 May 2018	Wave Height Low (ft)	2
S9 S9	08 May 2018	High Tide (ft)	3.8
S9 S9	08 May 2018	High Tide Time	1817
S9 S9	08 May 2018	Low Tide (ft)	0.6
59 S9	-	Low Tide (it)	
59 59	08 May 2018 08 May 2018	Comments	1115 Kolo: Separase: Water clear
59	00 Way 2018	Comments	Kelp; Seagrass; Water clear
S9	15 May 2018	Arrive Time	1225
S9	15 May 2018	Weather	Sunny
S9	15 May 2018	Wind Speed (kts)	8.7
S9	15 May 2018	Wind Dir	N
S9	15 May 2018	Animal Life	None
S9	15 May 2018	Floatables	None
S9	15 May 2018	Water Color	Green
09	13 May 2010		Older

Station	Date	Parameter	Value
S9	15 May 2018	Current Direction	N
S9	15 May 2018	Water Temp (C)	17
S9	15 May 2018	Wave Height Low (ft)	2
S9	15 May 2018	High Tide (ft)	4.2
S9	15 May 2018	High Tide Time	1004
S9	15 May 2018	Low Tide (ft)	1
S9	15 May 2018	Low Tide Time	1531
S9	15 May 2018	Comments	Seagrass; 4 Persons; Water clear
00	10 may 2010	Commonito	
S9	22 May 2018	Arrive Time	1212
S9	22 May 2018	Weather	Sunny
S9	22 May 2018	Wind Speed (kts)	6.6
S9	22 May 2018	Wind Dir	W
S9	22 May 2018	Animal Life	None
S9	22 May 2018	Floatables	None
S9	22 May 2018	Water Color	Green
S9	22 May 2018	Current Direction	N
S9	22 May 2018	Water Temp (C)	15
S9	22 May 2018	Wave Height Low (ft)	2
S9	22 May 2018	High Tide (ft)	4.4
S9	22 May 2018	High Tide Time	1736
S9	22 May 2018 22 May 2018	Low Tide (ft)	0
S9	22 May 2018 22 May 2018	Low Tide Time	1042
S9	•	Comments	
39	22 May 2018	Comments	Kelp; Seagrass; Water clear
S9	29 May 2018	Arrive Time	1305
S9	29 May 2018	Weather	Overcast
S9	29 May 2018	Wind Speed (kts)	5
S9	29 May 2018	Wind Dir	N
S9	29 May 2018	Animal Life	None
S9	29 May 2018	Floatables	None
S9	29 May 2018	Water Color	Green
S9	29 May 2018	Current Direction	N
S9	29 May 2018	Water Temp (C)	16
S9	29 May 2018	Wave Height Low (ft)	3
S9	29 May 2018	High Tide (ft)	3.8
S9	29 May 2018	High Tide Time	1016
S9	29 May 2018	Low Tide (ft)	1.6
S9	29 May 2018 29 May 2018	Low Tide Time	1525
S9	29 May 2018	Comments	Seagrass; 11 Persons; Water clear
00	20 May 2010	Johnnonto	
S10	01 May 2018	Arrive Time	841
S10	01 May 2018	Weather	Cloudy
S10	01 May 2018	Wind Speed (kts)	2.7
S10	01 May 2018	Wind Dir	S
S10	01 May 2018	Animal Life	None
S10	01 May 2018	Floatables	Foam
S10	01 May 2018	Water Color	Green
S10	01 May 2018	Current Direction	S
S10	01 May 2018	Water Temp (C)	15
S10	01 May 2018	Wave Height Low (ft)	4
S10 S10	01 May 2018	High Tide (ft)	3.9
S10 S10	01 May 2018	High Tide Time	1102
S10 S10	01 May 2018	Low Tide (ft)	-0.5
S10 S10	01 May 2018 01 May 2018	Low Tide Time	455
510	01 May 2010		- VUT

Station	Date	Parameter	Value
S10	01 May 2018	Comments	Kelp; Seagrass; Debris; Water clear
S10	08 May 2018	Arrive Time	846
S10	08 May 2018	Weather	Cloudy
S10	08 May 2018	Wind Speed (kts)	3.3
S10	08 May 2018	Wind Dir	W
S10	08 May 2018	Animal Life	None
S10	08 May 2018	Floatables	None
S10	08 May 2018	Water Color	Green
S10	08 May 2018	Current Direction	N
S10	08 May 2018	Water Temp (C)	14
S10	08 May 2018	Wave Height Low (ft)	3
S10	08 May 2018	High Tide (ft)	3.6
S10	08 May 2018	High Tide Time	351
S10	08 May 2018	Low Tide (ft)	0.6
S10	08 May 2018	Low Tide Time	1115
S10 S10	•	Comments	
310	08 May 2018	Comments	Kelp; Seagrass; Water clear
S10	15 May 2018	Arrive Time	847
S10 S10	15 May 2018	Weather	Overcast
S10	15 May 2018	Wind Speed (kts)	6
S10 S10	-	Wind Dir	NW
	15 May 2018	Animal Life	
S10	15 May 2018		None
S10	15 May 2018	Floatables	None
S10	15 May 2018	Water Color	Green
S10	15 May 2018	Current Direction	N 10
S10	15 May 2018	Water Temp (C)	16
S10	15 May 2018	Wave Height Low (ft)	2
S10	15 May 2018	High Tide (ft)	4.2
S10	15 May 2018	High Tide Time	1004
S10	15 May 2018	Low Tide (ft)	-0.9
S10	15 May 2018	Low Tide Time	356
S10	15 May 2018	Comments	Water clear
C10	22 May 2010		0.44
S10	22 May 2018	Arrive Time	841 Olaudu
S10	22 May 2018	Weather	Cloudy
S10	22 May 2018	Wind Speed (kts)	6.8 CW
S10	22 May 2018	Wind Dir	SW
S10	22 May 2018	Animal Life	None
S10	22 May 2018	Floatables	None
S10	22 May 2018	Water Color	Green
S10	22 May 2018	Current Direction	N
S10	22 May 2018	Water Temp (C)	14
S10	22 May 2018	Wave Height Low (ft)	4
S10	22 May 2018	High Tide (ft)	4.3
S10	22 May 2018	High Tide Time	331
S10	22 May 2018	Low Tide (ft)	0
S10	22 May 2018	Low Tide Time	1042
S10	22 May 2018	Comments	Kelp; Seagrass; Water clear
S10	29 May 2018	Arrive Time	841
S10	29 May 2018	Weather	Overcast
S10	29 May 2018	Wind Speed (kts)	6.8
S10	29 May 2018	Wind Dir	S
S10	29 May 2018	Animal Life	None
Station	Date	Parameter	Value
---------	-------------	----------------------	---
S10	29 May 2018	Floatables	None
S10	29 May 2018	Water Color	Green
S10	29 May 2018	Current Direction	Ν
S10	29 May 2018	Water Temp (C)	15
S10	29 May 2018	Wave Height Low (ft)	2
S10	29 May 2018	High Tide (ft)	3.8
S10	29 May 2018	High Tide Time	1016
S10	29 May 2018	Low Tide (ft)	-0.6
S10	29 May 2018	Low Tide Time	407
S10	29 May 2018	Comments	Water clear
	,		
S11	01 May 2018	Arrive Time	949
S11	01 May 2018	Weather	Cloudy
S11	01 May 2018	Wind Speed (kts)	6.4
S11	01 May 2018	Wind Dir	W
S11	01 May 2018	Animal Life	1 Dog
S11	01 May 2018	Floatables	Dead Animals
S11	01 May 2018	Water Color	Green
S11	01 May 2018	Current Direction	W
S11	01 May 2018	Water Temp (C)	14.4
S11	01 May 2018	Wave Height Low (ft)	4
S11	01 May 2018	High Tide (ft)	3.9
S11	01 May 2018	High Tide Time	1102
S11	01 May 2018	Low Tide (ft)	-0.5
S11	01 May 2018	Low Tide Time	455
S11	01 May 2018	Comments	Kelp; Seagrass; Debris; 1 Person; Water clear
511	01 May 2010	Comments	Neip, Seagrass, Debris, Treison, Water clear
S11	08 May 2018	Arrive Time	955
S11	08 May 2018	Weather	Cloudy
S11	08 May 2018	Wind Speed (kts)	4.2
S11	08 May 2018	Wind Dir	W
S11	08 May 2018	Animal Life	None
S11	08 May 2018	Floatables	None
S11	08 May 2018	Water Color	Green
S11	08 May 2018	Current Direction	Ν
S11	08 May 2018	Water Temp (C)	13
S11	08 May 2018	Wave Height Low (ft)	2
S11	08 May 2018	High Tide (ft)	3.6
S11	08 May 2018	High Tide Time	351
S11	08 May 2018	Low Tide (ft)	0.6
S11	08 May 2018	Low Tide Time	1115
S11	08 May 2018	Comments	Kelp; Seagrass; Water clear
	4E M 0040		4022
S11	15 May 2018	Arrive Time	1022 Oursest
S11	15 May 2018	Weather	Overcast
S11	15 May 2018	Wind Speed (kts)	10.1
S11	15 May 2018	Wind Dir	N
S11	15 May 2018	Animal Life	None
S11	15 May 2018	Floatables	None
S11	15 May 2018	Water Color	Green
S11	15 May 2018	Current Direction	N
S11	15 May 2018	Water Temp (C)	16
S11	15 May 2018	Wave Height Low (ft)	2
S11	15 May 2018	High Tide (ft)	4.2
S11	15 May 2018	High Tide Time	1004

Station	Date	Parameter	Value
S11	15 May 2018	Low Tide (ft)	1
S11	15 May 2018	Low Tide Time	1531
S11	15 May 2018	Comments	Kelp; Seagrass; Water clear
	-		
S11	22 May 2018	Arrive Time	956
S11	22 May 2018	Weather	Cloudy
S11	22 May 2018	Wind Speed (kts)	5
S11	22 May 2018	Wind Dir	W
S11	22 May 2018	Animal Life	None
S11	22 May 2018	Floatables	None
S11	22 May 2018	Water Color	Green
S11	22 May 2018	Current Direction	N
S11	22 May 2018	Water Temp (C)	14
S11	22 May 2018	Wave Height Low (ft)	3
S11	22 May 2018	High Tide (ft)	4.3
S11	22 May 2018	High Tide Time	331
S11	22 May 2018	Low Tide (ft)	0
S11	22 May 2018	Low Tide Time	1042
S11	22 May 2018 22 May 2018	Comments	Kelp; Seagrass; Water clear
511	22 May 2010	Comments	Neip, Seagrass, Water Clear
S11	29 May 2018	Arrive Time	1024
S11	-	Weather	Overcast
1	29 May 2018		
S11	29 May 2018	Wind Speed (kts) Wind Dir	4
S11	29 May 2018		N
S11	29 May 2018	Animal Life	None
S11	29 May 2018	Floatables	None
S11	29 May 2018	Water Color	Green
S11	29 May 2018	Current Direction	N
S11	29 May 2018	Water Temp (C)	16
S11	29 May 2018	Wave Height Low (ft)	2
S11	29 May 2018	High Tide (ft)	3.8
S11	29 May 2018	High Tide Time	1016
S11	29 May 2018	Low Tide (ft)	1.6
S11	29 May 2018	Low Tide Time	1525
S11	29 May 2018	Comments	Kelp; Seagrass; Water clear
040	04 May 0040	A	4000
S12	01 May 2018	Arrive Time	1003 Olaudu
S12	01 May 2018	Weather	Cloudy
S12	01 May 2018	Wind Speed (kts)	4.2
S12	01 May 2018	Wind Dir	W
S12	01 May 2018	Animal Life	None
S12	01 May 2018	Floatables	Foam
S12	01 May 2018	Water Color	Green
S12	01 May 2018	Current Direction	W
S12	01 May 2018	Water Temp (C)	14.8
S12	01 May 2018	Wave Height Low (ft)	3
S12	01 May 2018	High Tide (ft)	3.9
S12	01 May 2018	High Tide Time	1102
S12	01 May 2018	Low Tide (ft)	-0.5
S12	01 May 2018	Low Tide Time	455
S12	01 May 2018	Comments	Kelp; Seagrass; Debris; Water clear
S12	08 May 2018	Arrive Time	1005
S12	08 May 2018	Weather	Cloudy
S12	08 May 2018	Wind Speed (kts)	4.6

Station	Date	Parameter	Value
S12	08 May 2018	Wind Dir	SW
S12	08 May 2018	Animal Life	None
S12	08 May 2018	Floatables	None
S12	08 May 2018	Water Color	Green
S12	08 May 2018	Current Direction	Ν
S12	08 May 2018	Water Temp (C)	14
S12	08 May 2018	Wave Height Low (ft)	3
S12	08 May 2018	High Tide (ft)	3.6
S12	08 May 2018	High Tide Time	351
S12	08 May 2018	Low Tide (ft)	0.6
S12	08 May 2018	Low Tide Time	1115
S12 S12	-	Comments	
512	08 May 2018	Comments	Kelp; Seagrass; Water clear
S12	15 May 2018	Arrive Time	1035
S12	15 May 2018	Weather	Cloudy
S12	15 May 2018	Wind Speed (kts)	12.1
S12	15 May 2018	Wind Dir	N
S12	15 May 2018	Animal Life	None
S12	15 May 2018	Floatables	None
S12 S12	15 May 2018	Water Color	Green
S12 S12	-	Current Direction	N
	15 May 2018		15.1
S12	15 May 2018	Water Temp (C)	
S12	15 May 2018	Wave Height Low (ft)	2
S12	15 May 2018	High Tide (ft)	4.2
S12	15 May 2018	High Tide Time	1004
S12	15 May 2018	Low Tide (ft)	1
S12	15 May 2018	Low Tide Time	1531
S12	15 May 2018	Comments	Seagrass; 2 Persons; Water clear
S12	22 May 2018	Arrive Time	1009
S12	22 May 2018	Weather	Partly Cloudy
S12 S12	22 May 2018 22 May 2018	Wind Speed (kts)	6.9
S12 S12	-	Wind Dir	W
	22 May 2018	Animal Life	
S12	22 May 2018		None
S12	22 May 2018	Floatables	None
S12	22 May 2018	Water Color	Green
S12	22 May 2018	Current Direction	N 47
S12	22 May 2018	Water Temp (C)	17
S12	22 May 2018	Wave Height Low (ft)	3
S12	22 May 2018	High Tide (ft)	4.3
S12	22 May 2018	High Tide Time	331
S12	22 May 2018	Low Tide (ft)	0
S12	22 May 2018	Low Tide Time	1042
S12	22 May 2018	Comments	Kelp; Seagrass; 2 Persons; 1 Fisherman; Water clear
040	00 May 0040	Annis da Tina -	4020
S12	29 May 2018	Arrive Time	1038 Outproset
S12	29 May 2018	Weather	Overcast
S12	29 May 2018	Wind Speed (kts)	2
S12	29 May 2018	Wind Dir	N
S12	29 May 2018	Animal Life	1 Dog
S12	29 May 2018	Floatables	None
S12	29 May 2018	Water Color	Green
S12	29 May 2018	Current Direction	Ν
S12	29 May 2018	Water Temp (C)	16
S12	29 May 2018	Wave Height Low (ft)	2

Station	Date	Parameter	Value
S12	29 May 2018	High Tide (ft)	3.8
S12	29 May 2018	High Tide Time	1016
S12	29 May 2018	Low Tide (ft)	1.6
S12	29 May 2018	Low Tide Time	1525
S12	29 May 2018	Comments	Kelp; Seagrass; 8 Persons; 2 Surfers; Water clear



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	l19	124	125	126	132	139	I40
01 May 2018	52	4	3	2	2	2	7
02 May 2018	16*	3*	2*	2*	2*	2*	5*
03 May 2018	16*	3*	2*	2*	2*	2*	5*
04 May 2018	16*	3*	2*	2*	2*	2*	5*
05 May 2018	16*	3*	2*	2*	2*	2*	5*
06 May 2018	16*	3*	2*	2*	2*	2*	5*
07 May 2018	14	3	2	2	2	2	4
08 May 2018	14	3	2	2	2	2	4
09 May 2018	13*	3*	2*	2*	2*	2*	5*
10 May 2018	13*	3*	2*	2*	2*	2*	5*
11 May 2018	13*	3*	2*	2*	2*	2*	5*
12 May 2018	13*	3*	2*	2*	2*	2*	5*
13 May 2018	13*	3*	2*	2*	2*	2*	5*
14 May 2018	14	3	2	3	2	3	6
15 May 2018	14	3	2	3	2	3	6
16 May 2018	23*	3*	2*	3*	2*	3*	7*
17 May 2018	23*	3*	2*	3*	2*	3*	7*
18 May 2018	23*	3*	2*	3*	2*	3*	7*
19 May 2018	23*	3*	2*	3*	2*	3*	7*
20 May 2018	23*	3*	2*	3*	2*	3*	7*
21 May 2018	21	3	2	3	3	3	8
22 May 2018	21	3	2	3	3	3	8
23 May 2018	14*	3*	2*	3*	3*	3*	5*
24 May 2018	14*	3*	2*	3*	3*	3*	5*
25 May 2018	14*	3*	2*	3*	3*	3*	5*
26 May 2018	14*	3*	2*	3*	3*	3*	5*
27 May 2018	14*	3*	2*	3*	3*	3*	5*
28 May 2018	14*	3*	2*	3*	3*	3*	5*
29 May 2018	14	3	2	3	3	3	4
30 May 2018	13*	3*	2*	3*	3*	3*	5*
31 May 2018	13*	3*	2*	3*	3*	3*	5*

* Geometric mean calculated using n<5

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	124	125	126	132	139	140
01 May 2018	7	2	2	2	2	2	2
02 May 2018	3*	2*	2*	2*	2*	2*	2*
03 May 2018	3*	2*	2*	2*	2*	2*	2*
04 May 2018	3*	2*	2*	2*	2*	2*	2*
05 May 2018	3*	2*	2*	2*	2*	2*	2*
06 May 2018	3*	2*	2*	2*	2*	2*	2*
07 May 2018	2	2	2	2	2	2	2
08 May 2018	2	2	2	2	2	2	2
09 May 2018	3*	2*	2*	2*	2*	2*	2*
10 May 2018	3*	2*	2*	2*	2*	2*	2*
11 May 2018	3*	2*	2*	2*	2*	2*	2*
12 May 2018	3*	2*	2*	2*	2*	2*	2*
13 May 2018	3*	2*	2*	2*	2*	2*	2*
14 May 2018	2	2	2	2	2	2	2
15 May 2018	2	2	2	2	2	2	2
16 May 2018	3*	2*	2*	2*	2*	2*	2*
17 May 2018	3*	2*	2*	2*	2*	2*	2*
18 May 2018	3*	2*	2*	2*	2*	2*	2*
19 May 2018	3*	2*	2*	2*	2*	2*	2*
20 May 2018	3*	2*	2*	2*	2*	2*	2*
21 May 2018	3	2	2	2	2	2	2
22 May 2018	3	2	2	2	2	2	2
23 May 2018	2*	2*	2*	2*	2*	2*	2*
24 May 2018	2*	2*	2*	2*	2*	2*	2*
25 May 2018	2*	2*	2*	2*	2*	2*	2*
26 May 2018	2*	2*	2*	2*	2*	2*	2*
27 May 2018	2*	2*	2*	2*	2*	2*	2*
28 May 2018	2*	2*	2*	2*	2*	2*	2*
29 May 2018	2	2	2	2	2	2	2
30 May 2018	2*	2*	2*	2*	2*	2*	2*
31 May 2018	2*	2*	2*	2*	2*	2*	2*

* Geometric mean calculated using n<5

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	l19	124	125	126	132	139	140
01 May 2018	7	2	2	2	2	2	2
02 May 2018	3*	2*	2*	2*	2*	2*	2*
03 May 2018	3*	2*	2*	2*	2*	2*	2*
04 May 2018	3*	2*	2*	2*	2*	2*	2*
05 May 2018	3*	2*	2*	2*	2*	2*	2*
06 May 2018	3*	2*	2*	2*	2*	2*	2*
07 May 2018	2	2	2	2	2	2	2
08 May 2018	2	2	2	2	2	2	2
09 May 2018	3*	2*	2*	2*	2*	2*	2*
10 May 2018	3*	2*	2*	2*	2*	2*	2*
11 May 2018	3*	2*	2*	2*	2*	2*	2*
12 May 2018	3*	2*	2*	2*	2*	2*	2*
13 May 2018	3*	2*	2*	2*	2*	2*	2*
14 May 2018	2	2	2	2	2	2	2
15 May 2018	2	2	2	2	2	2	2
16 May 2018	3*	2*	2*	2*	2*	2*	2*
17 May 2018	3*	2*	2*	2*	2*	2*	2*
18 May 2018	3*	2*	2*	2*	2*	2*	2*
19 May 2018	3*	2*	2*	2*	2*	2*	2*
20 May 2018	3*	2*	2*	2*	2*	2*	2*
21 May 2018	2	2	2	3	2	2	2
22 May 2018	2	2	2	3	2	2	2
23 May 2018	2*	2*	2*	3*	2*	2*	2*
24 May 2018	2*	2*	2*	3*	2*	2*	2*
25 May 2018	2*	2*	2*	3*	2*	2*	2*
26 May 2018	2*	2*	2*	3*	2*	2*	2*
27 May 2018	2*	2*	2*	3*	2*	2*	2*
28 May 2018	2*	2*	2*	3*	2*	2*	2*
29 May 2018	2	2	2	3	2	2	2
30 May 2018	2*	2*	2*	3*	2*	2*	2*
31 May 2018	2*	2*	2*	3*	2*	2*	2*

* Geometric mean calculated using n<5

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	l19	124	125	126	132	139	I40
07 May 2018	IC						
14 May 2018	IC						
21 May 2018	IC						
29 May 2018	IC						

IC = In Compliance E = Exceedance

ns = not sampled

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	l19	124	125	126	132	139	I40
07 May 2018	IC						
14 May 2018	IC						
21 May 2018	IC						
29 May 2018	IC						

IC = In Compliance E = Exceedance

ns = not sampled

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	l19	124	125	126	132	139	I40
07 May 2018	IC						
14 May 2018	IC						
21 May 2018	IC						
29 May 2018	IC						

IC = In Compliance

E = Exceedance

ns = not sampled

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	l19	124	125	126	132	139	I40
07 May 2018	IC						
14 May 2018	IC						
21 May 2018	IC						
29 May 2018	IC						

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

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 co-liform 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	pН
I19	07 May 2018	1238	2	<2	<2	<2	1.0	15.6	72.90	8.0	33.66	8.1
I19	07 May 2018	1238	6	<2	<2	<2	1.0	14.6	71.50	7.2	33.69	8.0
I19	07 May 2018	1238	11	<20	<2	<2	0.1	11.3	50.37	4.8	33.66	7.8
I19	14 May 2018	1208	2	<20	<2	<2	0.1	16.2	68.67	8.7	33.65	8.2
I19	14 May 2018	1208	6	<20	<2	<2	0.1	15.1	68.87	9.4	33.66	8.2
119	14 May 2018	1208	11	<20	<2	<2	0.1	14.0	54.25	9.5	33.64	8.2
						-			0			0
I19	21 May 2018	1120	2	4e	<2	<2	0.5	16.4	59.66	9.3	33.62	8.3
I19	21 May 2018	1120	6	20e	4e	<2	0.2	16.3	56.09	8.8	33.63	8.2
I19	21 May 2018	1120	11	20e	<2	<2	0.1	15.7	38.31	8.0	33.62	8.2
						-					00.02	0
I19	29 May 2018	1059	2	<20	4e	<2	0.2	16.1	64.02	8.4	33.63	8.1
119	29 May 2018	1059	6	20e	<2	<2	0.1	13.2	60.98	5.6	33.65	7.9
119	29 May 2018	1059	11	<2	<2	<2	1.0	11.6	59.57	3.1	33.59	7.7
						-						
124	07 May 2018	1304	2	<2	<2	<2	1.0	15.0	79.16	7.5	33.66	8.0
124	07 May 2018	1304	6	<2	<2	<2	1.0	13.6	73.54	6.8	33.67	8.0
124	07 May 2018	1304	11	<2	<2	<2	1.0	11.4	83.38	5.2	33.65	7.9
	or may 2010	1001		-		~-	1.0		00.00	0.2		1.0
124	14 May 2018	1233	2	2e	<2	<2	1.0	16.7	71.02	9.7	33.63	8.3
124	14 May 2018	1233	6	<2	<2	<2	1.0	15.0	77.14	10.0	33.65	8.3
124	14 May 2018	1233	11	<2	<2	<2	1.0	14.4	75.14	10.0	33.63	8.2
	11 may 2010	1200				~-	1.0		10.11			0.2
124	21 May 2018	1149	2	<2	<2	2e	1.0	16.2	73.68	9.4	33.66	8.3
124	21 May 2018	1149	6	<2	<2	2e	1.0	16.1	67.97	8.8	33.66	8.2
124	21 May 2018	1149	11	<20	<2	<2	0.1	15.3	61.58	7.8	33.62	8.1
	21 may 2010			~20		~-	0.1	10.0	01.00	1.0	00.02	0.1
124	29 May 2018	1123	2	2e	<2	<2	1.0	16.4	66.19	8.9	33.63	8.2
124	29 May 2018	1123	6	<2	<2	2e	1.0	12.8	73.88	5.8	33.59	8.0
124	29 May 2018	1123	11	<2	<2	<2	1.0	11.6	56.97	3.3	33.59	7.7
124	2010/02010	1120				~~	1.0	11.0	00.07	0.0	00.00	1.1
125	07 May 2018	1314	2	<2	<2	<2	1.0	14.9	79.14	7.3	33.66	8.0
125	07 May 2018	1314	6	<2	<2	<2	1.0	13.7	75.39	7.0	33.65	8.0
125	07 May 2018	1314	9	<2	<2	<2	1.0	11.6	82.26	5.6	33.66	7.9
120	07 May 2010		Ŭ	~~	~~	~~	1.0	11.0	02.20	0.0	00.00	1.0
125	14 May 2018	1241	2	<2	<2	<2	1.0	16.7	74.02	9.8	33.66	8.3
125	14 May 2018	1241	6	<2	<2	<2	1.0	15.1	76.53	10.0	33.68	8.3
125	14 May 2018	1241	9	<2	<2	<2	1.0	14.6	75.23	9.6	33.65	8.2
125	14 May 2010	1241	3	~~	~~	~2	1.0	14.0	15.25	3.0	00.00	0.2
125	21 May 2018	1155	2	<2	<2	4e	1.0	16.2	71.42	9.6	33.50	8.3
125	21 May 2018 21 May 2018	1155	6	<2	<2	4e <2	1.0	16.1	75.25	9.6	33.66	8.3
125	21 May 2018 21 May 2018	1155	9	2e	<2	<2	1.0	15.3	57.26	7.9	33.64	8.2
125	2 1 Way 2010	1155	3	20	`∠	~~	1.0	15.5	57.20	1.5	00.04	0.2
125	29 May 2018	1132	2	<2	<2	<2	1.0	16.7	69.93	9.5	33.63	8.2
125	29 May 2018 29 May 2018	1132	6	<2	<2	<2 4e	1.0	13.8	57.66	9.5 8.8	33.67	0.2 8.2
125	29 May 2018 29 May 2018	1132	9	2e	<2	4e <2	1.0	12.2	76.97	0.0 4.9	33.58	0.2 7.8
120	23 Way 2010	1132	3	26	<u> </u>	<u></u>	1.0	12.2	10.91	4.9	33.30	1.0

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	рН
100	07 Mar 0040	4005	0	-0	-0	-0	10	44.0	00.00	7.4	00.00	
126	07 May 2018	1325	2	<2	<2	<2	1.0	14.8	80.02	7.4	33.66	8.0
126	07 May 2018	1325	6	<2	<2	<2	1.0	13.4	71.70	7.1	33.68	8.0
126	07 May 2018	1325	9	<2	<2	<2	1.0	11.3	80.05	5.4	33.67	7.9
126	14 May 2018	1251	2	<20	<2	<2	0.1	16.8	64.17	9.6	33.66	8.3
126	14 May 2018	1251	6	<20	<2	<2	0.1	15.5	74.79	9.6	33.67	8.2
126	14 May 2018	1251	9	2e	<2	<2	1.0	14.8	70.93	9.4	33.65	8.2
			-									
126	21 May 2018	1207	2	<2	<2	20e	1.0	16.2	74.70	9.5	33.66	8.3
126	21 May 2018	1207	6	<2	<2	2e	1.0	16.1	75.81	9.4	33.66	8.3
126	21 May 2018	1207	9	2e	<2	<2	1.0	14.9	66.80	8.0	33.62	8.1
126	29 May 2018	1143	2	<2	<2	<2	1.0	16.8	71.01	9.6	33.65	8.2
126	29 May 2018	1143	6	2e	<2	<2	1.0	13.6	57.75	8.4	33.63	8.2
126	29 May 2018	1143	9	<2	<2	<2	1.0	11.9	81.26	5.2	33.59	7.9
120	20 May 2010	1140	Ū	~~		~~	1.0	11.0	01.20	0.2	00.00	1.0
132	07 May 2018	1339	2	<2	<2	<2	1.0	15.3	72.50	8.2	33.66	8.1
132	07 May 2018	1339	6	<2	<2	<2	1.0	15.2	73.20	8.2	33.66	8.1
132	07 May 2018	1339	9	2e	<2	<2	1.0	13.5	56.70	6.4	33.75	8.0
132	14 May 2018	1306	2	<2	<2	<2	1.0	16.3	70.52	9.8	33.64	8.3
132	14 May 2018	1306	6	<2	<2	<2	1.0	16.3	72.28	9.7	33.65	8.3
132	14 May 2018	1306	9	<2	<2	<2	1.0	15.3	48.90	8.6	33.65	8.2
132	21 May 2018	1220	2	<2	<2	<2	1.0	16.4	68.56	8.8	33.66	8.2
132	21 May 2018 21 May 2018	1220	6	<20	<2	<2	0.1	16.3	68.13	8.8	33.66	8.2
132	21 May 2018 21 May 2018	1220	9	<20	<2	<2	0.1	16.2	57.86	8.7	33.66	8.2
152	21 Way 2016	1220	9	<20	< <u> </u>	<2	0.1	10.2	57.00	0.7	33.00	0.2
132	29 May 2018	1158	2	<2	<2	<2	1.0	16.8	67.52	8.8	33.63	8.2
132	29 May 2018	1158	6	<2	<2	<2	1.0	12.7	62.74	7.2	33.58	8.1
132	29 May 2018	1158	9	<2	<2	<2	1.0	11.7	68.04	2.9	33.57	7.7
			-									
139	07 May 2018	1213	2	<2	<2	<2	1.0	14.9	78.25	7.7	33.65	8.1
139	07 May 2018	1213	12	<2	<2	<2	1.0	11.0	82.81	4.8	33.67	7.8
139	07 May 2018	1213	18	<2	<2	<2	1.0	10.9	84.94	4.0	33.69	7.8
139	14 May 2018	1143	2	<2	<2	<2	1.0	16.9	71.55	9.5	33.66	8.3
139	14 May 2018	1143	12	2e	<2	<2	1.0	14.1	77.03	9.9	33.64	8.2
139	14 May 2018	1143	12	<20	<2	<2	0.1	13.2	69.37	9.2	33.64	8.2
159	14 May 2010	1145	10	<20		~2	0.1	15.2	09.57	5.2	33.04	0.2
139	21 May 2018	1041	2	<2	<2	4e	1.0	16.2	78.21	9.4	33.66	8.3
139	21 May 2018	1041	12	<2	<2	2e	1.0	16.0	73.49	9.2	33.66	8.2
139	21 May 2018	1041	18	<2	<2	<2	1.0	11.9	72.06	4.7	33.59	7.8
			-	-		-						
139	29 May 2018	1034	2	<2	<2	<2	1.0	16.0	78.38	8.6	33.66	8.2
139	29 May 2018	1034	12	<2	<2	<2	1.0	14.9	70.28	8.3	33.63	8.2
139	29 May 2018	1034	18	<2	<2	<2	1.0	11.4	84.83	4.9	33.61	7.9
140	07 May 2018	1252	2	<2	<2	<2	1.0	15.7	73.64	8.1	33.65	8.1
140	07 May 2018	1252	6	<2	<2	<2	1.0	12.5	68.26	6.5	33.65	7.9
140	07 May 2018	1252	9	<2	<2	<2	1.0	11.4	72.76	4.8	33.66	7.8
			-			-						
I40 I40	14 May 2018	1221 1221	2 6	<20	<2 <2	<2 <2	0.1	16.6 15.2	68.20	9.2	33.66 33.65	8.2
140	14 May 2018	1221	σ	<2	<2	<2	1.0	10.2	75.14	9.9	33.05	8.3

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pН
140	14 May 2018	1221	9	20e	<2	<2	0.1	14.3	59.05	9.1	33.64	8.2
140	21 May 2018	1137	2	<2	<2	<2	1.0	16.5	66.33	9.3	33.66	8.3
140	21 May 2018	1137	6	<20	<2	<2	0.1	16.3	65.85	9.2	33.66	8.3
140	21 May 2018	1137	9	<20	<2	<2	0.1	16.2	56.08	8.9	33.66	8.2
140	29 May 2018	1114	2	<2	<2	<2	1.0	15.6	65.88	8.5	33.65	8.2
140	29 May 2018	1114	6	<2	<2	<2	1.0	13.0	69.93	5.7	33.60	7.9
140	29 May 2018	1114	9	<2	<2	<2	1.0	11.6	80.72	3.9	33.59	7.8

ns = not sampled

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

Station	Date	Parameter	Value
I19	07 May 2018	Depth (m)	11
I19	07 May 2018	Arrive Time	1238
I19	07 May 2018	Depart Time	1241
I19	07 May 2018	Air Temp (C)	15
I19	07 May 2018	Weather	Partly Cloudy
l19	07 May 2018	Visibility (mi)	11
I19	07 May 2018	Wind Speed (kts)	8
I19	07 May 2018	Wind Dir	W
I19	07 May 2018	Water Color	Greenish-Brown
I19	07 May 2018	Wave Ht Low (ft)	4
I19	07 May 2018	Wave Period (sec)	7
l19	07 May 2018	Sea State	Calm
l19	07 May 2018	High Tide (ft)	3.76
l19	07 May 2018	High Tide Time	213
l19	07 May 2018	Low Tide (ft)	0.67
l19	07 May 2018	Low Tide Time	1016
I19	07 May 2018	Comments	none
119	14 May 2018	Depth (m)	10
119	14 May 2018	Arrive Time	1208
119	14 May 2018	Depart Time	1210
119	14 May 2018	Air Temp (C)	16
119	14 May 2018	Weather	Partly Cloudy
119	14 May 2018	Visibility (mi)	12
119	14 May 2018	Wind Speed (kts)	12
119	14 May 2018	Wind Dir	NW
119	14 May 2018	Water Color	Bluish-Green
I19	14 May 2018	Wave Ht Low (ft)	4
119	14 May 2018	Wave Period (sec)	7
I19	14 May 2018	Sea State	Light chop
119	14 May 2018	High Tide (ft)	4.29
119	14 May 2018	High Tide Time	917
119	14 May 2018	Low Tide (ft)	0.78
119	14 May 2018	Low Tide Time	1456
119	14 May 2018	Comments	none
l19	21 May 2018	Depth (m)	10
119	21 May 2018 21 May 2018	Arrive Time	1120
119	21 May 2018 21 May 2018	Depart Time	1124
119	21 May 2018	Air Temp (C)	15
119	21 May 2018	Weather	Partly Cloudy
119	21 May 2018	Visibility (mi)	12
119	21 May 2018	Wind Speed (kts)	10
119	21 May 2018	Wind Dir	SW
119	21 May 2018	Water Color	Bluish-Green
119	21 May 2018	Wave Ht Low (ft)	4
119	21 May 2018	Wave Period (sec)	7
119	21 May 2018	Sea State	Confused swell
119	21 May 2018	High Tide (ft)	3.98
l19	21 May 2018	High Tide Time	1639
l19	21 May 2018	Low Tide (ft)	-0.23
-	,		1

Station	Date	Parameter	Value
I19	21 May 2018	Low Tide Time	936
119	21 May 2018	Comments	Horses on the beach
	,		
119	29 May 2018	Depth (m)	12
119	29 May 2018	Arrive Time	1059
119	29 May 2018	Depart Time	1103
119	29 May 2018	Air Temp (C)	16
119	29 May 2018	Weather	Partly Cloudy
119	29 May 2018	Visibility (mi)	5
119	29 May 2018	Wind Speed (kts)	5
119	29 May 2018	Wind Dir	W
119	29 May 2018	Water Color	Green
119	29 May 2018	Wave Ht Low (ft)	3
119	29 May 2018	Wave Period (sec)	11
119	29 May 2018 29 May 2018	Sea State	Calm
119	29 May 2018 29 May 2018		3.78
	29 May 2018 29 May 2018	High Tide (ft)	
I19 I19	,	High Tide Time	1016 1.61
	29 May 2018 29 May 2018	Low Tide (ft)	
I19	,	Low Tide Time	1525
119	29 May 2018	Comments	none
10.4	07 May 0040		
124	07 May 2018	Depth (m)	11
124	07 May 2018	Arrive Time	1304
124	07 May 2018	Depart Time	1308
124	07 May 2018	Air Temp (C)	14
124	07 May 2018	Weather	Partly Cloudy
124	07 May 2018	Visibility (mi)	11
124	07 May 2018	Wind Speed (kts)	8
124	07 May 2018	Wind Dir	W
124	07 May 2018	Water Color	Greenish-Brown
124	07 May 2018	Wave Ht Low (ft)	4
124	07 May 2018	Wave Period (sec)	7
124	07 May 2018	Sea State	Calm
124	07 May 2018	High Tide (ft)	3.76
124	07 May 2018	High Tide Time	213
124	07 May 2018	Low Tide (ft)	0.67
124	07 May 2018	Low Tide Time	1016
124	07 May 2018	Comments	none
124	14 May 2018	Depth (m)	10
124	14 May 2018	Arrive Time	1233
124	14 May 2018	Depart Time	1236
124	14 May 2018	Air Temp (C)	16
124	14 May 2018	Weather	Partly Cloudy
124	14 May 2018	Visibility (mi)	12
124	14 May 2018	Wind Speed (kts)	14
124	14 May 2018	Wind Dir	NW
124	14 May 2018	Water Color	Green
124	14 May 2018	Wave Ht Low (ft)	4
124	14 May 2018	Wave Period (sec)	7
124	14 May 2018	Sea State	Heavy chop
124	14 May 2018	High Tide (ft)	4.29
124	14 May 2018	High Tide Time	917
124	14 May 2018	Low Tide (ft)	0.78
124	14 May 2018	Low Tide Time	1456

Station	Date	Parameter	Value
124	14 May 2018	Comments	none
	, , , , , , , , , , , , , , , , , , ,		
124	21 May 2018	Depth (m)	10
124	21 May 2018	Arrive Time	1149
124	21 May 2018	Depart Time	1152
124	21 May 2018	Air Temp (C)	15
124	21 May 2018	Weather	Overcast
124	21 May 2018	Visibility (mi)	12
124	21 May 2018	Wind Speed (kts)	10
124	21 May 2018	Wind Dir	SW
124	21 May 2018	Water Color	Green
124	21 May 2018	Wave Ht Low (ft)	5
124	21 May 2018	Wave Period (sec)	7
124	21 May 2018	Sea State	Confused swell
124	21 May 2018	High Tide (ft)	3.98
124	21 May 2018	High Tide Time	1639
124	21 May 2018	Low Tide (ft)	-0.23
124	21 May 2018	Low Tide Time	936
124	21 May 2018 21 May 2018	Comments	Unable to obtain station depth
124	21 Way 2010	Commenta	
124	29 May 2018	Depth (m)	12
124	29 May 2018	Arrive Time	1123
124	29 May 2018 29 May 2018	Depart Time	1127
124	29 May 2018 29 May 2018	•	16
	29 May 2018 29 May 2018	Air Temp (C)	
124		Weather	Partly Cloudy
24 24	29 May 2018	Visibility (mi)	5 8
	29 May 2018	Wind Speed (kts)	o W
124	29 May 2018	Wind Dir	
124	29 May 2018	Water Color	Green
124	29 May 2018	Wave Ht Low (ft)	3
124	29 May 2018	Wave Period (sec)	11 Calm
124	29 May 2018	Sea State	Calm
124	29 May 2018	High Tide (ft)	3.78
124	29 May 2018	High Tide Time	1016
124	29 May 2018	Low Tide (ft)	1.61
124	29 May 2018	Low Tide Time	1525
124	29 May 2018	Comments	none
105	07.14	Denth ()	
125	07 May 2018	Depth (m)	9
125	07 May 2018	Arrive Time	1314
125	07 May 2018	Depart Time	1317
125	07 May 2018	Air Temp (C)	14 Deaths Olasada
125	07 May 2018	Weather	Partly Cloudy
125	07 May 2018	Visibility (mi)	11
125	07 May 2018	Wind Speed (kts)	8
125	07 May 2018	Wind Dir	SW
125	07 May 2018	Water Color	Greenish-Brown
125	07 May 2018	Wave Ht Low (ft)	4
125	07 May 2018	Wave Period (sec)	7
125	07 May 2018	Sea State	Calm
125	07 May 2018	High Tide (ft)	3.76
125	07 May 2018	High Tide Time	213
125	07 May 2018	Low Tide (ft)	0.67
125	07 May 2018	Low Tide Time	1016
125	07 May 2018	Comments	none

Station	Date	Parameter	Value
125	14 May 2018	Depth (m)	9
125	14 May 2018	Arrive Time	1241
125	14 May 2018	Depart Time	1243
125	14 May 2018	Air Temp (C)	16
125	14 May 2018	Weather	Partly Cloudy
125	14 May 2018	Visibility (mi)	12
125	14 May 2018	Wind Speed (kts)	14
125	14 May 2018	Wind Dir	NW
125	14 May 2018	Water Color	Green
125	14 May 2018	Wave Ht Low (ft)	4
125	14 May 2018	Wave Period (sec)	7
125	14 May 2018	Sea State	Heavy chop
125	14 May 2018	High Tide (ft)	4.29
125	14 May 2018	High Tide Time	917
125	14 May 2018	Low Tide (ft)	0.78
125	14 May 2018	Low Tide Time	1456
125	14 May 2018	Comments	none
_	- ,		
125	21 May 2018	Depth (m)	10
125	21 May 2018	Arrive Time	1155
125	21 May 2018	Depart Time	1200
125	21 May 2018	Air Temp (C)	15
125	21 May 2018	Weather	Overcast
125	21 May 2018	Visibility (mi)	12
125	21 May 2018	Wind Speed (kts)	11
125	21 May 2018	Wind Dir	SW
125	21 May 2018	Water Color	Green
125	21 May 2018	Wave Ht Low (ft)	5
125	21 May 2018	Wave Period (sec)	7
125	21 May 2018	Sea State	Confused swell
125	21 May 2018	High Tide (ft)	3.98
125	21 May 2018	High Tide Time	1639
125	21 May 2018	Low Tide (ft)	-0.23
125	21 May 2018	Low Tide Time	936
125	•		
12.5	21 May 2018	Comments	none
125	29 May 2018	Depth (m)	10
125	29 May 2018	Arrive Time	1132
125	29 May 2018 29 May 2018	Depart Time	1135
125	29 May 2018 29 May 2018	Air Temp (C)	16
125	29 May 2018 29 May 2018	Weather	Partly Cloudy
125	29 May 2018 29 May 2018	Visibility (mi)	5
125	29 May 2018 29 May 2018	Wind Speed (kts)	8
125	29 May 2018 29 May 2018	Wind Speed (kts) Wind Dir	o W
125	29 May 2018 29 May 2018	Water Color	Green
125	-		3
	29 May 2018	Wave Ht Low (ft)	3 11
125	29 May 2018	Wave Period (sec)	Calm
125	29 May 2018	Sea State	
125	29 May 2018	High Tide (ft)	3.78
125	29 May 2018	High Tide Time	1016
125	29 May 2018	Low Tide (ft)	1.61
125	29 May 2018	Low Tide Time	1525
125	29 May 2018	Comments	none

Station	Date	Parameter	Value
126	07 May 2018	Depth (m)	10
126	07 May 2018	Arrive Time	1325
126	07 May 2018	Depart Time	1329
126	07 May 2018	Air Temp (C)	15
126	07 May 2018	Weather	Partly Cloudy
126	07 May 2018	Visibility (mi)	11
126	07 May 2018	Wind Speed (kts)	8
126	07 May 2018	Wind Dir	SW
126	07 May 2018	Water Color	Greenish-Brown
126	07 May 2018	Wave Ht Low (ft)	4
126	07 May 2018	Wave Period (sec)	7
126	07 May 2018	Sea State	Calm
126	07 May 2018	High Tide (ft)	3.76
126	07 May 2018	High Tide Time	213
126	07 May 2018	Low Tide (ft)	0.67
126	07 May 2018	Low Tide Time	1016
126	07 May 2018	Comments	none
126	14 May 2018	Depth (m)	9
126	14 May 2018	Arrive Time	1251
126	14 May 2018	Depart Time	1254
126	14 May 2018	Air Temp (C)	16
126	14 May 2018	Weather	Partly Cloudy
126	14 May 2018	Visibility (mi)	12
126	14 May 2018	Wind Speed (kts)	11
126	14 May 2018	Wind Dir	NW
126	14 May 2018	Water Color	Green
126	14 May 2018	Wave Ht Low (ft)	4
126	14 May 2018	Wave Period (sec)	7
126	14 May 2018	Sea State	Heavy chop
126	14 May 2018	High Tide (ft)	4.29
126	14 May 2018	High Tide Time	917
126	14 May 2018	Low Tide (ft)	0.78
126	14 May 2018	Low Tide Time	1456
126	14 May 2018	Comments	none
100	04.14		
126	21 May 2018	Depth (m)	9
126	21 May 2018	Arrive Time	1207
126	21 May 2018	Depart Time	1210
126	21 May 2018	Air Temp (C)	15 Oursest
126	21 May 2018	Weather	Overcast
126	21 May 2018	Visibility (mi)	12
126	21 May 2018	Wind Speed (kts)	10
126	21 May 2018	Wind Dir	S
126	21 May 2018	Water Color	Green
126	21 May 2018	Wave Ht Low (ft)	5
126	21 May 2018	Wave Period (sec)	7 Confused swell
126	21 May 2018	Sea State	Confused swell
126	21 May 2018	High Tide (ft)	3.98
126	21 May 2018	High Tide Time	1639
126	21 May 2018	Low Tide (ft)	-0.23
126 126	21 May 2018 21 May 2018	Low Tide Time	936 Sea lion
120	21 Way 2010	Comments	
126	29 May 2018	Depth (m)	10

Station	Date	Parameter	Value
126	29 May 2018	Arrive Time	1143
126	29 May 2018	Depart Time	1148
126	29 May 2018	Air Temp (C)	16
126	29 May 2018	Weather	Partly Cloudy
126	29 May 2018	Visibility (mi)	5
126	29 May 2018	Wind Speed (kts)	6
126	29 May 2018	Wind Dir	SW
126	29 May 2018	Water Color	Green
126	29 May 2018	Wave Ht Low (ft)	3
126	29 May 2018	Wave Period (sec)	11
120	29 May 2018	Sea State	Calm
	-		
126	29 May 2018	High Tide (ft)	3.78
126	29 May 2018	High Tide Time	1016
126	29 May 2018	Low Tide (ft)	1.61
126	29 May 2018	Low Tide Time	1525
126	29 May 2018	Comments	none
132	07 May 2018	Depth (m)	10
132	07 May 2018	Arrive Time	1339
132	07 May 2018	Depart Time	1343
132	07 May 2018	Air Temp (C)	15
132	07 May 2018	Weather	Partly Cloudy
132	07 May 2018	Visibility (mi)	11
132	07 May 2018	Wind Speed (kts)	9
132	07 May 2018	Wind Dir	SW
132	07 May 2018	Water Color	Greenish-Brown
132	07 May 2018	Wave Ht Low (ft)	4
132	07 May 2018	Wave Period (sec)	7
132	07 May 2018	Sea State	Calm
132	07 May 2018	High Tide (ft)	3.76
132	07 May 2018	High Tide Time	213
132	07 May 2018	Low Tide (ft)	0.67
132	-	Low Tide Time	1016
	07 May 2018		
132	07 May 2018	Comments	none
122	14 May 2019	Donth (m)	0
132	14 May 2018	Depth (m)	9
132	14 May 2018	Arrive Time	1306
132	14 May 2018	Depart Time	1310
132	14 May 2018	Air Temp (C)	
132	14 May 2018	Weather	Partly Cloudy
132	14 May 2018	Visibility (mi)	12
132	14 May 2018	Wind Speed (kts)	12
132	14 May 2018	Wind Dir	NW
132	14 May 2018	Water Color	Green
132	14 May 2018	Wave Ht Low (ft)	4
132	14 May 2018	Wave Period (sec)	7
132	14 May 2018	Sea State	Heavy chop
132	14 May 2018	High Tide (ft)	4.29
132	14 May 2018	High Tide Time	917
132	14 May 2018	Low Tide (ft)	0.78
132	14 May 2018	Low Tide Time	1456
132	14 May 2018	Comments	none
132	21 May 2018	Depth (m)	9
132	21 May 2018 21 May 2018	Arrive Time	1220
١JZ	21 Way 2010		1220

Station	Date	Parameter	Value
132	21 May 2018	Depart Time	1223
132	21 May 2018	Air Temp (C)	15
132	21 May 2018	Weather	Overcast
132	21 May 2018	Visibility (mi)	12
132	21 May 2018	Wind Speed (kts)	10
132	21 May 2018	Wind Dir	SW
132	21 May 2018	Water Color	Green
132	21 May 2018	Wave Ht Low (ft)	5
132	21 May 2018	Wave Period (sec)	7
132	21 May 2018	Sea State	Confused swell
132	21 May 2018	High Tide (ft)	3.98
132	21 May 2018	High Tide Time	1639
132	21 May 2018	Low Tide (ft)	-0.23
132	21 May 2018	Low Tide Time	936
132	21 May 2018	Comments	none
	2		
132	29 May 2018	Depth (m)	10
132	29 May 2018	Arrive Time	1158
132	29 May 2018	Depart Time	1202
132	29 May 2018	Air Temp (C)	16
132	29 May 2018	Weather	Partly Cloudy
132	29 May 2018	Visibility (mi)	5
132	29 May 2018	Wind Speed (kts)	5
132	29 May 2018	Wind Dir	SW
132	29 May 2018	Water Color	Green
132	29 May 2018	Wave Ht Low (ft)	3
132	29 May 2018	Wave Period (sec)	11
132	29 May 2018	Sea State	Calm
132	29 May 2018	High Tide (ft)	3.78
132	29 May 2018	High Tide Time	1016
132	29 May 2018	Low Tide (ft)	1.61
132	29 May 2018	Low Tide Time	1525
132	29 May 2018	Comments	none
	20 May 2010	Commonito	
139	07 May 2018	Depth (m)	18
139	07 May 2018	Arrive Time	1213
139	07 May 2018	Depart Time	1216
139	07 May 2018	Air Temp (C)	14
139	07 May 2018	Weather	Partly Cloudy
139	07 May 2018	Visibility (mi)	11
139	07 May 2018	Wind Speed (kts)	9
139	07 May 2018	Wind Dir	w
139	07 May 2010 07 May 2018	Water Color	Greenish-Blue
139	07 May 2018	Wave Ht Low (ft)	4
139	07 May 2018	Wave Period (sec)	7
139	07 May 2018	Sea State	Calm
139	07 May 2018 07 May 2018	High Tide (ft)	3.76
139	07 May 2018 07 May 2018	High Tide Time	213
139	07 May 2018 07 May 2018	Low Tide (ft)	0.67
139	07 May 2018 07 May 2018	Low Tide (II)	1016
139	07 May 2018 07 May 2018	Comments	
129	01 ividy 2010	Comments	none
139	14 May 2018	Denth (m)	19
139	14 May 2018 14 May 2018	Depth (m) Arrive Time	19
139	14 May 2018 14 May 2018	Depart Time	1143
198	14 Iviay 2018		1147

Station	Date	Parameter	Value
139	14 May 2018	Air Temp (C)	16
139	14 May 2018	Weather	Partly Cloudy
139	14 May 2018	Visibility (mi)	12
139	14 May 2018	Wind Speed (kts)	11
139	14 May 2018	Wind Dir	NW
139	14 May 2018	Water Color	Green
139	14 May 2018	Wave Ht Low (ft)	4
139	14 May 2018	Wave Period (sec)	7
139	14 May 2018	Sea State	Light chop
139	14 May 2018	High Tide (ft)	4.29
139	14 May 2018	High Tide Time	917
139	14 May 2018	Low Tide (ft)	0.78
139	14 May 2018	Low Tide Time	1456
139	14 May 2018	Comments	none
100	11 may 2010	Commonito	
139	21 May 2018	Depth (m)	18
139	21 May 2018	Arrive Time	1041
139	21 May 2018 21 May 2018	Depart Time	1055
139	21 May 2018 21 May 2018	Air Temp (C)	15
139	21 May 2018 21 May 2018	Weather	Partly Cloudy
139	21 May 2018 21 May 2018	Visibility (mi)	12
139	•	• • •	10
	21 May 2018	Wind Speed (kts) Wind Dir	SW
139	21 May 2018		
139	21 May 2018	Water Color	Bluish-Green
139	21 May 2018	Wave Ht Low (ft)	4
139	21 May 2018	Wave Period (sec)	7 Operational and the second
139	21 May 2018	Sea State	Confused swell
139	21 May 2018	High Tide (ft)	3.98
139	21 May 2018	High Tide Time	1639
139	21 May 2018	Low Tide (ft)	-0.23
139	21 May 2018	Low Tide Time	936
139	21 May 2018	Comments	Dolphins
100			
139	29 May 2018	Depth (m)	20
139	29 May 2018	Arrive Time	1034
139	29 May 2018	Depart Time	1039
139	29 May 2018	Air Temp (C)	
139	29 May 2018	Weather	Partly Cloudy
139	29 May 2018	Visibility (mi)	5
139	29 May 2018	Wind Speed (kts)	4
139	29 May 2018	Wind Dir	W
139	29 May 2018	Water Color	Green
139	29 May 2018	Wave Ht Low (ft)	3
139	29 May 2018	Wave Period (sec)	11
139	29 May 2018	Sea State	Calm
139	29 May 2018	High Tide (ft)	3.78
139	29 May 2018	High Tide Time	1016
139	29 May 2018	Low Tide (ft)	1.61
139	29 May 2018	Low Tide Time	1525
139	29 May 2018	Comments	none
140	07 May 2018	Depth (m)	9
140	07 May 2018	Arrive Time	1252
140	07 May 2018	Depart Time	1256
140	07 May 2018	Air Temp (C)	14
140	01 Way 2010		ד ו

Station	Date	Parameter	Value
140	07 May 2018	Weather	Partly Cloudy
140	07 May 2018	Visibility (mi)	11
140	07 May 2018	Wind Speed (kts)	8
I40	07 May 2018	Wind Dir	SW
I40	07 May 2018	Water Color	Greenish-Brown
140	07 May 2018	Wave Ht Low (ft)	4
140	07 May 2018	Wave Period (sec)	7
140	07 May 2018	Sea State	Calm
140	07 May 2018	High Tide (ft)	3.76
140	07 May 2018	High Tide Time	213
140	07 May 2018	Low Tide (ft)	0.67
140	07 May 2018	Low Tide Time	1016
140	07 May 2018	Comments	none
140	07 May 2010	Comments	none
140	14 May 2018	Depth (m)	9
140	14 May 2018	Arrive Time	1221
	,		
I40 I40	14 May 2018	Depart Time	1226 16
	14 May 2018	Air Temp (C)	Partly Cloudy
I40 I40	14 May 2018	Weather Visibility (mi)	Partiy Cloudy 12
	14 May 2018	,,,,	
140	14 May 2018	Wind Speed (kts)	12
140	14 May 2018	Wind Dir	W
140	14 May 2018	Water Color	Green
140	14 May 2018	Wave Ht Low (ft)	4
140	14 May 2018	Wave Period (sec)	7
140	14 May 2018	Sea State	Heavy chop
140	14 May 2018	High Tide (ft)	4.29
140	14 May 2018	High Tide Time	917
140	14 May 2018	Low Tide (ft)	0.78
140	14 May 2018	Low Tide Time	1456
140	14 May 2018	Comments	Kelp debris
140	21 May 2018	Depth (m)	10
140	21 May 2018 21 May 2018	Arrive Time	1137
140	21 May 2018	Depart Time	1140
I40 I40	21 May 2018 21 May 2018		15
	-	Air Temp (C)	
140	21 May 2018	Weather	Partly Cloudy
I40	21 May 2018	Visibility (mi)	12 11
140	21 May 2018	Wind Speed (kts)	SW
I40	21 May 2018	Wind Dir Water Color	
I40	21 May 2018	Water Color	Brownish-Green
I40	21 May 2018	Wave Ht Low (ft)	4
140	21 May 2018	Wave Period (sec)	7 Confused avail
140	21 May 2018	Sea State	Confused swell
140	21 May 2018	High Tide (ft)	3.98
140	21 May 2018	High Tide Time	1639
140	21 May 2018	Low Tide (ft)	-0.23
140	21 May 2018	Low Tide Time	936
140	21 May 2018	Comments	none
140	29 May 2018	Denth (m)	11
140 140	29 May 2018 29 May 2018	Depth (m) Arrive Time	1114
140 140	29 May 2018 29 May 2018	Depart Time	1114
	-	-	
140	29 May 2018	Air Temp (C)	16 Porthy Cloudy
140	29 May 2018	Weather	Partly Cloudy

Station	Date	Parameter	Value
140	29 May 2018	Visibility (mi)	5
I40	29 May 2018	Wind Speed (kts)	8
I40	29 May 2018	Wind Dir	SW
I40	29 May 2018	Water Color	Green
140	29 May 2018	Wave Ht Low (ft)	3
I40	29 May 2018	Wave Period (sec)	11
140	29 May 2018	Sea State	Calm
140	29 May 2018	High Tide (ft)	3.78
I40	29 May 2018	High Tide Time	1016
I40	29 May 2018	Low Tide (ft)	1.61
I40	29 May 2018	Low Tide Time	1525
I40	29 May 2018	Comments	none

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

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS (%)	DO (mg/L)	Sal (ppt)	рН	Dens (ơ-t)	Chlor (µg/L)
I19	07 May 2018	1	15.58	72.98	8.0	33.66	8.1	24.8	1.06
I19	07 May 2018	2	15.59	72.90	8.0	33.66	8.1	24.8	1.06
I19	07 May 2018	3	15.49	73.07	7.9	33.67	8.1	24.8	1.08
I19	07 May 2018	4	15.16	72.84	7.8	33.68	8.0	24.9	1.27
I19	07 May 2018	5	14.94	72.97	7.6	33.67	8.0	25.0	1.43
I19	07 May 2018	6	14.60	71.50	7.2	33.69	8.0	25.0	1.54
I19	07 May 2018	7	12.85	63.34	7.1	33.75	8.0	25.4	2.24
I19	07 May 2018	8	12.48	61.11	6.7	33.68	7.9	25.5	3.31
I19	07 May 2018	9	11.46	50.34	5.5	33.69	7.9	25.7	4.25
I19	07 May 2018	10	11.34	50.37	4.8	33.66	7.8	25.7	4.58
I19	14 May 2018	1	16.21	68.32	8.7	33.65	8.2	24.7	0.71
I19	14 May 2018	2	16.21	68.67	8.7	33.65	8.2	24.7	0.74
I19	14 May 2018	3	16.08	68.68	8.7	33.65	8.2	24.7	0.85
I19	14 May 2018	4	15.71	68.46	8.8	33.67	8.2	24.8	1.13
119	14 May 2018	5	15.38	67.71	9.0	33.66	8.2	24.9	1.55
119	14 May 2018	6	15.12	68.87	9.4	33.66	8.2	24.9	2.12
119	14 May 2018	7	14.99	65.04	9.4	33.66	8.2	24.9	2.69
119	14 May 2018	8	14.32	59.25	9.2	33.68	8.2	25.1	3.66
119	14 May 2018	9	14.01	61.43	9.4	33.66	8.2	25.1	4.50
I19	14 May 2018	10	13.98	54.25	9.5	33.64	8.2	25.1	5.64
119	14 May 2010	10	13.90	54.25	9.5	55.04	0.2	23.1	5.04
I19	21 May 2018	1	16.41	57.50	9.3	33.40	8.3	24.2	4.04
I19	21 May 2018	2	16.42	59.66	9.3	33.62	8.3	24.6	4.19
119	21 May 2018	3	16.42	60.80	9.4	33.63	8.3	24.6	5.04
I19	21 May 2018	4	16.43	60.85	9.3	33.63	8.3	24.6	6.57
119	21 May 2018	5	16.34	57.66	9.0	33.64	8.3	24.6	8.90
I19	21 May 2018	6	16.26	56.09	8.8	33.63	8.2	24.6	10.09
119	21 May 2018	7	16.22	56.67	8.7	33.64	8.2	24.6	10.24
119	21 May 2018	8	16.19	57.53	8.6	33.64	8.2	24.7	9.56
119	21 May 2018	9	15.95	55.93	8.2	33.65	8.2	24.7	8.71
119	21 May 2018	10	15.67	38.31	8.0	33.62	8.2	24.8	6.73
110	21 May 2010		10.07	00.01	0.0	00.02	0.2	24.0	0.10
I19	29 May 2018	1	16.25	64.59	8.6	33.62	8.1	24.6	4.94
I19	29 May 2018	2	16.12	64.02	8.4	33.63	8.1	24.7	6.62
I19	29 May 2018	3	15.75	61.71	8.1	33.63	8.1	24.7	8.90
I19	29 May 2018	4	15.07	60.52	7.7	33.63	8.1	24.9	9.46
I19	29 May 2018	5	14.70	60.91	6.7	33.62	8.0	25.0	9.69
I19	29 May 2018	6	13.17	60.98	5.6	33.65	7.9	25.3	7.46
I19	29 May 2018	7	12.43	66.20	4.8	33.59	7.8	25.4	5.52
I19	29 May 2018	8	12.07	70.58	4.1	33.58	7.8	25.5	4.69
I19	29 May 2018	9	11.79	68.35	3.4	33.58	7.7	25.5	5.42
119	29 May 2018	10	11.63	59.57	3.1	33.59	7.7	25.6	6.00
								2010	0.00
124	07 May 2018	1	15.05	77.76	7.5	33.65	8.0	24.9	0.82
124	07 May 2018	2	15.02	79.16	7.5	33.66	8.0	24.9	0.88
124	07 May 2018	3	14.95	79.02	7.5	33.65	8.0	24.9	1.03
124	07 May 2018	4	14.23	75.78	7.5	33.67	8.0	25.1	1.32
124	07 May 2018	5	13.98	72.95	7.5	33.66	8.0	25.2	1.70
124	07 May 2018	6	13.56	73.54	6.8	33.67	8.0	25.2	1.64
124	07 May 2018	7	12.55	79.26	5.9	33.70	7.9	25.5	1.33

124 0 124 0 124 0 124 1 124 1 124 1	07 May 2018 07 May 2018 07 May 2018 07 May 2018	8 9	11.45	82.26	5.4	33.67	7.9	25.7	1 0 0
124 0 124 0 124 1 124 1 124 1 124 1	07 May 2018					00.07	1.5		1.03
124 0 124 1 124 1 124 1			11.43	82.94	5.2	33.66	7.8	25.6	0.83
124 1 124 1 124 1	07 May 2018	10	11.42	83.03	5.2	33.65	7.8	25.7	0.72
I24 1 I24 1	-	11	11.44	83.38	5.2	33.65	7.9	25.6	0.78
I24 1 I24 1									
I24 1	14 May 2018	1	16.67	72.28	9.7	33.65	8.3	24.6	0.90
	14 May 2018	2	16.68	71.02	9.7	33.63	8.3	24.5	0.92
	14 May 2018	3	16.65	73.50	9.7	33.66	8.3	24.6	0.99
	14 May 2018	4	16.31	75.95	9.7	33.68	8.3	24.7	1.14
	14 May 2018	5	15.23	79.73	10.2	33.66	8.3	24.9	1.02
	14 May 2018	6	14.97	77.14	10.0	33.65	8.3	24.9	1.23
	14 May 2018	7	14.70	74.08	9.8	33.65	8.2	25.0	1.88
	14 May 2018	8	14.38	73.89	10.1	33.65	8.2	25.1	2.67
	14 May 2018	9	14.27	75.06	10.2	33.64	8.2	25.1	2.86
	14 May 2018	10	14.26	75.58	10.2	33.64	8.2	25.1	2.75
I24 1	14 May 2018	11	14.36	75.14	10.1	33.63	8.2	25.1	2.79
			40.00	70 /7					4
	21 May 2018	1	16.22	73.47	9.4	33.64	8.3	24.7	1.75
	21 May 2018	2	16.23	73.68	9.4	33.66	8.3	24.7	1.73
	21 May 2018	3	16.23	74.33	9.4	33.66	8.3	24.7	1.87
	21 May 2018	4	16.23	73.53	9.4	33.66	8.3	24.7	2.24
	21 May 2018	5	16.19	71.06	9.2	33.66	8.3	24.7	3.16
	21 May 2018	6	16.14	67.97	8.8	33.66	8.2	24.7	4.72
	21 May 2018	7	16.06	65.69	8.3	33.65	8.2	24.7	5.48
	21 May 2018	8	15.41	63.61	7.8	33.66	8.2	24.9	4.91
	21 May 2018	9	15.10	62.74	7.7	33.64	8.1	24.9	4.05
124 2	21 May 2018	10	15.27	61.58	7.8	33.62	8.1	24.8	3.84
124 2	29 May 2018	1	16.59	66.01	9.3	33.62	8.2	24.6	3.98
	29 May 2018	2	16.40	66.19	8.9	33.63	8.2	24.6	5.57
	29 May 2018	3	15.84	63.54	8.4	33.63	8.1	24.7	9.80
	29 May 2018	4	14.37	60.57	8.1	33.67	8.1	25.1	14.04
	29 May 2018	5	13.23	67.85	7.2	33.61	8.1	25.3	10.76
	29 May 2018	6	12.79	73.88	5.8	33.59	8.0	25.3	6.48
	29 May 2018	7	12.44	79.45	4.7	33.58	7.8	25.4	3.10
	29 May 2018	8	11.95	80.12	4.1	33.60	7.8	25.5	1.83
	29 May 2018	9	11.57	76.96	3.7	33.59	7.8	25.6	1.24
	29 May 2018	10	11.55	66.56	3.4	33.59	7.7	25.6	0.97
	29 May 2018	11	11.57	56.97	3.3	33.59	7.7	25.6	0.84
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	07 May 2018	1	14.95	80.00	7.3	33.66	8.0	24.9	0.59
	07 May 2018	2	14.95	79.14	7.3	33.66	8.0	24.9	0.58
	07 May 2018	3	14.72	79.24	7.2	33.67	8.0	25.0	0.60
	07 May 2018	4	14.07	79.42	7.3	33.67	8.0	25.1	0.92
	07 May 2018	5	13.94	77.30	7.3	33.65	8.0	25.2	1.32
	07 May 2018	6	13.68	75.39	7.0	33.65	8.0	25.2	1.68
	07 May 2018	7	12.47	73.55	6.4	33.72	8.0	25.5	2.01
	07 May 2018	8	11.98	81.66	5.8	33.66	7.9	25.6	1.55
125 0	07 May 2018	9	11.61	82.26	5.6	33.66	7.9	25.6	1.10
125 1	14 May 2018	1	16.69	74.93	9.8	33.66	8.3	24.6	0.78
	14 May 2018	2	16.68	74.02	9.8	33.66	8.3	24.6	0.86
	14 May 2018	3	16.68	75.05	9.8	33.66	8.3	24.6	0.92
	14 May 2018	4	16.52	75.43	9.8	33.66	8.3	24.6	1.04
	14 May 2018	5	15.91	77.53	10.0	33.66	8.3	24.7	1.12

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS (%)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
125	14 May 2018	6	15.14	76.53	10.0	33.68	8.3	24.9	1.20
125	14 May 2018	7	14.82	78.82	10.0	33.65	8.2	25.0	1.47
125	14 May 2018	8	14.59	78.26	9.7	33.66	8.2	25.0	1.38
125	14 May 2018	9	14.58	75.23	9.6	33.65	8.2	25.0	1.31
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125	21 May 2018	1	16.21	64.63	9.6	33.52	8.3	24.4	1.19
125	21 May 2018	2	16.21	71.42	9.6	33.50	8.3	24.4	1.15
125	21 May 2018	3	16.21	75.89	9.6	33.65	8.3	24.7	1.27
125	21 May 2018	4	16.19	75.63	9.6	33.66	8.3	24.7	1.61
125	21 May 2018	5	16.18	75.98	9.6	33.66	8.3	24.7	1.92
125	21 May 2018	6	16.15	75.25	9.6	33.66	8.3	24.7	2.54
125	21 May 2018	7	16.09	72.20	9.3	33.66	8.3	24.7	3.53
125	21 May 2018	8	15.34	61.95	8.3	33.67	8.2	24.9	3.53
125	21 May 2018	9	15.35	57.26	7.9	33.64	8.2	24.8	3.13
.20	21 may 2010	Ŭ	10.00	01.20	1.0	00.01	0.2	21.0	0.10
125	29 May 2018	1	16.67	70.11	9.5	33.63	8.2	24.5	3.26
125	29 May 2018 29 May 2018	2	16.73	69.93	9.5 9.5	33.63	8.2	24.5	3.47
125	29 May 2018 29 May 2018	3	16.63	70.20	9.5 9.4	33.64	8.2	24.5	4.31
125	29 May 2018 29 May 2018	4	16.39	70.20	9.4 9.2	33.64	8.2	24.6	6.28
125	29 May 2018 29 May 2018	5	15.13	65.60	9.2 9.2	33.69	8.2	24.0	12.46
125	29 May 2018 29 May 2018	6		57.66	9.2 8.8		8.2	24.9	12.40
	-	7	13.79			33.67			
125	29 May 2018		12.87	67.40	7.3	33.63	8.1	25.4	14.21
125	29 May 2018	8	12.53	74.88	6.0	33.59	8.0	25.4	9.82
125	29 May 2018	9	12.22	76.97	4.9	33.58	7.8	25.4	5.44
100								05.0	0.00
126	07 May 2018	1	14.85	79.66	7.4	33.66	8.0	25.0	0.63
126	07 May 2018	2	14.84	80.02	7.4	33.66	8.0	25.0	0.66
126	07 May 2018	3	14.78	79.93	7.3	33.66	8.0	25.0	0.72
126	07 May 2018	4	14.17	78.58	7.3	33.69	8.0	25.1	0.96
126	07 May 2018	5	13.90	75.10	7.4	33.65	8.0	25.2	1.54
126	07 May 2018	6	13.45	71.70	7.1	33.68	8.0	25.3	1.93
126	07 May 2018	7	12.34	69.53	6.2	33.72	7.9	25.5	1.95
126	07 May 2018	8	11.33	77.08	5.5	33.69	7.9	25.7	1.66
126	07 May 2018	9	11.29	80.05	5.4	33.67	7.9	25.7	1.30
126	14 May 2018	1	16.78	61.88	9.6	33.65	8.3	24.5	1.66
126	14 May 2018	2	16.78	64.17	9.6	33.66	8.3	24.5	1.80
126	14 May 2018	3	16.70	67.49	9.6	33.66	8.3	24.6	2.06
126	14 May 2018	4	16.60	67.99	9.5	33.66	8.3	24.6	2.76
126	14 May 2018	5	16.40	69.47	9.4	33.66	8.3	24.6	3.34
126	14 May 2018	6	15.52	74.79	9.6	33.67	8.2	24.8	3.54
126	14 May 2018	7	15.17	77.75	9.7	33.66	8.2	24.9	2.94
126	14 May 2018	8	14.80	75.66	9.6	33.65	8.2	25.0	2.39
126	14 May 2018	9	14.75	70.93	9.4	33.65	8.2	25.0	2.26
126	21 May 2018	1	16.22	73.83	9.5	33.66	8.3	24.7	1.24
126	21 May 2018	2	16.22	74.70	9.5	33.66	8.3	24.7	1.26
126	21 May 2018	3	16.19	75.30	9.4	33.66	8.3	24.7	1.42
126	21 May 2018	4	16.21	75.49	9.4	33.66	8.3	24.7	1.54
126	21 May 2018	5	16.16	75.46	9.4	33.66	8.3	24.7	1.74
126	21 May 2018	6	16.13	75.81	9.4	33.66	8.3	24.7	2.05
126	21 May 2018	7	16.10	75.90	9.2	33.66	8.3	24.7	2.17
126	21 May 2018	8	15.59	74.20	8.6	33.68	8.2	24.8	3.00
126	21 May 2018	9	14.90	66.80	8.0	33.62	8.1	24.9	3.62
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Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS (%)	DO (mg/L)	Sal (ppt)	рН	Dens (ơ-t)	Chlor (µg/L)
126	29 May 2018	1	16.76	70.78	9.6	33.64	8.2	24.5	3.15
126	29 May 2018	2	16.77	71.01	9.6	33.65	8.2	24.5	3.84
126	29 May 2018	3	16.67	70.92	9.2	33.65	8.2	24.6	4.71
126	29 May 2018	4	15.97	70.37	8.9	33.66	8.2	24.7	6.04
126	29 May 2018	5	14.68	67.02	9.4	33.66	8.2	25.0	11.08
126	29 May 2018	6	13.56	57.75	8.4	33.63	8.2	25.2	14.03
126	29 May 2018	7	12.66	73.70	6.4	33.61	8.0	25.4	8.17
126	29 May 2018	8	12.21	75.76	5.8	33.59	7.9	25.5	6.50
126	29 May 2018	9	11.89	81.26	5.2	33.59	7.9	25.5	3.88
	5								
132	07 May 2018	1	15.28	73.65	8.2	33.66	8.1	24.9	1.23
132	07 May 2018	2	15.30	72.50	8.2	33.66	8.1	24.9	1.24
132	07 May 2018	3	15.30	73.74	8.2	33.66	8.1	24.9	1.21
132	07 May 2018	4	15.29	74.05	8.2	33.66	8.1	24.9	1.46
132	07 May 2018	5	15.28	74.49	8.2	33.66	8.1	24.9	1.68
132	07 May 2018	6	15.24	73.20	8.2	33.66	8.1	24.9	2.16
132	07 May 2018	7	15.20	72.76	8.2	33.66	8.1	24.9	2.67
132	07 May 2018	8	15.11	71.81	7.8	33.66	8.1	24.9	2.91
132	07 May 2018	9	13.48	56.70	6.4	33.75	8.0	25.3	2.78
132	07 May 2018 07 May 2018	10	12.96	48.65	6.1	33.55	7.8	25.3	2.50
102	07 May 2010		12.00	40.00	0.1	00.00	1.0	20.0	2.00
132	14 May 2018	1	16.30	67.97	9.8	33.65	8.3	24.6	1.12
132	14 May 2018	2	16.30	70.52	9.8	33.64	8.3	24.6	1.12
132	14 May 2018	3	16.30	72.75	9.8	33.65	8.3	24.6	1.10
132	14 May 2018	4	16.30	72.67	9.8	33.65	8.3	24.6	1.43
132	14 May 2018	5	16.29	72.55	9.8 9.8	33.65	8.3	24.6	1.43
132	14 May 2018 14 May 2018	6	16.29	72.33	9.8 9.7	33.65	8.3	24.0	1.89
132	14 May 2018 14 May 2018	7		72.26	9.7		8.3	24.6	
132	-	8	16.28		9.7 9.2	33.65	0.3 8.3	24.0	2.40
	14 May 2018	9	16.09	70.60		33.66			2.74
132	14 May 2018	10	15.34	48.90	8.6	33.65	8.2	24.9	4.75
132	14 May 2018	10	15.32	36.04	8.4	33.64	8.2	24.9	6.36
132	21 May 2018	1	16.47	63.34	8.8	33.66	8.2	24.6	1.86
132	21 May 2018	2	16.45	68.56	8.8	33.66	8.2	24.6	2.07
132	21 May 2018	3	16.45	69.38	8.8	33.66	8.2	24.6	2.34
132	21 May 2018	4	16.41	68.87	8.8	33.66	8.2	24.6	2.90
132	21 May 2018	5	16.40	68.28	8.8	33.66	8.2	24.6	3.77
132	21 May 2018	6	16.34	68.13	8.8	33.66	8.2	24.6	4.34
132	21 May 2018	7	16.26	66.90	8.9	33.66	8.2	24.7	5.02
132	21 May 2018 21 May 2018	8	16.24	64.87	8.8	33.66	8.2	24.7	5.54
132	21 May 2018 21 May 2018	9	16.24	57.86	8.7	33.66	8.2	24.7	5.84
132	21 May 2018 21 May 2018	10	16.24	38.27	8.6	33.66	8.2	24.7	5.04 5.18
152	21 May 2010	10	10.24	30.27	0.0	33.00	0.2	24.7	5.10
132	29 May 2018	1	16.72	67.66	8.9	33.63	8.2	24.5	3.45
132	29 May 2018	2	16.75	67.52	8.8	33.63	8.2	24.5	3.77
132	29 May 2018	3	16.53	67.08	8.2	33.64	8.1	24.6	4.96
132	29 May 2018	4	14.63	65.73	8.2	33.71	8.1	25.1	7.01
132	29 May 2018 29 May 2018	5	13.09	65.69	8.4	33.63	8.1	25.3	14.41
132	29 May 2018 29 May 2018	6	12.66	62.74	7.2	33.58	8.1	25.3	16.80
132	29 May 2018 29 May 2018	7	12.00	66.29	4.6	33.58 33.59	7.8	25.4 25.5	11.68
132	29 May 2018 29 May 2018	8	12.00	68.49	4.6 3.4	33.59 33.57	7.0	25.5 25.5	9.12
132	29 May 2018 29 May 2018	9	11.76	68.49 68.04	3.4 2.9	33.57 33.57	7.7	25.5 25.5	9.12 6.64
132	29 May 2018 29 May 2018	10	11.66	69.47	2.9	33.57 33.57	7.6	25.5 25.5	0.04 3.55
152	20 Way 2010		11.00	03.47	2.0	55.57	1.0	20.0	5.55
139	07 May 2018	1	14.92	78.34	7.8	33.65	8.1	24.9	0.72
100	51 may 2010	· ·	17.02	. 0.04	1.0	00.00	5.1	27.0	0.72

Station	Date	Depth (m)	Temp (°C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	рΗ	Dens (σ-t)	Chlor (µg/L)
139	07 May 2018	2	14.91	78.25	7.7	33.65	8.1	25.0	0.77
139	07 May 2018	3	14.56	78.39	7.4	33.67	8.0	25.0	0.86
139	07 May 2018	4	13.42	78.89	7.1	33.68	8.0	25.3	0.98
139	07 May 2018	5	12.64	81.02	6.9	33.64	8.0	25.4	1.06
139	07 May 2018	6	12.47	80.63	6.7	33.62	8.0	25.4	1.40
139	07 May 2018	7	12.32	80.26	6.6	33.61	8.0	25.4	1.90
139	07 May 2018	8	12.22	81.71	6.5	33.61	8.0	25.5	1.96
139	07 May 2018	9	12.04	82.94	6.4	33.62	8.0	25.5	1.81
139	07 May 2018	10	11.73	78.36	6.0	33.65	7.9	25.6	2.30
139	07 May 2018	11	11.08	81.72	5.3	33.68	7.9	25.7	2.29
139	07 May 2018	12	11.00	82.81	4.8	33.67	7.8	25.7	2.67
139	07 May 2018	13	10.96	82.94	4.6	33.67	7.8	25.8	2.51
139	07 May 2018	14	10.94	84.17	4.5	33.67	7.8	25.8	2.04
139	07 May 2018	15	10.92	83.68	4.4	33.68	7.8	25.8	2.11
139	07 May 2018	16	10.88	84.53	4.2	33.69	7.8	25.8	1.76
139	07 May 2018	17	10.88	84.98	4.1	33.69	7.8	25.8	1.48
139	07 May 2018	18	10.88	84.94	4.0	33.69	7.8	25.8	1.53
100	or may 2010		10.00	01.01	1.0	00.00	1.0	20.0	
139	14 May 2018	1	16.90	71.33	9.6	33.65	8.3	24.5	1.15
139	14 May 2018	2	16.90	71.55	9.5	33.66	8.3	24.5	1.23
139	14 May 2018	3	16.21	72.56	9.8	33.67	8.3	24.7	1.48
139	14 May 2018	4	15.68	77.35	10.0	33.63	8.3	24.8	1.43
139	14 May 2018	5	15.42	80.25	10.0	33.63	8.3	24.8	1.30
139	14 May 2018	6	15.03	81.10	10.0	33.64	8.3	24.9	1.13
139	14 May 2018	7	14.70	78.75	10.3	33.65	8.3	25.0	1.13
139	14 May 2018	8	14.70	77.20	10.3	33.64	8.3	25.0	1.41
139	14 May 2018	9	14.37	77.06	10.2	33.64	8.2	25.1	2.66
139	14 May 2018	10	14.23	77.06	10.1	33.64	8.2	25.1	2.00
139	14 May 2018 14 May 2018	10	14.22		9.9		8.2	25.1	3.28
139	14 May 2018 14 May 2018		14.10	77.01		33.64	0.2 8.2	25.1	
		12		77.03	9.9	33.64			3.38
139	14 May 2018	13	14.04	77.15	9.8	33.64	8.2	25.1	3.88
139	14 May 2018	14	13.96	76.94	9.7	33.64	8.2	25.1	4.27
139	14 May 2018	15	13.74	76.04	9.6	33.64	8.2	25.2	4.80
139	14 May 2018	16	13.44	74.00	9.5	33.64	8.2	25.2	6.15
139	14 May 2018	17	13.22	71.77	9.4	33.64	8.2	25.3	7.41
139	14 May 2018	18	13.15	69.37	9.2	33.64	8.2	25.3	8.37
139	21 May 2018	1	16.22	77.18	9.4	33.66	8.3	24.7	0.64
139	21 May 2018	2	16.22	78.21	9.4	33.66	8.3	24.7	0.75
139	21 May 2018	3	16.22	78.60	9.4	33.66	8.3	24.7	0.76
139	21 May 2018	4	16.22	78.58	9.4	33.66	8.3	24.7	0.77
139	21 May 2018	5	16.17	78.15	9.3	33.66	8.3	24.7	0.93
139	21 May 2018	6	16.15	77.93	9.4	33.66	8.3	24.7	1.28
139	21 May 2018	7	16.15	77.97	9.4	33.66	8.3	24.7	1.44
139	21 May 2018 21 May 2018	8	16.13	77.15	9.4	33.66	8.3	24.7	2.04
139	21 May 2018 21 May 2018	9	16.08	76.31	9.4	33.66	8.3	24.7	2.51
139	21 May 2018 21 May 2018	10	16.03	74.87	9.4	33.66	8.3	24.7	3.45
139	21 May 2018 21 May 2018	10	16.03	74.87	9.3 9.3	33.66	0.3 8.2	24.7	3.45 4.56
139	21 May 2018 21 May 2018	11		73.44	9.3 9.2		8.2 8.2	24.7	4.56 5.32
	-	12	15.97			33.66			
139	21 May 2018		15.87	74.23	9.2	33.66	8.2	24.7	5.21
139	21 May 2018	14	15.88	74.23	8.8	33.65	8.2	24.7	5.27
139	21 May 2018	15	14.14	73.14	7.8	33.69	8.2	25.1	4.80
139	21 May 2018	16	13.42	74.66	6.8	33.61	8.0	25.2	3.71
139	21 May 2018	17	12.51	75.47	5.7	33.64	8.0	25.4	2.86
139	21 May 2018	18	11.91	72.06	4.7	33.59	7.8	25.5	1.96

Station	Date	Depth (m)	Temp (°C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	рΗ	Dens (ơ-t)	Chlor (µg/L)
139	29 May 2018	1	16.19	78.48	8.6	33.65	8.2	24.7	1.38
139	29 May 2018	2	16.03	78.38	8.6	33.66	8.2	24.7	1.46
139	29 May 2018	3	15.87	78.90	8.7	33.65	8.2	24.7	1.63
139	29 May 2018	4	15.72	78.84	8.7	33.65	8.2	24.8	1.97
139	29 May 2018	5	15.54	78.22	8.8	33.64	8.2	24.8	2.46
139	29 May 2018	6	15.42	77.55	8.7	33.64	8.2	24.8	2.91
139	29 May 2018	7	15.27	76.90	8.7	33.64	8.2	24.9	3.56
139	29 May 2018	8	15.13	75.75	8.7	33.63	8.2	24.9	4.35
139	29 May 2018	9	15.06	74.38	8.6	33.63	8.2	24.9	5.27
139	29 May 2018	10	15.05	73.74	8.6	33.63	8.2	24.9	6.11
139	29 May 2018	11	15.03	71.90	8.5	33.63	8.2	24.9	7.16
139	29 May 2018	12	14.95	70.28	8.3	33.63	8.2	24.9	8.19
139	29 May 2018	13	14.84	70.22	8.1	33.64	8.2	25.0	8.95
139	29 May 2018	14	14.46	71.46	7.8	33.64	8.1	25.0	8.38
139	29 May 2018	15	13.77	74.18	7.4	33.63	8.1	25.2	7.51
139	29 May 2018	16	13.19	77.85	6.8	33.63	8.0	25.3	6.21
139	29 May 2018	17	11.84	83.49	5.8	33.63	8.0	25.6	3.91
139	29 May 2018	18	11.40	84.83	4.9	33.61	7.9	25.6	1.84
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140	07 May 2018	1	15.69	73.70	8.3	33.65	8.1	24.8	1.13
140	07 May 2018	2	15.72	73.64	8.1	33.65	8.1	24.8	1.13
140	07 May 2018	3	15.00	73.53	7.6	33.69	8.0	25.0	1.07
140	07 May 2018	4	13.34	71.80	7.4	33.70	8.0	25.3	0.93
140	07 May 2018	5	13.17	69.11	7.0	33.64	7.9	25.3	0.98
140	07 May 2018	6	12.46	68.26	6.5	33.65	7.9	25.5	1.40
I40	07 May 2018	7	12.19	67.10	5.8	33.65	7.9	25.5	1.62
I40	07 May 2018	8	11.43	72.38	5.0	33.67	7.8	25.7	1.84
I40	07 May 2018	9	11.41	72.76	4.8	33.66	7.8	25.7	1.74
140	07 May 2018	10	11.69	69.29	4.8	33.63	7.8	25.6	1.84
140	14 May 2018	1	16.56	69.20	9.2	33.66	8.2	24.6	1.03
140	14 May 2018	2	16.56	68.20	9.2	33.66	8.2	24.6	1.07
140	14 May 2018	3	16.38	69.00	9.2	33.66	8.3	24.6	1.23
140	14 May 2018	4	15.55	71.58	9.9	33.67	8.3	24.8	1.49
140	14 May 2018	5	15.56	74.45	9.9	33.65	8.3	24.8	1.59
140	14 May 2018	6	15.18	75.14	9.9	33.65	8.3	24.9	1.74
140	14 May 2018	7	15.02	72.89	9.5	33.66	8.2	24.9	2.21
140	14 May 2018	8	14.39	59.75	9.1	33.66	8.2	25.1	3.43
140	14 May 2018	9	14.35	59.05	9.1	33.64	8.2	25.1	4.26
140	14 May 2018	10	14.25	58.85	9.2	33.64	8.2	25.1	4.26
140	21 May 2018	1	16.47	65.89	9.3	33.65	8.3	24.6	2.32
140	21 May 2018	2	16.48	66.33	9.3	33.66	8.3	24.6	2.23
I40	21 May 2018	3	16.48	67.60	9.3	33.66	8.3	24.6	2.36
140	21 May 2018	4	16.43	67.10	9.3	33.66	8.3	24.6	3.07
140	21 May 2018	5	16.32	65.43	9.3	33.66	8.3	24.6	5.23
140	21 May 2018	6	16.26	65.85	9.2	33.66	8.3	24.7	7.02
140	21 May 2018	7	16.25	66.49	9.2	33.66	8.3	24.7	7.49
140	21 May 2018	8	16.25	66.28	9.1	33.66	8.3	24.7	7.70
140	21 May 2018	9	16.20	56.08	8.9	33.66	8.2	24.7	7.43
	-								
140	29 May 2018	1	16.16	68.99	8.7	33.63	8.2	24.7	4.16
140	29 May 2018	2	15.55	65.88	8.5	33.65	8.2	24.8	10.93
140	29 May 2018	3	14.36	53.06	7.9	33.65	8.1	25.1	16.85

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
I40	29 May 2018	4	13.94	58.63	7.3	33.61	8.1	25.1	13.98
I40	29 May 2018	5	13.50	65.45	6.6	33.61	8.0	25.2	9.59
I40	29 May 2018	6	13.04	69.93	5.7	33.60	7.9	25.3	6.53
I40	29 May 2018	7	12.22	74.05	4.7	33.62	7.8	25.5	4.53
I40	29 May 2018	8	11.72	78.02	4.3	33.60	7.8	25.6	2.79
I40	29 May 2018	9	11.64	80.72	3.9	33.59	7.8	25.6	1.85
I40	29 May 2018	10	11.56	71.92	3.3	33.59	7.7	25.6	1.28

NA = not available

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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	l12	l14	I16	I18	122	123	133	136	137	138
17 May 2018	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
18 May 2018	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

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	l12	I14	I16	I18	122	123	133	136	137	138
17 May 2018	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
18 May 2018	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

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	l12	l14	I16	I18	122	123	133	136	137	138
17 May 2018	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
18 May 2018	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

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	l14	I16	I18	122	123	133	136	137	138
17 May 2018	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
18 May 2018	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

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

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, $^{\circ}$ 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	pН
I10	15 May 2018	1140	2	<2	<2	<2	1.00	15.8	78.18	9.6	33.64	8.2
I10	15 May 2018	1140	12	<2	<2	<2	1.00	14.3	80.01	9.4	33.61	8.2
I10	15 May 2018	1140	18	4e	<2	<2	0.50	12.8	67.94	8.8	33.61	8.1
I11	15 May 2018	1126	2	<2	<2	<2	1.00	14.9	73.59	9.8	33.64	8.2
111	15 May 2018	1126	6	<2	<2	<2	1.00	14.3	73.08	10.0	33.63	8.2
111	15 May 2018	1126	11	<2	<2	<2	1.00	13.4	71.90	9.4	33.62	8.2
	10 May 2010	1120		~~	~~	~	1.00	10.4	/ 1.00	0.4	00.02	0.2
I12	17 May 2018	1052	2	<2	<2	<2	1.00	15.8	76.71	9.4	33.65	8.2
112	17 May 2018	1052	18	<20	<2	<2	0.10	11.5	68.63	5.2	33.58	7.9
112	17 May 2018	1052	27	<2	<2	<2	1.00	11.2	76.78	4.6	33.60	7.8
112	17 Way 2010	1052	21	~2	~~	~2	1.00	11.2	10.10	4.0	33.00	7.0
I13	17 May 2018	1139	2	<2	<2	<2	1.00	16.1	80.19	9.4	33.64	8.3
I13	17 May 2018 17 May 2018	1139	18	<2	<2	<2	1.00	11.8	75.19	9.4 6.0	33.63	8.0
I13	17 May 2018 17 May 2018		37	<2	<2	<2 <2						8.0 7.8
113	17 May 2010	1139	57	<2	<2	<2	1.00	10.8	84.11	4.1	33.68	1.0
14.4	17 May 2010	1000	2	~ 2	-2	~2	1 00	10.0	70.04	0.5	22.00	0.0
114	17 May 2018	1209	2	<2	<2	<2	1.00	16.0	78.81	9.5	33.66	8.3
114	17 May 2018	1209	18	<2	<2	<2	1.00	11.4	65.86	5.5	33.57	7.9
I14	17 May 2018	1209	27	<2	<2	<2	1.00	11.2	74.62	4.6	33.61	7.8
116	17 May 2018	1112	2	<2	<2	<2	1.00	16.1	79.61	9.4	33.65	8.3
I16	17 May 2018	1112	18	8e	<2	<2	0.25	11.4	69.29	5.2	33.58	7.9
I16	17 May 2018	1112	27	<2	2e	<2	1.00	11.2	76.26	4.6	33.61	7.8
I18	17 May 2018	1027	2	<2	<2	<2	1.00	15.8	75.46	9.4	33.66	8.2
I18	17 May 2018	1027	12	4e	<2	<2	0.50	13.4	68.64	9.0	33.58	8.2
I18	17 May 2018	1027	18	2e	<2	<2	1.00	11.6	61.11	5.5	33.58	7.9
120	17 May 2018	904	2	<2	<2	<2	1.00	16.0	80.09	9.3	33.63	8.2
120	17 May 2018	904	18	<2	<2	<2	1.00	11.0	88.67	4.9	33.61	7.8
120	17 May 2018	904	55	<2	<2	<2	1.00	10.6	88.67	3.9	33.70	7.7
121	17 May 2018	927	2	<2	<2	<2	1.00	15.8	80.39	9.4	33.64	8.3
121	17 May 2018	927	18	<2	<2	<2	1.00	11.9	71.58	6.2	33.63	8.0
121	17 May 2018	927	37	<2	<2	<2	1.00	10.7	85.94	4.2	33.69	7.8
122	17 May 2018	958	2	<2	<2	<2	1.00	15.8	76.20	9.4	33.66	8.2
122	17 May 2018	958	18	4e	<2	<2	0.50	11.5	59.98	5.4	33.59	7.9
122	17 May 2018	958	27	<20	<2	<2	0.10	11.3	70.84	4.8	33.60	7.8
123	17 May 2018	1010	2	<2	<2	<2	1.00	15.8	73.68	9.3	33.66	8.2
123	17 May 2018	1010	12	4e	<2	<2	0.50	13.8	72.83	9.3	33.61	8.2
123	17 May 2018	1010	18	<2	<2	<2	1.00	11.8	58.20	5.8	33.59	7.9
13	15 May 2018	1025	2	<2	<2	<2	1.00	15.6	82.38	9.5	33.63	8.3
13	15 May 2018	1025	18	<2	<2	<2	1.00	12.2	60.76	8.0	33.55	8.1
13 13	15 May 2018	1025	27	<2	<2	<2	1.00	11.9	57.50	6.1	33.58	7.9
10	13 May 2010	1025	21	<u></u>	<u></u> ~2	<u></u>	1.00	11.9	07.00	0.1	55.56	1.9

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pН
130	18 May 2018	940	2	<2	<2	<2	1.00	15.8	70.35	9.4	33.64	8.3
130	18 May 2018	940	18	<20	<2	<2	0.10	11.8	65.98	6.0	33.58	7.9
130	18 May 2018	940	27	<2	<2	<2	1.00	11.3	73.42	4.4	33.61	7.8
133	18 May 2018	834	2	<2	<2	<2	1.00	15.4	76.41	9.2	33.65	8.2
133	18 May 2018	834	18	<20	<2	<2	0.10	12.8	62.25	7.8	33.63	8.1
133	18 May 2018	834	27	<20	<2	<2	0.10	11.3	74.10	4.8	33.62	7.8
136	18 May 2018	1031	2	<2	<2	<2	1.00	16.1	69.14	9.2	33.67	8.2
136	18 May 2018	1031	6	<2	<2	<2	1.00	15.3	71.24	8.8	33.68	8.2
136	18 May 2018	1031	11	<2	<2	<2	1.00	13.0	57.38	8.0	33.61	8.1
137	18 May 2018	1131	2	<2	<2	<2	1.00	15.4	69.74	8.8	33.68	8.2
137	18 May 2018	1131	6	2e	<2	<2	1.00	14.2	70.48	8.3	33.66	8.2
137	18 May 2018	1131	11		<2	<2		12.8	65.60		33.60	8.1
137	10 May 2010	1131	11	2e	<2	<2	1.00	12.0	05.00	7.9	33.01	0.1
138	18 May 2018	1111	2	2e	<2	<2	1.00	15.6	73.11	9.3	33.67	8.2
138	18 May 2018	1111	6	<2	<2	<2	1.00	15.6	73.56	9.2	33.67	8.2
138	18 May 2018	1111	11	<20	<2	<2	0.10	13.2	68.06	8.4	33.62	8.1
15	15 May 2018	1049	2	4e	<2	<2	0.50	14.7	74.40	7.7	33.62	8.2
15	15 May 2018	1049	6	28e	<2	<2	0.07	13.7	73.49	9.8	33.68	8.2
15	15 May 2018	1049	11	40e	<2	4e	0.05	13.4	67.77	9.5	33.63	8.2
17	15 May 2018	906	2	<2	<2	<2	1.00	15.7	75.59	9.6	33.65	8.2
17	15 May 2018	906	18	<2	<2	<2	1.00	11.9	72.30	6.5	33.63	8.0
17	15 May 2018	906	52	<2	<2	<2	1.00	10.7	85.88	4.2	33.69	7.8
10	45 May 0040	4000	2	-0	-0	-0	4.00	45.0	00.00		00.00	8.2
18	15 May 2018	1208		<2	<2	<2	1.00	15.8	83.63	9.3	33.63	
18	15 May 2018	1208	18	<2	<2	<2	1.00	11.6	63.57	6.1	33.58	8.0
18	15 May 2018	1208	37	<2	<2	<2	1.00	11.2	75.84	4.8	33.61	7.8
19	15 May 2018	1156	2	<2	<2	<2	1.00	16.2	78.61	9.5	33.65	8.3
19	15 May 2018	1156	18	2e	<2	<2	1.00	12.1	53.59	7.7	33.59	8.1
19	15 May 2018	1156	27	2e	<2	<2	1.00	11.9	61.76	6.3	33.60	8.0

ns = not sampled ND = no data

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

1 1 1 1	5 May 2018		
11 1		Depth (m)	63
	5 May 2018	Arrive Time	928
	5 May 2018	Depart Time	935
11 15	5 May 2018	Air Temp (C)	16
1 1	5 May 2018	Weather	Partly Cloudy
11 15	5 May 2018	Visibility (mi)	5
11 1	5 May 2018	Wind Speed (kts)	5
I1 19	5 May 2018	Wind Dir	SW
11 1	5 May 2018	Water Color	Green
1 1	5 May 2018	Wave Ht Low (ft)	3
1 1	5 May 2018	Wave Period (sec)	9
1 1	5 May 2018	Sea State	Calm
11 1	5 May 2018	High Tide (ft)	4.2
11 1	5 May 2018	High Tide Time	1004
	5 May 2018	Low Tide (ft)	1.02
11 1	5 May 2018	Low Tide Time	1531
11 1	5 May 2018	Comments	none
	5 May 2018	Depth (m)	21
	5 May 2018	Arrive Time	1140
	5 May 2018	Depart Time	1144
	5 May 2018	Air Temp (C)	16
	5 May 2018	Weather	Clear
	5 May 2018	Visibility (mi)	8
	5 May 2018	Wind Speed (kts)	9
	5 May 2018	Wind Dir	SW
	5 May 2018	Water Color	Green
	5 May 2018	Wave Ht Low (ft)	3
	5 May 2018	Wave Period (sec)	9
	5 May 2018	Sea State	Light chop
	5 May 2018	High Tide (ft)	4.2
	5 May 2018	High Tide Time	1004
	5 May 2018	Low Tide (ft)	1.02
	5 May 2018	Low Tide Time	1531
110 1	5 May 2018	Comments	none
111 1	5 May 2018	Depth (m)	14
	5 May 2018	Arrive Time	1126
	5 May 2018	Depart Time	1130
	5 May 2018	Air Temp (C)	16
	5 May 2018	Weather	Partly Cloudy
	5 May 2018	Visibility (mi)	5
	5 May 2018	Wind Speed (kts)	10
	5 May 2018	Wind Dir	SW
	5 May 2018	Water Color	Green
	5 May 2018	Wave Ht Low (ft)	3
	5 May 2018	Wave Period (sec)	9
	5 May 2018	Sea State	Calm
	5 May 2018	High Tide (ft)	4.2
	5 May 2018	High Tide Time	1004
	5 May 2018	Low Tide (ft)	1.02

Station	Date	Parameter	Value
I11	15 May 2018	Low Tide Time	1531
111	15 May 2018	Comments	none
	,		
l12	17 May 2018	Depth (m)	29
112	17 May 2018	Arrive Time	1052
112	17 May 2018	Depart Time	1056
112	17 May 2018	Air Temp (C)	16
112	17 May 2018	Weather	Partly Cloudy
112	17 May 2018	Visibility (mi)	12
112	17 May 2018	Wind Speed (kts)	9
112	17 May 2018	Wind Dir	SE
112	17 May 2018	Water Color	Green
112	17 May 2018	Wave Ht Low (ft)	4
112	17 May 2018	Wave Period (sec)	9
112	17 May 2018	Sea State	S Confused swell
112	17 May 2018		3.81
112	•	High Tide (ft)	1149
112	17 May 2018	High Tide Time	
112	17 May 2018	Low Tide (ft)	-1.17
	17 May 2018	Low Tide Time	529
112	17 May 2018	Comments	none
14.0	17 Mar 0040		
113	17 May 2018	Depth (m)	41
I13	17 May 2018	Arrive Time	1139
113	17 May 2018	Depart Time	1144
113	17 May 2018	Air Temp (C)	16
113	17 May 2018	Weather	Partly Cloudy
113	17 May 2018	Visibility (mi)	12
113	17 May 2018	Wind Speed (kts)	8
I13	17 May 2018	Wind Dir	SW
113	17 May 2018	Water Color	Green
113	17 May 2018	Wave Ht Low (ft)	5
113	17 May 2018	Wave Period (sec)	9
113	17 May 2018	Sea State	Confused swell
113	17 May 2018	High Tide (ft)	3.81
113	17 May 2018	High Tide Time	1149
113	17 May 2018	Low Tide (ft)	-1.17
113	17 May 2018	Low Tide Time	529
113	17 May 2018	Comments	none
114	17 May 2018	Depth (m)	29
114	17 May 2018	Arrive Time	1209
114	17 May 2018	Depart Time	1215
114	17 May 2018	Air Temp (C)	16
114	17 May 2018	Weather	Partly Cloudy
114	17 May 2018	Visibility (mi)	10
114	17 May 2018	Wind Speed (kts)	8
114	17 May 2018	Wind Dir	SW
114	17 May 2018	Water Color	Green
114	17 May 2018	Wave Ht Low (ft)	5
114	17 May 2018	Wave Period (sec)	6
114	17 May 2018	Sea State	Confused swell
114	17 May 2018	High Tide (ft)	3.81
114	17 May 2018	High Tide Time	1149
114	17 May 2018	Low Tide (ft)	-1.17
l14	17 May 2018	Low Tide Time	529

Station	Date	Parameter	Value
l14	17 May 2018	Comments	none
I15	17 May 2018	Depth (m)	34
I15	17 May 2018	Arrive Time	1122
I15	17 May 2018	Depart Time	1128
115	17 May 2018	Air Temp (C)	16
115	17 May 2018	Weather	Partly Cloudy
I15	17 May 2018	Visibility (mi)	5
115	17 May 2018	Wind Speed (kts)	5
I15	17 May 2018	Wind Dir	S
I15	17 May 2018	Water Color	Brownish-Green
I15	17 May 2018	Wave Ht Low (ft)	3
I15	17 May 2018	Wave Period (sec)	9
I15	17 May 2018	Sea State	Calm
I15	17 May 2018	High Tide (ft)	3.81
I15	17 May 2018	High Tide Time	1149
I15	17 May 2018	Low Tide (ft)	-1.17
I15	17 May 2018	Low Tide Time	529
I15	17 May 2018	Comments	none
I16	17 May 2018	Depth (m)	29
I16	17 May 2018	Arrive Time	1112
I16	17 May 2018	Depart Time	1116
I16	17 May 2018	Air Temp (C)	16
I16	17 May 2018	Weather	Partly Cloudy
I16	17 May 2018	Visibility (mi)	5
I16	17 May 2018	Wind Speed (kts)	8
116	17 May 2018	Wind Dir	SE
116	17 May 2018	Water Color	Brownish-Green
116	17 May 2018	Wave Ht Low (ft)	3
116	17 May 2018	Wave Period (sec)	9
l16	17 May 2018	Sea State	Calm
I16	17 May 2018	High Tide (ft)	3.81
I16	17 May 2018	High Tide Time	1149
I16	17 May 2018	Low Tide (ft)	-1.17
I16	17 May 2018	Low Tide Time	529
I16	17 May 2018	Comments	none
I17	17 May 2018	Depth (m)	25
117	17 May 2018	Arrive Time	1042
117	17 May 2018	Depart Time	1047
117	17 May 2018	Air Temp (C)	16 5 - # - 01 - 1
117	17 May 2018	Weather	Partly Cloudy
I17	17 May 2018	Visibility (mi)	12
I17	17 May 2018	Wind Speed (kts)	6
I17	17 May 2018	Wind Dir	S
I17	17 May 2018	Water Color	Green
117	17 May 2018	Wave Ht Low (ft)	4
I17	17 May 2018	Wave Period (sec)	9
117	17 May 2018	Sea State	Confused swell
117	17 May 2018	High Tide (ft)	3.81
117	17 May 2018	High Tide Time	1149
117	17 May 2018	Low Tide (ft)	-1.17
117	17 May 2018	Low Tide Time	529
I17	17 May 2018	Comments	none

Station	Date	Parameter	Value
118	17 May 2018	Depth (m)	22
I18	17 May 2018	Arrive Time	1027
118	17 May 2018	Depart Time	1031
l18	17 May 2018	Air Temp (C)	16
l18	17 May 2018	Weather	Partly Cloudy
l18	17 May 2018	Visibility (mi)	12
118	17 May 2018	Wind Speed (kts)	5
118	17 May 2018	Wind Dir	S
l18	17 May 2018	Water Color	Green
l18	17 May 2018	Wave Ht Low (ft)	4
l18	17 May 2018	Wave Period (sec)	9
l18	17 May 2018	Sea State	Confused swell
l18	17 May 2018	High Tide (ft)	3.81
l18	17 May 2018	High Tide Time	1149
l18	17 May 2018	Low Tide (ft)	-1.17
l18	17 May 2018	Low Tide Time	529
l18	17 May 2018	Comments	none
	-		
12	15 May 2018	Depth (m)	34
12	15 May 2018	Arrive Time	957
12	15 May 2018	Depart Time	1015
12	15 May 2018	Air Temp (C)	16
12	15 May 2018	Weather	Partly Cloudy
12	15 May 2018	Visibility (mi)	5
12	15 May 2018	Wind Speed (kts)	9
12	15 May 2018	Wind Dir	W
12	15 May 2018	Water Color	Green
12	15 May 2018	Wave Ht Low (ft)	3
12	15 May 2018	Wave Period (sec)	9
12	15 May 2018	Sea State	Calm
12	15 May 2018	High Tide (ft)	4.2
12	15 May 2018	High Tide Time	1004
12	15 May 2018	Low Tide (ft)	1.02
12	15 May 2018	Low Tide Time	1531
12	15 May 2018	Comments	none
	10 may 2010	Commente	
120	17 May 2018	Depth (m)	56
120	17 May 2018	Arrive Time	904
120	17 May 2018	Depart Time	910
120	17 May 2018	Air Temp (C)	16
120	17 May 2018	Weather	Partly Cloudy
120	17 May 2018	Visibility (mi)	12
120	17 May 2018	Wind Speed (kts)	8
120	17 May 2018 17 May 2018	Wind Dir	o SW
120	17 May 2018 17 May 2018	Water Color	Green
120	-		4
	17 May 2018	Wave Ht Low (ft)	
120	17 May 2018	Wave Period (sec)	9 Confluent swell
120	17 May 2018	Sea State	Confused swell
120	17 May 2018	High Tide (ft)	3.81
120	17 May 2018	High Tide Time	1149
120	17 May 2018	Low Tide (ft)	-1.17
120	17 May 2018	Low Tide Time	529
120	17 May 2018	Comments	none

Station	Date	Parameter	Value
l21	17 May 2018	Depth (m)	41
121	17 May 2018	Arrive Time	927
121	17 May 2018	Depart Time	933
121	17 May 2018	Air Temp (C)	16
121	17 May 2018	Weather	Partly Cloudy
121	17 May 2018	Visibility (mi)	12
121	17 May 2018	Wind Speed (kts)	10
121	17 May 2018	Wind Dir	S
121	17 May 2018	Water Color	Green
121	17 May 2018	Wave Ht Low (ft)	4
121	17 May 2018	Wave Period (sec)	9
121	17 May 2018	Sea State	Confused swell
121	17 May 2018	High Tide (ft)	3.81
121	17 May 2018	High Tide Time	1149
121	17 May 2018	Low Tide (ft)	-1.17
121	17 May 2018	Low Tide Time	529
121	17 May 2018	Comments	none
121	17 Way 2010	Comments	lione
122	17 May 2018	Depth (m)	29
122	17 May 2018 17 May 2018	Arrive Time	29 958
122	17 May 2018	Depart Time	1004
	-		16
122	17 May 2018	Air Temp (C)	
122	17 May 2018	Weather	Partly Cloudy
122	17 May 2018	Visibility (mi)	12
122	17 May 2018	Wind Speed (kts)	9
122	17 May 2018	Wind Dir	SW
122	17 May 2018	Water Color	Green
122	17 May 2018	Wave Ht Low (ft)	4
122	17 May 2018	Wave Period (sec)	9
122	17 May 2018	Sea State	Confused swell
122	17 May 2018	High Tide (ft)	3.81
122	17 May 2018	High Tide Time	1149
122	17 May 2018	Low Tide (ft)	-1.17
122	17 May 2018	Low Tide Time	529
122	17 May 2018	Comments	none
123	17 May 2018	Depth (m)	20
123	17 May 2018	Arrive Time	1010
123	17 May 2018	Depart Time	1021
123	17 May 2018	Air Temp (C)	16
123	17 May 2018	Weather	Partly Cloudy
123	17 May 2018	Visibility (mi)	12
123	17 May 2018	Wind Speed (kts)	6
123	17 May 2018	Wind Dir	SE
123	17 May 2018	Water Color	Green
123	17 May 2018	Wave Ht Low (ft)	4
123	17 May 2018	Wave Period (sec)	9
123	17 May 2018	Sea State	Confused swell
123	17 May 2018	High Tide (ft)	3.81
123	17 May 2018	High Tide Time	1149
123	17 May 2018	Low Tide (ft)	-1.17
123	17 May 2018	Low Tide Time	529
123	17 May 2018	Comments	Boats
127	17 May 2018	Depth (m)	29

127 17 May 2018 Arrive Time 945 127 17 May 2018 Depart Time 951 127 17 May 2018 Air Temp (C) 16 127 17 May 2018 Weather Partly Cloudy 127 17 May 2018 Visibility (mi) 12 127 17 May 2018 Wind Speed (kts) 5 127 17 May 2018 Wind Dir SE 127 17 May 2018 Water Color Green 127 17 May 2018 Wave Ht Low (ft) 4 127 17 May 2018 Wave Period (sec) 9 127 17 May 2018 Sea State Confused swell	
127 17 May 2018 Air Temp (C) 16 127 17 May 2018 Weather Partly Cloudy 127 17 May 2018 Visibility (mi) 12 127 17 May 2018 Wind Speed (kts) 5 127 17 May 2018 Wind Dir SE 127 17 May 2018 Water Color Green 127 17 May 2018 Wave Ht Low (ft) 4 127 17 May 2018 Wave Period (sec) 9 127 17 May 2018 Sea State Confused swell	
12717 May 2018WeatherPartly Cloudy12717 May 2018Visibility (mi)1212717 May 2018Wind Speed (kts)512717 May 2018Wind DirSE12717 May 2018Water ColorGreen12717 May 2018Wave Ht Low (ft)412717 May 2018Wave Period (sec)912717 May 2018Sea StateConfused swell	
127 17 May 2018 Visibility (mi) 12 127 17 May 2018 Wind Speed (kts) 5 127 17 May 2018 Wind Dir SE 127 17 May 2018 Water Color Green 127 17 May 2018 Wave Ht Low (ft) 4 127 17 May 2018 Wave Period (sec) 9 127 17 May 2018 Sea State Confused swell	
127 17 May 2018 Wind Speed (kts) 5 127 17 May 2018 Wind Dir SE 127 17 May 2018 Water Color Green 127 17 May 2018 Wave Ht Low (ft) 4 127 17 May 2018 Wave Period (sec) 9 127 17 May 2018 Sea State Confused swell	
I2717 May 2018Wind DirSEI2717 May 2018Water ColorGreenI2717 May 2018Wave Ht Low (ft)4I2717 May 2018Wave Period (sec)9I2717 May 2018Sea StateConfused swell	
I2717 May 2018Water ColorGreenI2717 May 2018Wave Ht Low (ft)4I2717 May 2018Wave Period (sec)9I2717 May 2018Sea StateConfused swell	
I2717 May 2018Water ColorGreenI2717 May 2018Wave Ht Low (ft)4I2717 May 2018Wave Period (sec)9I2717 May 2018Sea StateConfused swell	
I27 17 May 2018 Wave Ht Low (ft) 4 I27 17 May 2018 Wave Period (sec) 9 I27 17 May 2018 Sea State Confused swell	
I2717 May 2018Wave Period (sec)9I2717 May 2018Sea StateConfused swell	
I27 17 May 2018 Sea State Confused swell	
I27 17 May 2018 High Tide (ft) 3.81	
127 17 May 2018 High Tide Time 1149	
127 17 May 2018 Low Tide (ft) -1.17	
127 17 May 2018 Low Tide Time 529	
I27 17 May 2018 Comments none	
I28 18 May 2018 Depth (m) 56	
128 18 May 2018 Arrive Time 901	
128 18 May 2018 Depart Time 906	
128 18 May 2018 Air Temp (C) 15	
128 18 May 2018 Weather Overcast	
128 18 May 2018 Water Color Green 128 18 May 2018 Ways bit Law (ft) 4	
I28 18 May 2018 Wave Ht Low (ft) 4 I29 18 May 2019 Wave Daried (acc) 12	
128 18 May 2018 Wave Period (sec) 13 100 40 May 2040 0 as 0 total 13	
I28 18 May 2018 Sea State Light chop I20 I20 I20 I20 I20	
I28 18 May 2018 High Tide (ft) 3.62 I20 40 May 2010 High Tide Time 50	
128 18 May 2018 High Tide Time 52	
128 18 May 2018 Low Tide (ft) -1.03	
I28 18 May 2018 Low Tide Time 622 I28 18 May 2018 0 0 0	
I28 18 May 2018 Comments none	
I29 18 May 2018 Depth (m) 37	
129 18 May 2018 Arrive Time 920	
129 18 May 2018 Depart Time 925	
129 18 May 2018 Air Temp (C) 15	
I29 18 May 2018 Weather Overcast	
I29 18 May 2018 Visibility (mi) 7	
I29 18 May 2018 Wind Speed (kts) 4	
I29 18 May 2018 Wind Dic W	
I29 18 May 2018 Water Color Green	
I29 18 May 2018 Water Color Green I29 18 May 2018 Wave Ht Low (ft) 4	
123 10 May 2010 Wave fit Low (it) 4 129 18 May 2018 Wave Period (sec) 13	
12918 May 2018Sea StateLight chop	
I29 18 May 2018 Sea State Light Chip I29 18 May 2018 High Tide (ft) 3.62	
I29 18 May 2018 High Tide Time 52	
129 18 May 2018 High ride fille 52 129 18 May 2018 Low Tide (ft) -1.03	
I29 18 May 2018 Low Tide Time 622 I20 18 May 2018 Comments none	
I29 18 May 2018 Comments none	
I3 15 May 2018 Depth (m) 28	
13 15 May 2018 Arrive Time 1025	

Station	Date	Parameter	Value
13	15 May 2018	Depart Time	1029
13	15 May 2018	Air Temp (C)	16
13	15 May 2018	Weather	Partly Cloudy
13	15 May 2018	Visibility (mi)	5
13	15 May 2018	Wind Speed (kts)	10
13	15 May 2018	Wind Dir	SW
13	15 May 2018	Water Color	Green
13	15 May 2018	Wave Ht Low (ft)	3
13	15 May 2018	Wave Period (sec)	9
13	15 May 2018	Sea State	Calm
13	15 May 2018	High Tide (ft)	4.2
13	15 May 2018	High Tide Time	1004
13	15 May 2018	Low Tide (ft)	1.02
13	15 May 2018	Low Tide Time	1531
13	15 May 2018	Comments	none
		000000	
130	18 May 2018	Depth (m)	27
130	18 May 2018	Arrive Time	940
130	18 May 2018	Depart Time	950
130	18 May 2018	Air Temp (C)	16
130	18 May 2018	Weather	Overcast
130	18 May 2018	Visibility (mi)	7
130	18 May 2018	Wind Speed (kts)	4
130	18 May 2018	Wind Dir	W
130	18 May 2018	Water Color	Green
130	18 May 2018	Wave Ht Low (ft)	4
130	18 May 2018	Wave Period (sec)	13
130	18 May 2018	Sea State	Light chop
130	18 May 2018	High Tide (ft)	3.62
130	18 May 2018	High Tide Time	52
130	18 May 2018	Low Tide (ft)	-1.03
130	18 May 2018	Low Tide Time	622
130	18 May 2018	Comments	
130	10 May 2010	Comments	none
131	18 May 2018	Depth (m)	20
131	18 May 2018	Arrive Time	959
131	18 May 2018	Depart Time	1003
131	18 May 2018	Air Temp (C)	16
131	18 May 2018	Weather	Overcast
131	18 May 2018	Visibility (mi)	7
131	18 May 2018	Wind Speed (kts)	5
131	18 May 2018	Wind Speed (kts) Wind Dir	5 SW
131	18 May 2018 18 May 2018	Wind Dir Water Color	
131	18 May 2018 18 May 2018		Green 4
	18 May 2018 18 May 2018	Wave Ht Low (ft)	
131		Wave Period (sec)	13 Light shap
131	18 May 2018	Sea State	Light chop
131	18 May 2018	High Tide (ft)	3.62
131	18 May 2018	High Tide Time	52
131	18 May 2018	Low Tide (ft)	-1.03
131	18 May 2018	Low Tide Time	622
131	18 May 2018	Comments	none
100	10 May 0010		
133	18 May 2018	Depth (m)	29
133	18 May 2018	Arrive Time	834
133	18 May 2018	Depart Time	841

Station	Date	Parameter	Value
133	18 May 2018	Air Temp (C)	15
133	18 May 2018	Weather	Overcast
133	18 May 2018	Visibility (mi)	7
133	18 May 2018	Wind Speed (kts)	6
133	18 May 2018	Wind Dir	W
133	18 May 2018	Water Color	Green
133	18 May 2018	Wave Ht Low (ft)	4
133	18 May 2018	Wave Period (sec)	13
133	18 May 2018	Sea State	Light chop
133	18 May 2018	High Tide (ft)	3.62
133	18 May 2018	High Tide Time	52
133	18 May 2018	Low Tide (ft)	-1.03
133	18 May 2018	Low Tide Time	622
133	18 May 2018	Comments	none
134	18 May 2018	Depth (m)	19
134	18 May 2018	Arrive Time	819
134	18 May 2018	Depart Time	824
134	18 May 2018	Air Temp (C)	15
134	18 May 2018	Weather	Overcast
134	18 May 2018	Visibility (mi)	7
134	18 May 2018	Wind Speed (kts)	6
134	18 May 2018	Wind Dir	Ŵ
134	18 May 2018	Water Color	Green
134	18 May 2018	Wave Ht Low (ft)	4
134	18 May 2018	Wave Period (sec)	13
134	18 May 2018	Sea State	Light chop
134	18 May 2018	High Tide (ft)	3.62
134	18 May 2018	High Tide Time	52
134	18 May 2018	Low Tide (ft)	-1.03
134	18 May 2018	Low Tide Time	622
134	18 May 2018	Comments	none
104	10 May 2010	Commenta	lione
135	18 May 2018	Depth (m)	20
135	18 May 2018	Arrive Time	1047
135	18 May 2018	Depart Time	1052
135	18 May 2018	Air Temp (C)	15
135	18 May 2018	Weather	Overcast
135	18 May 2018	Visibility (mi)	7
135	18 May 2018	Wind Speed (kts)	5
135	18 May 2018	Wind Dir	SW
135	18 May 2018	Water Color	Green
135	18 May 2018	Wave Ht Low (ft)	4
135	18 May 2018	Wave Period (sec)	13
135	18 May 2018	Sea State	Light chop
135	18 May 2018	High Tide (ft)	3.62
135	18 May 2018	High Tide Time	52
135	18 May 2018	Low Tide (ft)	-1.03
135	18 May 2018	Low Tide Time	622
135	18 May 2018	Comments	none
100	10 May 2010	Sommento	
136	18 May 2018	Depth (m)	12
136	18 May 2018	Arrive Time	1031
136	18 May 2018	Depart Time	1036
136	18 May 2018	Air Temp (C)	15
100	10 100 2010	, ionip (0)	

Station	Date	Parameter	Value
136	18 May 2018	Weather	Overcast
136	18 May 2018	Visibility (mi)	7
136	18 May 2018	Wind Speed (kts)	6
136	18 May 2018	Wind Dir	SW
136	18 May 2018	Water Color	Green
136	18 May 2018	Wave Ht Low (ft)	4
136	18 May 2018	Wave Period (sec)	13
136	18 May 2018	Sea State	Light chop
136	18 May 2018	High Tide (ft)	3.62
136	18 May 2018	High Tide Time	52
136	18 May 2018	Low Tide (ft)	-1.03
136	18 May 2018	Low Tide Time	622
136	18 May 2018	Comments	none
	, ,		
137	18 May 2018	Depth (m)	13
137	18 May 2018	Arrive Time	1131
137	18 May 2018	Depart Time	1136
137	18 May 2018	Air Temp (C)	16
137	18 May 2018	Weather	Overcast
137	18 May 2018	Visibility (mi)	7
137	18 May 2018	Wind Speed (kts)	5
137	18 May 2018	Wind Dir	SW
137	18 May 2018	Water Color	Green
137	18 May 2018	Wave Ht Low (ft)	4
137	-	Wave Period (sec)	13
137	18 May 2018	Sea State	
137	18 May 2018 18 May 2018	High Tide (ft)	Light chop 3.62
137	-		52
137	18 May 2018	High Tide Time Low Tide (ft)	-1.03
137	18 May 2018	Low Tide (II)	622
137	18 May 2018	Comments	Station resampled due to CTD sensor issues
137	18 May 2018	Comments	Station resampled due to CTD sensor issues
138	18 May 2018	Depth (m)	13
138	18 May 2018	Arrive Time	1111
138	18 May 2018	Depart Time	1117
138	18 May 2018	Air Temp (C)	15
138	18 May 2018	Weather	Overcast
138	18 May 2018	Visibility (mi)	7
138	18 May 2018	Wind Speed (kts)	7
138	18 May 2018	Wind Dir	SW
138	18 May 2018	Water Color	Green
138	18 May 2018	Wave Ht Low (ft)	4
138	18 May 2018	Wave Period (sec)	13
138	18 May 2018	Sea State	Light chop
138	18 May 2018	High Tide (ft)	3.62
138	18 May 2018	High Tide Time	52
138	18 May 2018	Low Tide (ft)	-1.03
138	18 May 2018	Low Tide (II)	622
138	18 May 2018	Comments	none
130	10 Way 2010	Commenta	none
14	15 May 2018	Depth (m)	20
14	15 May 2018	Arrive Time	1040
14	15 May 2018	Depart Time	1045
14	15 May 2018	Air Temp (C)	16
14	15 May 2018	Weather	Partly Cloudy
••			· · ,,

Station	Date	Parameter	Value
14	15 May 2018	Visibility (mi)	5
14	15 May 2018	Wind Speed (kts)	8
14	15 May 2018	Wind Dir	SW
14	15 May 2018	Water Color	Green
14	15 May 2018	Wave Ht Low (ft)	3
14	15 May 2018	Wave Period (sec)	9
14	15 May 2018	Sea State	Calm
14	15 May 2018	High Tide (ft)	4.2
14	15 May 2018	High Tide Time	1004
14	15 May 2018	Low Tide (ft)	1.02
14	15 May 2018	Low Tide Time	1531
14	15 May 2018	Comments	none
14	15 May 2010	Comments	lione
15	15 May 2019	Donth (m)	13
15	15 May 2018	Depth (m)	
15	15 May 2018	Arrive Time	1049
15	15 May 2018	Depart Time	1054
15	15 May 2018	Air Temp (C)	
15	15 May 2018	Weather	Partly Cloudy
15	15 May 2018	Visibility (mi)	5
15	15 May 2018	Wind Speed (kts)	14
15	15 May 2018	Wind Dir	W
15	15 May 2018	Water Color	Green
15	15 May 2018	Wave Ht Low (ft)	3
15	15 May 2018	Wave Period (sec)	9
15	15 May 2018	Sea State	Calm
15	15 May 2018	High Tide (ft)	4.2
15	15 May 2018	High Tide Time	1004
15	15 May 2018	Low Tide (ft)	1.02
15	15 May 2018	Low Tide Time	1531
15	15 May 2018	Comments	none
16	15 May 2018	Depth (m)	26
16	15 May 2018	Arrive Time	1110
16	15 May 2018	Depart Time	1124
16	15 May 2018	Air Temp (C)	16
16	15 May 2018	Weather	Partly Cloudy
16	15 May 2018	Visibility (mi)	5
16	15 May 2018	Wind Speed (kts)	7
16	15 May 2018	Wind Dir	SW
16	15 May 2018	Water Color	Green
16	15 May 2018	Wave Ht Low (ft)	3
16	15 May 2018	Wave Period (sec)	9
16	15 May 2018	Sea State	Calm
16	15 May 2018	High Tide (ft)	4.2
16	15 May 2018	High Tide Time	1004
16	15 May 2018	Low Tide (ft)	1.02
16	•	Low Tide (II)	1531
	15 May 2018		
16	15 May 2018	Comments	none
17	15 May 2019	Denth (m)	53
	15 May 2018	Depth (m)	
7 7	15 May 2018	Arrive Time	906
7 7	15 May 2018	Depart Time	913
17	15 May 2018	Air Temp (C)	16 Deaths Clauds
17	15 May 2018	Weather	Partly Cloudy
17	15 May 2018	Visibility (mi)	5

Station	Date	Parameter	Value
17	15 May 2018	Wind Speed (kts)	9
17	15 May 2018	Wind Dir	SW
17	15 May 2018	Water Color	Green
17	15 May 2018	Wave Ht Low (ft)	3
17	15 May 2018	Wave Period (sec)	9
17	15 May 2018	Sea State	Calm
17	15 May 2018	High Tide (ft)	4.2
17	15 May 2018	High Tide Time	1004
17	15 May 2018	Low Tide (ft)	1.02
17	15 May 2018	Low Tide Time	1531
17	15 May 2018	Comments	none
	10 May 2010	Commenta	
18	15 May 2018	Depth (m)	37
18	15 May 2018	Arrive Time	1208
18	15 May 2018	Depart Time	1222
18	15 May 2018	Air Temp (C)	16
18	15 May 2018	Weather	Clear
18	15 May 2018	Visibility (mi)	8
18	15 May 2018	Wind Speed (kts)	10
18	15 May 2018	Wind Dir	SW
18	15 May 2018	Water Color	Green
18	15 May 2018	Wave Ht Low (ft)	3
18	15 May 2018	Wave Period (sec)	9
18	15 May 2018	Sea State	Light chop
18	15 May 2018	High Tide (ft)	4.2
18	15 May 2018	High Tide Time	1004
18	15 May 2018	Low Tide (ft)	1.02
18	15 May 2018	Low Tide Time	1531
18	15 May 2018	Comments	none
-	, <u>,</u>		
19	15 May 2018	Depth (m)	29
19	15 May 2018	Arrive Time	1156
19	15 May 2018	Depart Time	1200
19	15 May 2018	Air Temp (C)	16
19	15 May 2018	Weather	Clear
19	15 May 2018	Visibility (mi)	8
19	15 May 2018	Wind Speed (kts)	9
19	15 May 2018	Wind Dir	SW
19	15 May 2018	Water Color	Green
19	15 May 2018	Wave Ht Low (ft)	3
19	15 May 2018	Wave Period (sec)	9
19	15 May 2018	Sea State	Light chop
19	15 May 2018	High Tide (ft)	4.2
19	15 May 2018	High Tide Time	1004
19	15 May 2018	Low Tide (ft)	1.02
19	15 May 2018	Low Tide Time	1531
19	15 May 2018	Comments	none

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

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	pН	Dens (σ-t)	Chlor (µg/L)
l1	15 May 2018	1	15.32	73.08	9.7	33.64	8.2	24.8	1.76
11	15 May 2018	2	15.31	75.63	9.7	33.64	8.2	24.9	1.96
11	15 May 2018	3	15.31	76.40	9.7	33.64	8.2	24.9	2.06
11	15 May 2018	4	15.30	76.39	9.7	33.64	8.2	24.9	2.39
1	15 May 2018	5	15.29	76.28	9.7	33.64	8.2	24.9	2.86
1	15 May 2018	6	15.20	76.41	9.8	33.64	8.2	24.9	4.03
1	15 May 2018	7	15.03	76.25	9.8	33.64	8.2	24.9	4.82
1	15 May 2018	8	14.98	76.25	9.8	33.63	8.2	24.9	5.85
1	15 May 2018	9	14.76	75.52	9.5	33.64	8.2	25.0	6.51
1	15 May 2018	10	13.75	73.82	9.3	33.67	8.2	25.2	10.83
11	15 May 2018	11	13.46	68.98	9.1	33.64	8.2	25.2	19.40
11	15 May 2018	12	13.47	69.57	8.5	33.60	8.1	25.2	21.90
11	15 May 2018	13	12.05	67.13	7.0	33.69	8.1	25.6	15.35
1	15 May 2018	14	11.38	74.89	6.0	33.61	7.9	25.6	12.63
1	15 May 2018	15	11.44	76.40	5.6	33.58	7.9	25.6	11.01
11	15 May 2018	16	11.43	78.55	5.6	33.60	7.9	25.6	9.82
11	15 May 2018	17	11.32	79.63	5.5	33.60	7.9	25.6	7.21
11	15 May 2018	18	11.31	80.62	5.4	33.60	7.9	25.6	8.24
11	15 May 2018	19	11.28	81.49	5.3	33.60	7.9	25.6	7.56
11	15 May 2018	20	11.24	82.86	5.2	33.61	7.9	25.6	5.81
11	15 May 2018	21	11.23	83.44	5.2	33.61	7.9	25.6	4.53
11	15 May 2018	22	11.22	83.74	5.2	33.61	7.9	25.7	4.94
11	15 May 2018	23	11.21	84.17	5.1	33.62	7.9	25.7	3.64
11	15 May 2018	24	11.18	84.66	5.0	33.63	7.8	25.7	2.77
11	15 May 2018	25	11.19	85.73	4.9	33.64	7.8	25.7	2.10
11	15 May 2018	26	11.20	85.22	4.9	33.64	7.8	25.7	1.85
11	15 May 2018	27	11.19	85.79	4.9	33.64	7.8	25.7	1.56
11	15 May 2018	28	11.19	86.10	4.9	33.65	7.8	25.7	1.51
11	15 May 2018	29	11.18	86.06	4.9	33.65	7.8	25.7	1.51
11	15 May 2018	30	11.19	86.32	4.8	33.65	7.8	25.7	1.53
11	15 May 2018	31	11.17	86.25	4.8	33.65	7.8	25.7	1.21
11	15 May 2018	32	11.15	86.57	4.7	33.65	7.8	25.7	0.88
11	15 May 2018	33	11.15	86.68	4.7	33.65	7.8	25.7	0.79
11	15 May 2018	34	11.13	87.36	4.6	33.65	7.8	25.7	0.64
11	15 May 2018	35	11.12	87.34	4.6	33.65	7.8	25.7	0.57
11	15 May 2018	36	11.12	87.41	4.6	33.65	7.8	25.7	0.52
11	15 May 2018	37	11.10	87.46	4.5	33.66	7.8	25.7	0.51
11	15 May 2018	38	11.08	87.60	4.5	33.66	7.8	25.7	0.51
11	15 May 2018	39	11.04	87.67	4.5	33.66	7.8	25.7	0.50
11	15 May 2018	40	11.04	87.70	4.5	33.66	7.8	25.7	0.46
11	15 May 2018	40	11.02	87.67	4.5	33.66	7.8	25.7	0.40
11	15 May 2018	41	11.00	87.59	4.5	33.66	7.8	25.7	0.47
11	15 May 2018	42	10.99	87.59	4.5	33.66	7.8	25.7	0.49
I1	15 May 2018 15 May 2018	43	10.99	87.59 87.59	4.5 4.5	33.66	7.8 7.8	25.7	0.49
11	15 May 2018 15 May 2018	44	10.99	87.59 87.59	4.5	33.66	7.8	25.7	0.50
I1	15 May 2018 15 May 2018	45	10.99	87.59 87.57	4.5 4.5	33.66	7.8	25.7	0.50
1 1		40	10.98				7.8 7.8	25.7	0.53 0.48
I1 I1	15 May 2018	47	10.98	87.57 87.64	4.5	33.66	7.8 7.8	25.7 25.7	0.48 0.52
	15 May 2018			87.64 87.63	4.5	33.66			
11	15 May 2018	49	10.96	87.63 87.57	4.5	33.66	7.8	25.7	0.48
11	15 May 2018	50	10.94	87.57	4.5	33.66	7.8	25.7	0.49
1	15 May 2018	51	10.92	87.54	4.4	33.66	7.8	25.8	0.51

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
1	15 May 2018	52	10.87	87.48	4.3	33.67	7.8	25.8	0.51
1	15 May 2018	53	10.82	87.28	4.2	33.68	7.8	25.8	0.55
1	15 May 2018	54	10.81	87.11	4.1	33.68	7.8	25.8	0.60
1	15 May 2018	55	10.80	87.12	4.1	33.68	7.8	25.8	0.65
1	15 May 2018	56	10.79	87.28	4.2	33.68	7.8	25.8	0.68
1	15 May 2018	57	10.79	87.04	4.2	33.68	7.8	25.8	0.58
1	15 May 2018	58	10.78	87.20	4.2	33.68	7.8	25.8	0.66
I1	15 May 2018	59	10.78	87.20	4.2	33.68	7.8	25.8	0.65
l1	15 May 2018	60	10.75	87.31	4.1	33.69	7.8	25.8	0.57
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I10	15 May 2018	1	15.84	77.80	9.6	33.64	8.2	24.7	0.67
I10	15 May 2018	2	15.84	78.18	9.6	33.64	8.2	24.7	0.67
I10	15 May 2018	3	15.77	78.33	9.6	33.64	8.2	24.8	0.72
I10	15 May 2018	4	15.70	78.32	9.6	33.64	8.2	24.8	0.82
I10	15 May 2018	5	15.51	78.47	9.7	33.64	8.2	24.8	0.94
I10	15 May 2018	6	15.37	79.30	9.7	33.63	8.2	24.8	1.03
I10	15 May 2018	7	15.35	79.51	9.7	33.63	8.2	24.8	1.15
110	15 May 2018	8	15.34	79.41	9.7	33.63	8.2	24.8	1.30
110	15 May 2018	9	15.29	79.59	9.7	33.62	8.2	24.8	1.47
I10	15 May 2018	10	15.02	79.84	9.6	33.63	8.2	24.9	1.76
I10	15 May 2018	11	14.75	80.21	9.6	33.62	8.2	25.0	1.96
110	15 May 2018	12	14.34	80.01	9.4	33.61	8.2	25.0	2.25
110	15 May 2018	13	13.76	80.80	9.5	33.59	8.2	25.1	2.44
110	15 May 2018	14	13.63	80.54	9.4	33.58	8.2	25.2	3.02
I10	15 May 2018	15	13.28	76.54	9.4	33.60	8.2	25.3	4.67
I10	15 May 2018	16	13.07	73.44	9.3	33.61	8.2	25.3	8.78
I10 I10	15 May 2018	17	12.99	73.95	9.2	33.61	8.2	25.3	10.76
I10 I10	15 May 2018	17	12.99	67.94	8.8	33.61	8.1	25.3	15.26
I10	15 May 2018	19	12.76	66.80	8.7	33.60	8.1	25.4	15.20
110	15 May 2016	19	12.74	00.00	0.7	33.00	0.1	25.4	15.02
111	15 May 2018	1	14.95	73.48	9.8	33.64	8.2	24.9	0.97
111	15 May 2018	2	14.93	73.59	9.8	33.64	8.2	24.9	0.97
111	15 May 2018	3	14.87	73.42	9.7	33.64	8.2	25.0	0.99
111	15 May 2018	4	14.38	73.22	9.9	33.65	8.2	25.1	1.39
111	15 May 2018	5	14.37	73.44	10.0	33.63	8.2	25.1	1.76
I11	15 May 2018	6	14.26	73.08	10.0	33.63	8.2	25.1	2.23
111	15 May 2018	7	14.09	73.57	10.0	33.63	8.2	25.1	3.05
111	15 May 2018	8	13.94	74.31	9.9	33.63	8.2	25.1	3.95
111	15 May 2018	9	13.70	74.83	9.9	33.62	8.2	25.2	4.80
111	15 May 2018	10	13.51	76.30	9.6	33.61	8.2	25.2	5.11
111	15 May 2018	11	13.40	71.90	9.4	33.62	8.2	25.2	6.57
I11	15 May 2018	12	13.33	71.30	9.4	33.62	8.2	25.2	6.90
I11	15 May 2018	12	13.32	71.90	9.1	33.62	8.2	25.3	6.69
	10 May 2010	13	10.02	71.30	3.1	00.02	0.2	20.0	0.09
I12	17 May 2018	1	15.97	73.02	9.4	33.65	8.2	24.7	0.57
I12	17 May 2018	2	15.83	76.71	9.4	33.65	8.2	24.8	0.73
I12	17 May 2018	3	15.75	76.97	9.4	33.66	8.2	24.8	0.86
I12	17 May 2018	4	15.67	76.80	9.4	33.66	8.2	24.8	1.17
I12	17 May 2018	5	15.69	76.86	9.4	33.66	8.2	24.8	1.28
112	17 May 2018	6	15.57	76.63	9.4	33.66	8.2	24.8	1.43
112	17 May 2018	7	15.45	76.91	9.4	33.65	8.2	24.8	1.66
112	17 May 2018	8	15.24	76.97	9.0	33.64	8.2	24.9	2.10
112	17 May 2018	9	14.31	76.78	8.6	33.60	8.2	25.0	3.09
112	17 May 2018	10	14.36	76.90	7.8	33.56	8.2	25.0	3.29
112	17 May 2018	11	11.95	75.17	6.2	33.48	8.0	25.4	5.97
114	17 May 2010	11	11.00	10.17	0.2	00.40	0.0	20.7	5.57

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS (%)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
I12	17 May 2018	12	11.52	74.23	5.5	33.47	7.9	25.5	10.08
l12	17 May 2018	13	11.55	72.81	5.2	33.48	7.9	25.5	13.91
l12	17 May 2018	14	11.50	66.12	5.3	33.54	7.9	25.5	15.73
112	17 May 2018	15	11.49	68.07	5.3	33.56	7.9	25.6	18.51
112	17 May 2018	16	11.48	67.65	5.2	33.57	7.9	25.6	20.90
112	17 May 2018	17	11.48	70.51	5.2	33.58	7.9	25.6	21.40
l12	17 May 2018	18	11.46	68.63	5.2	33.58	7.9	25.6	21.63
l12	17 May 2018	19	11.43	64.98	5.1	33.58	7.9	25.6	19.83
I12	17 May 2018	20	11.43	68.55	5.0	33.58	7.9	25.6	19.51
l12	17 May 2018	21	11.42	73.56	5.0	33.58	7.9	25.6	17.49
l12	17 May 2018	22	11.39	71.80	4.9	33.59	7.9	25.6	14.87
l12	17 May 2018	23	11.38	73.60	4.8	33.59	7.9	25.6	14.12
l12	17 May 2018	24	11.31	73.75	4.8	33.60	7.9	25.6	11.12
I12	17 May 2018	25	11.23	73.46	4.7	33.60	7.8	25.6	8.33
I12	17 May 2018	26	11.22	75.69	4.7	33.60	7.8	25.6	8.30
I12	17 May 2018	27	11.22	76.78	4.6	33.60	7.8	25.6	8.00
112	17 May 2018	28	11.22	75.79	4.6	33.60	7.8	25.6	7.82
	11 may 2010	20		10.10		00.00	1.0	20.0	1.02
I13	17 May 2018	1	16.06	79.91	9.4	33.63	8.3	24.7	0.48
113	17 May 2018	2	16.09	80.19	9.4	33.64	8.3	24.7	0.50
113	17 May 2018	3	16.04	80.35	9.4	33.65	8.3	24.7	0.47
113	17 May 2018	4	15.87	80.38	9.5	33.64	8.3	24.7	0.53
113	17 May 2018	5	15.84	80.12	9.4	33.64	8.3	24.7	0.57
113	17 May 2018	6	15.81	79.90	9.5	33.64	8.3	24.7	0.70
113	17 May 2018	7	15.60	79.57	9.5	33.66	8.3	24.8	0.83
113	17 May 2018	8	14.24	73.95	10.1	33.71	8.3	25.1	1.55
113	17 May 2018	9	13.73	66.58	10.3	33.64	8.2	25.2	4.15
113	17 May 2018	10	13.21	61.07	9.7	33.65	8.2	25.3	9.11
113	17 May 2018	11	12.81	55.86	9.0	33.64	8.2	25.4	17.22
113	17 May 2018	12	12.58	55.29	8.4	33.63	8.1	25.4	27.99
113	17 May 2018	13	12.44	64.31	7.7	33.63	8.1	25.4	34.91
113	17 May 2018	14	12.15	66.12	7.0	33.64	8.0	25.5	25.76
113	17 May 2018	15	11.91	70.03	6.5	33.63	8.0	25.5	19.10
113	17 May 2018	16	11.92	73.06	6.3	33.63	8.0	25.5	16.90
113	17 May 2018	17	11.84	71.06	6.2	33.63	8.0	25.6	15.92
113	17 May 2018	18	11.77	75.19	6.0	33.63	8.0	25.6	15.50
113	17 May 2018	19	11.63	73.64	5.8	33.63	7.9	25.6	12.05
113	17 May 2018	20	11.58	75.11	5.6	33.63	7.9	25.6	10.35
113	17 May 2018	21	11.56	78.34	5.6	33.64	7.9	25.6	10.70
113	17 May 2018	22	11.48	75.83	5.5	33.64	7.9	25.6	10.23
113	17 May 2018	23	11.41	77.31	5.4	33.65	7.9	25.6	9.22
113	17 May 2018	23	11.35	79.68	5.3	33.65	7.9	25.7	8.25
113	17 May 2018	24	11.23	80.78	5.1	33.66	7.9	25.7	6.18
I13	17 May 2018	26	11.25	83.10	4.9	33.66	7.9	25.7	5.02
113	17 May 2018	27	11.17	83.38	4.9	33.66	7.9	25.7	3.98
113	17 May 2018	28	11.13	84.51	4.9	33.66	7.9	25.7	3.63
113	17 May 2018	20	11.07	84.32	4.9	33.66	7.8	25.7	3.26
113	17 May 2018	30	11.07	85.42	4.8	33.66	7.8	25.7	2.38
113	17 May 2018	31	10.97	86.31	4.6	33.67	7.8	25.7	2.09
113	17 May 2018	32	10.88	86.03	4.0	33.67	7.8	25.8	1.73
113	17 May 2018 17 May 2018	32	10.88	85.95	4.4	33.67	7.8	25.8	1.73
113	17 May 2018 17 May 2018	33	10.87	85.34	4.3	33.68	7.8	25.8	1.30
113	17 May 2018 17 May 2018	34	10.84	85.34 84.80	4.2	33.68	7.8	25.8	1.36
I13 I13	17 May 2018 17 May 2018	35	10.84	84.80 84.28	4.2	33.68	7.8	25.8	1.30
113	17 May 2018 17 May 2018	30			4.1				
113	17 Way 2018	31	10.84	84.11	4.1	33.68	7.8	25.8	1.54

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS (%)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
I13	17 May 2018	38	10.84	84.49	4.1	33.68	7.8	25.8	1.42
114	17 May 2018	1	16.07	78.71	9.5	33.65	8.3	24.7	0.46
114	17 May 2018	2	16.03	78.81	9.5	33.66	8.3	24.7	0.50
114	17 May 2018	3	16.03	78.53	9.4	33.66	8.3	24.7	0.54
114	17 May 2018	4	15.95	78.11	9.4	33.66	8.3	24.7	0.64
114	17 May 2018	5	15.81	76.63	9.4	33.67	8.2	24.8	0.79
114	17 May 2018	6	15.62	75.53	9.4	33.66	8.2	24.8	1.02
114	17 May 2018	7	15.45	75.79	9.6	33.65	8.2	24.8	1.40
114	17 May 2018	8	15.45	75.90	9.6	33.65	8.2	24.8	1.65
114	17 May 2018	9	15.33	75.77	9.4	33.64	8.2	24.9	2.28
I14	17 May 2018	10	14.18	75.72	9.2	33.67	8.2	25.1	4.72
I14	17 May 2018	11	12.45	65.68	9.0	33.58	8.2	25.4	14.69
I14	17 May 2018	12	12.12	58.99	8.3	33.52	8.1	25.4	32.75
I14	17 May 2018	13	12.09	60.80	7.8	33.52	8.1	25.4	38.27
114	17 May 2018	14	11.98	57.65	7.6	33.54	8.1	25.5	43.32
I14	17 May 2018	15	11.90	52.21	7.4	33.56	8.1	25.5	48.04
114	17 May 2018	16	11.73	45.77	6.8	33.57	8.0	25.5	41.34
114	17 May 2018	17	11.56	54.41	6.1	33.58	8.0	25.6	30.62
I14	17 May 2018	18	11.45	65.86	5.5	33.57	7.9	25.6	25.29
I14	17 May 2018	19	11.46	70.60	5.3	33.57	7.9	25.6	21.82
I14	17 May 2018	20	11.42	65.53	5.2	33.58	7.9	25.6	15.97
I14	17 May 2018	21	11.40	73.76	5.1	33.59	7.9	25.6	13.81
I14	17 May 2018	22	11.37	74.22	5.0	33.59	7.9	25.6	12.37
I14	17 May 2018	23	11.37	73.83	4.9	33.59	7.9	25.6	12.58
114	17 May 2018	24	11.35	73.34	4.8	33.60	7.9	25.6	10.88
114	17 May 2018	25	11.26	75.82	4.7	33.60	7.8	25.6	9.91
114	17 May 2018	26	11.25	76.42	4.7	33.61	7.8	25.6	8.63
114	17 May 2018	27	11.24	74.62	4.6	33.61	7.8	25.6	7.92
114	17 May 2018	28	11.25	74.42	4.6	33.60	7.8	25.6	8.14
115	17 May 2018	1	16.06	67.37	9.4	33.59	8.3	24.7	0.43
115	17 May 2018	2	16.01	79.84	9.4	33.64	8.3	24.7	0.43
115	17 May 2018	3	15.91	79.79	9.5	33.65	8.3	24.7	0.52
115	17 May 2018	4	15.68	78.91	9.6	33.65	8.3	24.8	0.67
115	17 May 2018	5	15.66	78.70	9.6	33.64	8.3	24.8	0.79
115	17 May 2018	6	15.67	78.75	9.6	33.64	8.3	24.8	0.83
115	17 May 2018	7	15.64	78.52	9.6	33.64	8.3	24.8	1.04
115	17 May 2018	8	15.48	77.26	9.4	33.64	8.3	24.8	1.54
115	17 May 2018	9	14.84	76.74	9.3	33.65	8.3	25.0	2.79
115	17 May 2018	10	13.69	74.22	9.2	33.59	8.2	25.2	5.01
115	17 May 2018	11	12.53	72.78	7.6	33.53	8.1	25.3	9.34
115	17 May 2018	12	11.74	69.87	6.4	33.52	8.0	25.5	16.45
115	17 May 2018	13	11.53	68.06	5.9	33.57	8.0	25.6	22.12
115	17 May 2018	14	11.37	71.64	5.3	33.57	7.9	25.6	21.33
115	17 May 2018	15	11.36	73.13	5.1	33.57	7.9	25.6	19.17
115	17 May 2018	16	11.36	72.13	5.0	33.58	7.9	25.6	15.99
115	17 May 2018	17	11.36	70.47	5.0	33.58	7.9	25.6	14.34
115	17 May 2018	18	11.36	73.57	4.9	33.58	7.9	25.6	14.68
115	17 May 2018	19	11.36	74.85	4.9	33.59	7.9	25.6	16.39
115	17 May 2018	20	11.34	72.30	4.9	33.59	7.9	25.6	14.20
115	17 May 2018	21	11.31	71.00	4.9	33.59	7.9	25.6	13.53
115	17 May 2018	22	11.29	76.34	4.9	33.59	7.9	25.6	10.71
I15	17 May 2018	23	11.27	78.87	5.0	33.59	7.9	25.6	9.63
I15	17 May 2018	24	11.27	81.11	5.0	33.60	7.9	25.6	7.23
I15	17 May 2018	24	11.27	81.11	5.0	33.60	7.9	25.6	7.23

Station	Date	Depth (m)	Temp (°C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
l15	17 May 2018	25	11.23	79.04	4.8	33.60	7.9	25.6	6.74
l15	17 May 2018	26	11.16	78.81	4.7	33.62	7.8	25.7	6.19
115	17 May 2018	27	11.15	78.16	4.6	33.62	7.8	25.7	5.69
I15	17 May 2018	28	11.18	78.95	4.6	33.61	7.8	25.7	6.38
I15	17 May 2018	29	11.16	78.04	4.6	33.62	7.8	25.7	5.55
I15	17 May 2018	30	11.16	78.65	4.6	33.62	7.8	25.7	6.09
115	17 May 2018	31	11.16	78.59	4.6	33.62	7.8	25.7	6.05
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116	17 May 2018	1	16.06	79.48	9.4	33.65	8.2	24.7	0.53
I16	17 May 2018	2	16.06	79.61	9.4	33.65	8.3	24.7	0.57
I16	17 May 2018	3	15.89	78.36	9.4	33.66	8.2	24.7	0.64
I16	17 May 2018	4	15.74	77.27	9.4	33.66	8.2	24.8	0.84
I16	17 May 2018	5	15.70	76.34	9.4	33.66	8.2	24.8	1.06
I16	17 May 2018	6	15.62	75.44	9.4	33.66	8.2	24.8	1.36
I16	17 May 2018	7	15.51	75.58	9.4	33.66	8.2	24.8	1.57
116	17 May 2018	8	15.41	76.16	9.4	33.65	8.2	24.8	1.99
116	17 May 2018	9	15.09	76.81	9.5	33.64	8.2	24.9	2.51
I16	17 May 2018	10	14.35	75.35	9.3	33.64	8.2	25.1	4.21
I16	17 May 2018	11	12.56	67.08	8.8	33.60	8.2	25.4	13.28
I16	17 May 2018	12	12.30	63.26	8.0	33.56	8.1	25.4	22.55
I16	17 May 2018	12	12.20	67.21	7.1	33.54	8.0	25.5	24.96
I16	17 May 2018	13	11.75	69.52	6.2	33.52	8.0	25.5	23.38
I16	17 May 2018	14	11.75	62.12	5.6	33.53	7.9	25.5	23.38
	-				5.6			25.5 25.6	
I16	17 May 2018	16	11.50	68.66		33.54	7.9		22.25
I16	17 May 2018	17	11.49	68.17	5.3	33.56	7.9	25.6	19.76
I16	17 May 2018	18	11.45	69.29	5.2	33.58	7.9	25.6	20.20
I16	17 May 2018	19	11.45	69.84	5.1	33.58	7.9	25.6	18.33
116	17 May 2018	20	11.41	67.82	5.0	33.58	7.9	25.6	15.31
I16	17 May 2018	21	11.40	73.67	5.0	33.59	7.9	25.6	14.69
I16	17 May 2018	22	11.38	72.70	4.9	33.59	7.9	25.6	12.09
116	17 May 2018	23	11.33	74.11	4.8	33.60	7.9	25.6	11.98
I16	17 May 2018	24	11.26	76.05	4.7	33.60	7.8	25.6	9.86
I16	17 May 2018	25	11.25	75.80	4.6	33.60	7.8	25.6	8.95
I16	17 May 2018	26	11.25	76.94	4.6	33.60	7.8	25.6	8.08
I16	17 May 2018	27	11.25	76.26	4.6	33.61	7.8	25.6	8.49
I16	17 May 2018	28	11.25	76.56	4.6	33.61	7.8	25.6	7.98
117	17 May 2018	1	15.91	65.76	9.3	33.66	8.2	24.7	0.59
I17	17 May 2018	2	15.87	70.90	9.3	33.66	8.2	24.7	0.65
117	17 May 2018	3	15.73	75.24	9.3	33.67	8.2	24.8	0.71
117	17 May 2018	4	15.64	75.52	9.4	33.66	8.2	24.8	0.88
117	17 May 2018	5	15.54	75.26	9.4	33.66	8.2	24.8	1.12
117	17 May 2018	6	15.36	75.66	9.5	33.65	8.2	24.9	1.49
117	17 May 2018	7	15.31	76.27	9.6	33.64	8.2	24.9	1.81
117	17 May 2018	8	15.28	76.51	9.4	33.63	8.2	24.9	2.23
117	17 May 2018	9	14.44	77.60	9.3	33.63	8.2	25.0	3.44
117	17 May 2018	10	13.21	74.52	9.3	33.60	8.2	25.3	7.08
117	17 May 2018	11	12.56	65.98	9.0	33.57	8.2	25.4	15.40
117	17 May 2018	12	12.45	66.24	8.7	33.56	8.1	25.4	22.36
117	17 May 2018	12	12.45	61.68	7.9	33.56	8.1	25.4 25.4	22.30
I17 I17	17 May 2018 17 May 2018	13	11.68	53.84	6.8	33.58	8.0	25.4 25.5	30.06
I17 I17	17 May 2018 17 May 2018	14	11.65	53.64 62.93	6.1	33.56	8.0 8.0	25.5 25.5	30.06
I17 I17	17 May 2018 17 May 2018	15 16	11.55	58.43	5.8	33.56	8.0 7.9	25.5 25.6	27.96
	-								
17	17 May 2018	17	11.50	63.23	5.5	33.57	7.9	25.6	23.57
l17	17 May 2018	18	11.47	68.37	5.4	33.57	7.9	25.6	22.61

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS (%)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
I17	17 May 2018	19	11.50	67.55	5.3	33.57	7.9	25.6	22.03
117	17 May 2018	20	11.43	69.15	5.2	33.58	7.9	25.6	17.08
117	17 May 2018	21	11.42	71.33	5.0	33.59	7.9	25.6	15.23
117	17 May 2018	22	11.42	71.81	5.0	33.59	7.9	25.6	15.37
117	17 May 2018	23	11.42	72.73	4.9	33.59	7.9	25.6	14.20
117	17 May 2018	24	11.41	69.97	4.9	33.59	7.9	25.6	13.77
I17	17 May 2018	25	11.41	69.12	4.8	33.59	7.9	25.6	13.20
	, , , , , , , , , , , , , , , , , , ,								
I18	17 May 2018	1	15.83	75.87	9.4	33.66	8.2	24.8	0.80
I18	17 May 2018	2	15.82	75.46	9.4	33.66	8.2	24.8	0.82
I18	17 May 2018	3	15.81	75.99	9.4	33.66	8.2	24.8	0.89
I18	17 May 2018	4	15.77	75.66	9.4	33.66	8.2	24.8	1.00
I18	17 May 2018	5	15.73	75.18	9.4	33.66	8.2	24.8	1.27
I18	17 May 2018	6	15.22	73.77	9.3	33.67	8.2	24.9	1.81
I18	17 May 2018	7	14.44	73.72	9.4	33.65	8.2	25.1	2.53
118	17 May 2018	8	14.19	73.74	9.3	33.62	8.2	25.1	3.64
118	17 May 2018	9	13.99	73.17	9.3	33.62	8.2	25.1	4.40
118	17 May 2018	10	13.92	72.47	9.3	33.61	8.2	25.1	5.74
118	17 May 2018	11	13.79	71.36	9.2	33.60	8.2	25.1	7.48
118	17 May 2018	12	13.42	68.64	9.0	33.58	8.2	25.2	11.02
118	17 May 2018	13	12.84	66.38	8.8	33.53	8.1	25.3	16.43
118	17 May 2010	14	12.61	61.54	7.9	33.57	8.1	25.4	21.69
I18	17 May 2010	15	11.94	61.48	6.7	33.58	8.0	25.5	28.34
I18	17 May 2018	16	11.75	62.72	5.9	33.58	7.9	25.5	29.05
I18	17 May 2018 17 May 2018	17	11.65	57.03	5.6	33.58	7.9	25.5	29.05
I18	17 May 2018	18	11.64	61.11	5.5	33.58	7.9	25.6	26.59
I18	17 May 2018 17 May 2018	19	11.65	61.36	5.5	33.58	7.9	25.6	26.45
110	17 Way 2010	15	11.05	01.50	5.5	33.30	1.5	25.0	20.45
12	15 May 2018	1	15.78	78.67	9.4	33.62	8.2	24.7	0.41
12	15 May 2018	2	15.78	83.27	9.3	33.63	8.2	24.7	0.40
12	15 May 2018	3	15.77	83.52	9.4	33.63	8.2	24.7	0.42
12	15 May 2018	4	15.77	83.75	9.3	33.63	8.2	24.7	0.42
12	15 May 2018	5	15.77	83.87	9.4	33.63	8.2	24.7	0.52
12	15 May 2018	6	15.77	83.89	9.4	33.63	8.2	24.7	0.63
12	15 May 2018	7	15.76	83.83	9.4	33.63	8.2	24.7	0.69
12	15 May 2018	8	15.76	83.86	9.4	33.63	8.2	24.7	0.65
12	15 May 2018	9	15.76	83.82	9.4	33.63	8.2	24.7	0.63
12	15 May 2018	10	15.74	83.72	9.4	33.63	8.2	24.8	0.73
12	15 May 2018	11	15.54	83.15	9.4	33.63	8.2	24.8	0.98
12	15 May 2018	12	14.78	82.02	9.4	33.64	8.2	24.0	1.83
12	15 May 2018	13	13.56	79.06	9.4	33.62	8.2	25.2	3.90
12	15 May 2018	13	12.64	79.00	9.3 8.9	33.60	8.2	25.2	15.89
12	15 May 2018 15 May 2018	14	12.04	63.55	8.1	33.56	o.z 8.1	25.4 25.4	36.36
12	15 May 2018 15 May 2018	16	12.17	57.08	7.4	33.55	8.1	25.4	42.55
12	15 May 2018	17	12.12	57.08	6.2	33.55	8.0	25.4 25.6	42.55 36.33
12	15 May 2018	17	11.56	65.08	5.5	33.59	8.0 7.9	25.6	28.34
12	15 May 2018	10	11.45	69.16	5.5	33.57	7.9 7.9	25.6	
	-								23.67
12 12	15 May 2018	20	11.39	70.78	5.2 5.2	33.58	7.9	25.6 25.6	20.17
12	15 May 2018	21	11.38	71.79	5.2	33.58	7.9	25.6	19.63
12	15 May 2018	22	11.38	70.62	5.2	33.58	7.9	25.6	19.17
12	15 May 2018	23	11.38	68.07	5.2	33.58	7.9	25.6	17.98
12	15 May 2018	24	11.38	65.35	5.1	33.59	7.9	25.6	16.92
12	15 May 2018	25	11.39	71.66	5.1	33.59	7.9	25.6	18.57
12	15 May 2018	26	11.38	66.81	5.1	33.59	7.9	25.6	16.63
12	15 May 2018	27	11.38	69.18	5.1	33.59	7.9	25.6	17.50

18.00 18.00 17.26 15.73					XMS ($\%$)	Temp ($^{\circ}$ C)	Depth (m)		Station
17.26	25.6	7.9	33.59	5.1	68.92	11.38	28	15 May 2018	12
	25.6	7.9	33.59	5.1	71.54	11.38	29	15 May 2018	12
15.73	25.6	7.9	33.59	5.0	67.09	11.38	30	15 May 2018	12
	25.6	7.9	33.59	5.1	69.16	11.38	31	15 May 2018	12
17.60	25.6	7.9	33.59	5.1	71.01	11.38	32	15 May 2018	12
								-	
0.66	24.7	8.2	33.56	9.2	75.09	15.96	1	17 May 2018	120
0.66	24.7	8.2	33.63	9.3	80.09	15.97	2	17 May 2018	120
0.72	24.7	8.2	33.63	9.3	80.23	15.96	3	17 May 2018	120
0.80	24.7	8.2	33.63	9.1	80.21	15.95	4	17 May 2018	120
1.28	24.9	8.2	33.67	9.5	78.20	15.18	5	17 May 2018	120
3.14	25.1	8.2	33.63	10.2	72.44	13.89	6	17 May 2018	120
14.52	25.3	8.2	33.62	9.3	61.66	13.20	7	17 May 2018	120
25.85	25.4	8.1	33.59	7.8	60.20	12.51	8	17 May 2018	120
17.25	25.4	8.0	33.59	7.0	65.45	12.30	9	17 May 2018	120
15.88	25.4	8.0	33.58	6.7	71.65	12.28	10	17 May 2018	120
11.34	25.5	8.0	33.60	6.3	77.41	12.03	10	17 May 2018	120
6.46	25.5	7.9	33.59	5.9	82.71	11.77	12	17 May 2018	120
3.25	25.6	7.9	33.59	5.5	85.02	11.48	13	17 May 2018	120
1.85	25.6	7.9	33.59	5.2	87.73	11.37	14	17 May 2018	120
1.03	25.7	7.8	33.60	5.2 5.1	88.03	11.18	14	17 May 2018	120
0.73	25.7	7.8	33.60	5.0	88.68	11.18	16	17 May 2018	120
	25.7					11.14		-	
0.66		7.8	33.60	5.0	88.73		17	17 May 2018	120
0.57	25.7	7.8	33.61	4.9	88.67	11.00	18	17 May 2018	120
0.61	25.7	7.8	33.61	4.9	88.66	11.02	19	17 May 2018	120
0.48	25.7	7.8	33.62	4.8	88.65	10.98	20	17 May 2018	120
0.52	25.7	7.8	33.62	4.8	88.62	10.97	21	17 May 2018	120
0.54	25.7	7.8	33.62	4.8	88.60	10.97	22	17 May 2018	120
0.50	25.7	7.8	33.63	4.8	88.62	10.96	23	17 May 2018	120
0.53	25.7	7.8	33.63	4.8	88.57	10.96	24	17 May 2018	120
0.48	25.7	7.8	33.63	4.8	88.58	10.96	25	17 May 2018	120
0.44	25.7	7.8	33.63	4.8	88.57	10.95	26	17 May 2018	120
0.47	25.7	7.8	33.63	4.8	88.60	10.95	27	17 May 2018	120
0.52	25.7	7.8	33.63	4.8	88.55	10.95	28	17 May 2018	120
0.51	25.7	7.8	33.63	4.8	88.54	10.95	29	17 May 2018	120
0.51	25.7	7.8	33.63	4.7	88.52	10.94	30	17 May 2018	120
0.52	25.7	7.8	33.63	4.7	88.57	10.94	31	17 May 2018	120
0.52	25.7	7.8	33.63	4.7	88.62	10.94	32	17 May 2018	120
0.61		7.8	33.63		88.57			-	
0.60								-	
0.63		7.8	33.63		88.81			•	
0.50	25.7	7.8	33.63	4.7	88.75	10.90	36	17 May 2018	120
0.46	25.7	7.8	33.63	4.7	89.05	10.89	37	17 May 2018	120
0.41	25.7	7.8	33.63	4.7	89.25	10.85	38	•	120
0.38	25.7	7.8	33.63	4.7	89.18	10.83	39	17 May 2018	120
0.41	25.7	7.8	33.64	4.7	89.13	10.81	40	17 May 2018	120
0.40	25.8	7.8	33.64	4.6	89.05	10.80	41	17 May 2018	120
0.41	25.8	7.8	33.64	4.6	89.04	10.80	42	17 May 2018	120
0.44	25.8	7.8	33.65	4.6	88.80	10.79	43	17 May 2018	120
0.55	25.8	7.8	33.66	4.5	88.44	10.78	44	17 May 2018	120
0.58	25.8	7.8	33.67	4.4	88.44	10.77	45	17 May 2018	120
0.64	25.8	7.8	33.67	4.3	87.95	10.78	46	17 May 2018	120
0.81	25.8	7.8	33.68	4.3	87.76	10.77	47	17 May 2018	120
0.81	25.8	7.8	33.68	4.3	87.69	10.76	48	17 May 2018	120
0.01	25.8	7.8	33.68	4.2	87.60	10.75	49	17 May 2018	120
	25.7 25.7 25.7 25.7 25.7 25.7 25.7 25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8	7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8	33.63 33.63 33.63 33.63 33.63 33.63 33.64 33.64 33.64 33.64 33.65 33.66 33.67 33.67 33.68 33.68 33.68	4.7 4.7 4.7 4.7 4.7 4.7 4.7 4.7 4.6 4.6 4.6 4.6 4.6 4.5 4.4 4.3 4.3 4.3	88.57 88.50 88.81 89.05 89.25 89.18 89.13 89.05 89.04 88.04 88.44 88.44 88.44 87.95 87.76 87.69	10.93 10.92 10.91 10.89 10.85 10.83 10.81 10.80 10.79 10.78 10.77 10.78 10.77 10.76	 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 	17 May 2018 17 May 2018	120 120 120 120 120 120 120 120 120 120

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	рΗ	Dens (σ-t)	Chlor (µg/L)
120	17 May 2018	50	10.68	87.46	4.1	33.70	7.8	25.8	0.79
120	17 May 2018	51	10.66	87.68	4.0	33.70	7.8	25.8	0.71
120	17 May 2018	52	10.61	88.09	4.0	33.70	7.8	25.8	0.53
120	17 May 2018	53	10.60	88.96	4.0	33.70	7.8	25.8	0.38
120	17 May 2018	54	10.59	88.92	3.9	33.70	7.8	25.8	0.31
120	17 May 2018	55	10.59	88.67	3.9	33.70	7.7	25.8	0.30
I21	17 May 2018	1	15.76	80.34	9.4	33.64	8.3	24.8	0.59
I21	17 May 2018	2	15.76	80.39	9.4	33.64	8.3	24.8	0.58
I21	17 May 2018	3	15.75	80.39	9.4	33.64	8.3	24.8	0.64
I21	17 May 2018	4	15.74	80.32	9.5	33.64	8.3	24.8	0.75
I21	17 May 2018	5	15.74	80.11	9.5	33.64	8.3	24.8	0.91
121	17 May 2018	6	15.72	80.03	9.5	33.64	8.3	24.8	1.09
121	17 May 2018	7	15.71	79.60	9.5	33.64	8.3	24.8	1.20
121	17 May 2018	8	15.45	78.89	9.8	33.64	8.3	24.8	1.62
121	17 May 2018	9	14.92	77.02	9.8	33.66	8.3	25.0	2.17
I21	17 May 2018	10	13.72	72.75	10.0	33.65	8.2	25.2	5.54
I21	17 May 2018	11	13.16	62.34	9.4	33.63	8.2	25.3	16.16
I21	17 May 2018	12	12.77	55.06	8.6	33.62	8.1	25.4	37.01
121	17 May 2018	13	12.51	50.88	7.8	33.63	8.1	25.4	34.95
121	17 May 2018	14	12.38	66.22	7.3	33.62	8.0	25.4	30.61
121	17 May 2018	15	12.06	65.24	6.7	33.63	8.0	25.5	24.78
121	17 May 2018	16	12.07	67.38	6.5	33.62	8.0	25.5	21.61
121	17 May 2018	17	11.86	68.51	6.3	33.63	8.0	25.6	19.25
121	17 May 2018	18	11.89	71.58	6.2	33.63	8.0	25.5	18.12
121	17 May 2018	19	11.68	74.18	5.9	33.64	7.9	25.6	15.02
121	17 May 2018	20	11.62	76.17	5.7	33.64	7.9	25.6	12.84
121	17 May 2018	21	11.55	76.05	5.6	33.65	7.9	25.6	11.08
121	17 May 2018	22	11.46	74.33	5.4	33.65	7.9	25.6	9.45
121	17 May 2018	23	11.45	78.07	5.4	33.65	7.9	25.6	8.84
121	17 May 2018	24	11.43	76.94	5.3	33.65	7.9	25.6	7.78
121	17 May 2018	25	11.40	80.04	5.2	33.65	7.9	25.7	7.40
121	17 May 2018	26	11.18	80.35	5.0	33.66	7.9	25.7	5.05
121	17 May 2018	27	11.16	83.41	4.9	33.65	7.8	25.7	4.43
121	17 May 2018	28	10.94	84.86	4.8	33.67	7.8	25.7	2.95
121	17 May 2018	29	10.89	86.12	4.7	33.67	7.8	25.8	2.12
121	17 May 2018	30	10.91	86.65	4.7	33.66	7.8	25.8	2.12
121	17 May 2018	31	10.91	86.81	4.6	33.67	7.8	25.8	1.84
121	17 May 2018	32	10.85	86.69	4.5	33.67	7.8	25.8	1.39
121	17 May 2018	33	10.86	86.80	4.5	33.67	7.8	25.8	1.38
121	17 May 2018	34	10.80	86.33	4.4	33.68	7.8	25.8	1.47
121	17 May 2018	35	10.80	86.19	4.4	33.68	7.8	25.8	1.39
121	17 May 2018 17 May 2018	36	10.79	85.73	4.3	33.69	7.8	25.8	1.39
121	17 May 2018	37	10.73	85.94	4.2	33.69	7.8	25.8	1.17
121	17 May 2018 17 May 2018	37	10.73	85.73	4.2	33.69	7.8	25.8	1.23
121	17 May 2018 17 May 2018	38	10.73	85.61	4.1	33.69	7.8	25.8	1.19
121	17 May 2018	40	10.73	85.50	4.1	33.69	7.8	25.8	1.12
121	17 May 2018 17 May 2018	40	10.73	85.50 85.56	4.1	33.69	7.8	25.8	1.05
121		41	10.75	00.00	4.1	55.09	0.1	20.0	1.00
122	17 May 2019	1	15 95	75 70	9.4	33 66	Q 2	24 7	0.66
122	17 May 2018	1	15.85	75.72	9.4 9.4	33.66	8.2	24.7	0.66 0.70
122	17 May 2018 17 May 2018	2	15.81 15.76	76.20 76.37	9.4 9.4	33.66	8.2 8.2	24.8 24.8	0.70
	-	3	15.76			33.66			
122	17 May 2018	4	15.52	75.32	9.5	33.66	8.2	24.8	1.24
122	17 May 2018	5	15.47	75.38	9.5	33.65	8.2	24.8	1.70
122	17 May 2018	6	15.47	75.23	9.6	33.65	8.2	24.8	1.90

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
122	17 May 2018	7	15.46	75.85	9.6	33.65	8.2	24.8	2.21
122	17 May 2018	8	15.44	75.66	9.5	33.64	8.2	24.8	2.46
122	17 May 2018	9	15.39	76.27	9.5	33.64	8.2	24.8	2.74
122	17 May 2018	10	15.32	76.98	9.2	33.63	8.2	24.8	3.37
122	17 May 2018	11	13.65	75.73	9.1	33.66	8.2	25.2	7.78
122	17 May 2018	12	12.52	68.50	8.4	33.59	8.1	25.4	20.70
122	17 May 2018	13	12.01	60.14	7.5	33.55	8.0	25.5	29.03
122	17 May 2018	14	11.95	55.45	6.9	33.57	8.0	25.5	33.41
122	17 May 2018	15	11.94	62.40	6.6	33.58	8.0	25.5	34.67
122	17 May 2018	16	11.86	59.43	6.2	33.58	8.0	25.5	29.88
122	17 May 2018	17	11.76	62.52	5.8	33.59	7.9	25.5	26.42
122	17 May 2018	18	11.54	59.98	5.4	33.59	7.9	25.6	21.45
122	17 May 2018	19	11.46	66.78	5.3	33.58	7.9	25.6	21.74
122	17 May 2018	20	11.45	70.56	5.2	33.58	7.9	25.6	19.66
122	17 May 2018	21	11.40	69.91	5.1	33.59	7.9	25.6	16.89
122	17 May 2018	22	11.39	70.93	5.0	33.59	7.8	25.6	13.84
122	17 May 2018	23	11.37	69.34	4.9	33.59	7.8	25.6	13.22
122	17 May 2018	24	11.36	73.66	4.9	33.59	7.8	25.6	13.13
122	17 May 2018	25	11.36	74.30	4.8	33.60	7.8	25.6	12.03
122	17 May 2018	26	11.35	73.07	4.8	33.60	7.8	25.6	11.34
122	17 May 2018	27	11.35	70.84	4.8	33.60	7.8	25.6	10.91
122	17 May 2018	28	11.35	70.52	4.8	33.60	7.8	25.6	11.30
122	17 May 2010	20	11.55	10.52	4.0	00.00	7.0	20.0	11.00
123	17 May 2018	1	15.79	71.05	9.4	33.65	8.2	24.8	0.77
123	17 May 2018	2	15.77	73.68	9.3	33.66	8.2	24.8	0.80
123	17 May 2018	3	15.70	75.91	9.3	33.66	8.2	24.8	0.92
123	17 May 2018	4	15.11	74.75	9.4	33.67	8.2	24.9	1.37
123	17 May 2018	5	14.76	74.33	9.6	33.63	8.2	25.0	1.80
123	17 May 2018	6	14.76	74.75	9.6	33.62	8.2	25.0	2.57
123	17 May 2018	7	14.61	73.46	9.6	33.62	8.2	25.0	3.16
123	17 May 2018	8	14.55	73.43	9.5	33.63	8.2	25.0	3.60
123	17 May 2018	9	14.51	73.87	9.6	33.63	8.2	25.0	4.16
123	17 May 2018	10	14.37	73.83	9.5	33.63	8.2	25.0	4.74
123	17 May 2018	11	14.24	73.92	9.4	33.62	8.2	25.1	5.27
123	17 May 2018	12	13.78	72.83	9.3	33.61	8.2	25.2	6.43
123	17 May 2018	13	13.36	72.04	9.2	33.59	8.2	25.2	7.23
123	17 May 2018	14	13.15	71.06	8.8	33.61	8.2	25.3	8.42
123	17 May 2018	15	12.56	65.37	8.1	33.60	8.1	25.4	13.46
123	17 May 2018	16	12.27	61.09	7.2	33.60	8.1	25.4	18.65
123	17 May 2018	17	11.94	59.09	6.5	33.60	8.0	25.5	21.11
123	17 May 2018	18	11.77	58.20	5.8	33.59	7.9	25.5	21.70
123	17 May 2018	19	11.72	58.79	5.4	33.59	7.9	25.5	24.14
123	17 May 2018	20	11.72	59.23	5.3	33.59	7.9	25.5	24.47
123	17 May 2018	21	11.69	55.72	5.3	33.59	7.9	25.6	24.24
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127	17 May 2018	1	15.86	76.51	9.5	33.66	8.2	24.8	0.73
127	17 May 2018	2	15.84	76.85	9.5	33.66	8.2	24.8	0.74
127	17 May 2018	3	15.83	76.77	9.5	33.66	8.2	24.8	0.88
127	17 May 2018	4	15.80	76.70	9.5	33.66	8.2	24.8	0.98
127	17 May 2018	5	15.69	76.12	9.5	33.66	8.2	24.8	1.20
127	17 May 2018	6	15.59	76.69	9.6	33.65	8.2	24.8	1.41
127	17 May 2018	7	15.53	77.02	9.6	33.65	8.2	24.8	1.82
127	17 May 2018	8	15.51	77.10	9.6	33.64	8.2	24.8	2.27
127	17 May 2018	9	15.48	77.59	9.6	33.64	8.2	24.8	2.62
127	17 May 2018	10	15.47	77.83	9.6	33.63	8.2	24.8	2.81

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
127	17 May 2018	11	15.28	77.48	9.3	33.63	8.2	24.9	3.16
127	17 May 2018	12	13.80	77.44	9.9	33.63	8.2	25.2	3.86
127	17 May 2018	13	13.89	77.58	9.2	33.59	8.2	25.1	5.73
127	17 May 2018	14	12.17	69.11	8.1	33.60	8.1	25.5	17.21
127	17 May 2018	15	11.92	65.03	6.8	33.56	8.0	25.5	27.95
127	17 May 2018	16	11.82	64.39	6.2	33.57	8.0	25.5	29.03
127	17 May 2018	17	11.77	57.51	5.9	33.58	7.9	25.5	27.48
127	17 May 2018	18	11.76	61.42	5.8	33.58	7.9	25.5	29.99
127	17 May 2018	19	11.75	62.74	5.8	33.58	7.9	25.5	27.20
127	17 May 2018	20	11.70	65.08	5.6	33.59	7.9	25.5	25.39
127	17 May 2018	21	11.68	61.78	5.5	33.59	7.9	25.6	22.05
127	17 May 2018	22	11.54	63.83	5.3	33.60	7.9	25.6	20.19
127	17 May 2018	23	11.47	67.41	5.1	33.59	7.9	25.6	18.86
127	17 May 2018	24	11.37	74.20	5.0	33.60	7.9	25.6	15.49
127	17 May 2018	25	11.32	76.42	4.8	33.60	7.8	25.6	12.61
127	17 May 2018	26	11.30	72.46	4.8	33.60	7.8	25.6	10.51
127	17 May 2018	27	11.30	73.37	4.8	33.60	7.8	25.6	9.37
127	17 May 2018	28	11.31	75.24	4.8	33.60	7.8	25.6	10.31
128	18 May 2018	1	15.85	41.32	9.3	33.62	8.2	24.7	1.33
128	18 May 2018	2	15.85	73.79	9.3	33.64	8.2	24.7	1.35
128	18 May 2018	3	15.85	77.66	9.3	33.65	8.2	24.7	1.53
128	18 May 2018	4	15.81	77.75	9.3	33.65	8.2	24.8	1.75
120	18 May 2018	5	15.38	77.11	9.5	33.67	8.2	24.9	2.19
128	18 May 2018	6	14.84	76.05	9.7	33.66	8.2	24.9	3.22
128	18 May 2018	7	13.55	70.03	9.7	33.66	8.2	25.0	8.02
128	18 May 2018	8	13.43	66.33	9.8	33.61	8.2	25.2	13.72
128	-	9			9.3 8.2		8.1	25.2	
	18 May 2018		12.69	57.15		33.64			23.62
128	18 May 2018	10	12.30	62.14	7.4	33.61	8.1	25.5	25.05
128	18 May 2018	11	12.23	67.11	7.0	33.60	8.0	25.5	24.35
128	18 May 2018	12	12.18	67.38	6.8	33.60	8.0	25.5	21.64
128	18 May 2018	13	12.13	65.19	6.7	33.60	8.0	25.5	18.61
128	18 May 2018	14	11.99	69.55	6.4	33.61	8.0	25.5	15.25
128	18 May 2018	15	11.92	75.68	6.2	33.61	8.0	25.5	10.61
128	18 May 2018	16	11.87	77.35	6.0	33.61	7.9	25.5	6.78
128	18 May 2018	17	11.82	81.65	5.9	33.61	7.9	25.5	5.16
128	18 May 2018	18	11.75	83.58	5.7	33.62	7.9	25.6	3.20
128	18 May 2018	19	11.62	84.96	5.5	33.62	7.9	25.6	2.05
128	18 May 2018	20	11.50	85.76	5.3	33.63	7.9	25.6	1.76
128	18 May 2018	21	11.35	86.01	5.1	33.64	7.9	25.7	1.59
128	18 May 2018	22	11.20	86.92	5.0	33.64	7.9	25.7	1.33
128	18 May 2018	23	11.16	87.35	4.9	33.63	7.8	25.7	1.34
128	18 May 2018	24	11.17	87.46	4.9	33.63	7.8	25.7	1.24
128	18 May 2018	25	11.13	87.42	4.8	33.63	7.8	25.7	1.23
128	18 May 2018	26	11.06	88.07	4.8	33.64	7.8	25.7	0.86
128	18 May 2018	27	11.06	87.70	4.7	33.64	7.8	25.7	0.80
128	18 May 2018	28	10.97	88.65	4.7	33.65	7.8	25.7	0.58
128	18 May 2018	29	10.96	88.74	4.6	33.65	7.8	25.7	0.50
128	18 May 2018	30	10.91	88.76	4.6	33.65	7.8	25.7	0.48
128	18 May 2018	31	10.91	88.74	4.5	33.65	7.8	25.7	0.38
128	18 May 2018	32	10.93	88.70	4.5	33.66	7.8	25.7	0.37
128	18 May 2018	33	10.92	88.65	4.5	33.66	7.8	25.7	0.34
128	18 May 2018	34	10.92	88.68	4.5	33.66	7.8	25.7	0.35
128	18 May 2018	35	10.91	88.70	4.5	33.66	7.8	25.8	0.35
128	18 May 2018	36	10.89	88.72	4.5	33.66	7.8	25.8	0.34

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS (%)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
128	18 May 2018	37	10.88	88.82	4.5	33.66	7.8	25.8	0.35
128	18 May 2018	38	10.81	88.93	4.5	33.66	7.8	25.8	0.35
128	18 May 2018	39	10.76	89.04	4.5	33.66	7.8	25.8	0.38
128	18 May 2018	40	10.73	89.06	4.5	33.67	7.8	25.8	0.51
128	18 May 2018	41	10.72	89.01	4.5	33.67	7.8	25.8	0.44
128	18 May 2018	42	10.71	88.89	4.4	33.67	7.8	25.8	0.44
128	18 May 2018	43	10.72	88.85	4.4	33.67	7.8	25.8	0.47
128	18 May 2018	44	10.70	88.75	4.4	33.67	7.8	25.8	0.41
128	18 May 2018	45	10.69	88.73	4.3	33.67	7.8	25.8	0.38
128	18 May 2018	46	10.67	88.68	4.3	33.68	7.8	25.8	0.38
128	18 May 2018	47	10.67	88.61	4.3	33.68	7.8	25.8	0.46
128	18 May 2018	48	10.66	88.59	4.2	33.68	7.8	25.8	0.49
128	18 May 2018	49	10.66	88.51	4.2	33.69	7.8	25.8	0.47
128	18 May 2018	50	10.65	88.47	4.2	33.69	7.8	25.8	0.48
128	18 May 2018	51	10.64	88.39	4.1	33.70	7.8	25.8	0.50
128	18 May 2018	52	10.61	88.03	4.1	33.70	7.8	25.8	0.54
128	18 May 2018	53	10.58	87.93	4.0	33.71	7.8	25.8	0.51
128	18 May 2018	54	10.51	87.80	3.9	33.72	7.8	25.9	0.49
128	18 May 2018	55	10.50	87.63	3.8	33.72	7.8	25.9	0.45
120	10 may 2010		10.00	01.00	0.0	00.72	1.0	20.0	0.10
129	18 May 2018	1	15.77	79.41	9.4	33.64	8.3	24.8	1.00
129	18 May 2018	2	15.76	79.34	9.4	33.64	8.3	24.8	1.06
129	18 May 2018	3	15.76	79.40	9.4	33.64	8.3	24.8	1.17
129	18 May 2018	4	15.76	79.34	9.4	33.64	8.3	24.8	1.30
129	18 May 2018	5	15.76	79.26	9.4	33.64	8.3	24.8	1.65
129	18 May 2018	6	15.61	77.71	9.4	33.65	8.3	24.8	2.15
129	18 May 2018	7	15.39	77.60	9.4	33.65	8.2	24.8	2.69
129	18 May 2018	8	15.34	77.91	9.6	33.63	8.2	24.8	2.74
129	18 May 2018	9	15.11	77.53	9.5	33.65	8.2	24.0	3.07
129	18 May 2018	10	14.99	76.93	9.6	33.63	8.2	24.9	3.73
129	18 May 2018	11	14.99	76.11	9.5	33.65	8.2	24.9	4.35
129	18 May 2018	12	14.73	74.08	9.2	33.65	8.2	25.0	5.68
129	18 May 2018	12	13.30	74.08	9.2	33.66	8.2	25.3	8.26
129	18 May 2018	13		67.59			8.2	25.3	
129	18 May 2018	14	12.92 12.75	64.88	9.0 8.8	33.63 33.62	8.1	25.3	11.69 16.23
129	18 May 2018	16	12.75	63.92	8.3	33.61	8.1	25.4	
	-								19.36
129	18 May 2018	17	12.53	62.67	7.9	33.62	8.1	25.4	19.37
129	18 May 2018	18	12.16	61.55	7.1	33.62	8.0	25.5 25.5	21.10
129	18 May 2018	19	11.93	68.39	6.3	33.61	8.0	25.5	19.45
129	18 May 2018	20	11.43	71.41	5.4	33.62	7.9	25.6	13.43
129	18 May 2018	21	11.29	78.12	4.9	33.60	7.8	25.6	10.41
129	18 May 2018	22	11.24	79.24	4.7	33.61	7.8	25.6	7.90
129	18 May 2018	23	11.22	80.30	4.6	33.61	7.8	25.7	6.36
129	18 May 2018	24	11.18	77.95	4.6	33.61	7.8	25.7	5.28
129	18 May 2018	25	11.13	80.20	4.6	33.62	7.8	25.7	4.94
129	18 May 2018	26	11.12	81.25	4.5	33.62	7.8	25.7	4.63
129	18 May 2018	27	11.07	80.79	4.4	33.63	7.8	25.7	4.28
129	18 May 2018	28	11.05	81.42	4.3	33.64	7.8	25.7	4.71
129	18 May 2018	29	11.01	81.45	4.3	33.65	7.8	25.7	3.99
129	18 May 2018	30	10.96	81.38	4.2	33.65	7.8	25.7	3.43
129	18 May 2018	31	10.95	83.16	4.3	33.66	7.8	25.7	3.51
129	18 May 2018	32	10.94	83.01	4.2	33.66	7.8	25.7	3.26
129	18 May 2018	33	10.93	82.82	4.2	33.66	7.8	25.7	3.60
129	18 May 2018	34	10.82	82.12	4.1	33.68	7.8	25.8	2.92
129	18 May 2018	35	10.72	82.23	4.0	33.69	7.8	25.8	2.37

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS (%)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
129	18 May 2018	36	10.71	81.64	4.0	33.69	7.8	25.8	2.06
129	18 May 2018	37	10.72	81.41	4.0	33.69	7.8	25.8	2.27
129	18 May 2018	38	10.73	81.54	4.0	33.69	7.8	25.8	2.33
13	15 May 2018	1	15.64	81.28	9.6	33.62	8.3	24.8	0.65
13	-	2	15.64	82.38	9.5	33.63	8.3	24.8	0.64
13	15 May 2018 15 May 2018	3	15.64	82.50	9.5		8.3	24.8	0.04
13	15 May 2018 15 May 2018	4	15.63	82.30	9.6	33.63 33.63	8.3	24.8	0.75
13	15 May 2018	5	15.63	82.30	9.6	33.63	8.3	24.8	0.78
13	15 May 2018	6	15.63	82.52	9.6	33.63	8.3	24.8	0.82
13	15 May 2018	7	15.63	82.32	9.5	33.63	8.3	24.8	1.00
13	15 May 2018	8	15.62	82.50	9.6	33.63	8.3	24.8	1.09
13	15 May 2018 15 May 2018	9	15.61	82.50	9.5	33.63	8.3	24.8	1.09
13	15 May 2018 15 May 2018	10	15.60	82.65	9.5	33.63	8.2	24.8	1.07
13	15 May 2018 15 May 2018	10	15.55	82.65	9.5		8.2	24.8	1.24
13	15 May 2018 15 May 2018	12	15.55	83.13	9.4	33.63 33.63	0.2 8.2	24.0	1.20
13	15 May 2018 15 May 2018	12	14.83	83.19	9.3		0.2 8.2	24.9	1.18
13	15 May 2018 15 May 2018	13	14.65	82.41	9.2	33.59 33.63	0.2 8.2	24.9	1.19
13	15 May 2018 15 May 2018	14	12.70	79.40	9.2		8.2	25.2	4.24
13	15 May 2018 15 May 2018	15	12.70	79.40	9.7	33.56	0.2 8.2	25.3	4.24 6.35
					9.6	33.54	0.2 8.2	25.3	
13	15 May 2018	17	12.32	69.43		33.55			17.78
13	15 May 2018	18	12.16	60.76	8.0	33.55	8.1	25.4	33.25
13	15 May 2018	19	11.98	55.10	7.0	33.57	8.0	25.5	33.71
13	15 May 2018	20	11.93	58.48	6.5	33.57	8.0	25.5	30.79
13	15 May 2018	21	11.92	62.59	6.3	33.58	8.0	25.5	31.81
13	15 May 2018	22	11.89	59.43	6.2	33.58	8.0	25.5	29.58
13	15 May 2018	23	11.87	62.40	6.2	33.58	7.9	25.5	29.55
13	15 May 2018	24	11.86	61.18	6.1	33.58	7.9	25.5	27.74
13	15 May 2018	25	11.86	63.60	6.1	33.58	7.9	25.5	28.60
13	15 May 2018	26	11.86	63.16	6.1	33.58	7.9	25.5	29.74
13	15 May 2018	27	11.86	57.50	6.1	33.58	7.9	25.5	27.37
130	18 May 2018	1	15.82	77.18	9.4	33.65	8.3	24.7	1.12
130	18 May 2018	2	15.82	70.35	9.4	33.64	8.3	24.7	1.16
130	18 May 2018	3	15.82	74.20	9.3	33.65	8.3	24.7	1.30
130	18 May 2018	4	15.81	78.17	9.3	33.65	8.3	24.7	1.51
130	18 May 2018	5	15.81	78.84	9.4	33.65	8.3	24.7	1.80
130	18 May 2018	6	15.64	78.14	9.4	33.65	8.3	24.8	2.18
130	18 May 2018	7	15.37	77.70	9.6	33.64	8.2	24.8	2.80
130	18 May 2018	8	15.08	76.83	9.6	33.64	8.2	24.9	3.59
130	18 May 2018	9	14.70	76.69	9.7	33.63	8.2	25.0	3.78
130	18 May 2018	10	14.52	76.35	9.6	33.63	8.2	25.0	4.35
130	18 May 2018	11	13.97	76.00	9.7	33.63	8.2	25.1	5.22
130	18 May 2018	12	13.58	75.06	9.6	33.62	8.2	25.2	5.86
130	18 May 2018	13	13.35	74.18	9.3	33.60	8.2	25.2	7.02
130	18 May 2018	14	13.22	73.51	9.0	33.60	8.2	25.2	10.67
130	18 May 2018	15	12.73	67.51	8.3	33.61	8.1	25.4	17.74
130	18 May 2018	16	12.34	65.35	7.3	33.59	8.0	25.4	23.02
130	18 May 2018	17	11.89	62.84	6.4	33.59	8.0	25.5	22.81
130	18 May 2018	18	11.79	65.98	6.0	33.58	7.9	25.5	20.60
130	18 May 2018	19	11.72	64.67	5.7	33.59	7.9	25.5	21.36
130	18 May 2018	20	11.69	66.75	5.5	33.59	7.9	25.5	21.64
130	18 May 2018	21	11.64	69.40	5.3	33.59	7.9	25.6	19.23
130	18 May 2018	22	11.60	68.22	5.2	33.59	7.9	25.6	16.35
130	18 May 2018	23	11.42	64.70	4.9	33.60	7.9	25.6	14.80

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
130	18 May 2018	24	11.29	73.05	4.8	33.60	7.8	25.6	12.58
130	18 May 2018	25	11.31	72.06	4.6	33.60	7.8	25.6	11.04
130	18 May 2018	26	11.26	75.21	4.5	33.61	7.8	25.6	7.93
130	18 May 2018	27	11.27	73.42	4.4	33.61	7.8	25.6	8.55
130	18 May 2018	28	11.27	69.97	4.4	33.61	7.8	25.6	8.91
104	40 Mar 0040		45.00	74.00	0.0	00.00		04.0	4.05
131	18 May 2018	1	15.60	74.28	9.3	33.66	8.2	24.8	1.35
131	18 May 2018	2	15.60	74.96	9.3	33.66	8.2	24.8	1.35
131	18 May 2018	3	15.58	75.29	9.3	33.66	8.2	24.8	1.65
131	18 May 2018	4	15.58	75.14	9.3	33.66	8.2	24.8	2.11
131	18 May 2018	5	15.58	74.99	9.3	33.66	8.2	24.8	2.33
131	18 May 2018	6	15.57	74.98	9.3	33.66	8.2	24.8	2.54
131	18 May 2018	7	15.56	74.96	9.3	33.66	8.2	24.8	2.81
131	18 May 2018	8	15.54	74.74	9.3	33.66	8.2	24.8	2.98
131	18 May 2018	9	15.36	74.60	9.2	33.66	8.2	24.9	3.24
131	18 May 2018	10	14.25	74.99	9.4	33.69	8.2	25.1	3.97
131	18 May 2018	11	13.23	74.70	9.6	33.60	8.2	25.3	5.01
131	18 May 2018	12	13.23	74.47	9.3	33.60	8.2	25.3	5.04
131	18 May 2018	13	13.15	73.65	8.8	33.61	8.1	25.3	5.17
131	18 May 2018	14	12.95	71.91	8.3	33.62	8.1	25.3	6.31
131	18 May 2018	15	12.63	70.76	8.2	33.61	8.1	25.4	8.46
131	18 May 2018	16	12.57	68.67	7.9	33.60	8.1	25.4	10.17
131	18 May 2018	17	12.14	64.28	7.0	33.62	8.0	25.5	14.41
131	18 May 2018	18	11.90	66.24	6.1	33.61	7.9	25.5	13.43
I31	18 May 2018	19	11.86	60.67	5.6	33.60	7.9	25.5	15.13
100	40.00			== 10					o / =
133	18 May 2018	1	15.40	75.48	9.1	33.65	8.2	24.8	2.45
133	18 May 2018	2	15.40	76.41	9.2	33.65	8.2	24.8	2.53
133	18 May 2018	3	15.40	76.86	9.2	33.65	8.2	24.8	2.82
133	18 May 2018	4	15.39	76.60	9.1	33.65	8.2	24.8	3.02
133	18 May 2018	5	15.35	76.59	9.2	33.65	8.2	24.9	3.25
133	18 May 2018	6	15.35	76.93	9.2	33.65	8.2	24.9	3.49
133	18 May 2018	7	15.34	76.40	9.2	33.65	8.2	24.9	3.48
133	18 May 2018	8	15.32	76.44	9.2	33.65	8.2	24.9	3.49
133	18 May 2018	9	15.28	76.15	9.2	33.65	8.2	24.9	3.85
133	18 May 2018	10	15.25	75.78	9.1	33.65	8.2	24.9	3.88
133	18 May 2018	11	15.16	75.59	9.1	33.65	8.2	24.9	4.33
133	18 May 2018	12	14.97	73.93	9.0	33.66	8.2	24.9	4.59
133	18 May 2018	13	14.67	71.56	8.8	33.65	8.2	25.0	4.99
133	18 May 2018	14	14.67	71.04	8.7	33.65	8.2	25.0	5.30
133	18 May 2018	15	14.57	70.09	8.4	33.66	8.2	25.0	5.63
133	18 May 2018	16	14.27	68.85	8.2	33.66	8.1	25.1	6.40
133	18 May 2018	17	13.55	66.41	8.1	33.67	8.1	25.2	9.84
133	18 May 2018	18	12.79	62.25	7.8	33.63	8.1	25.4	16.24
133	18 May 2018	19	12.41	60.17	7.3	33.61	8.0	25.4	21.77
133	18 May 2018	20	12.11	58.00	6.7	33.61	8.0	25.5	21.40
133	18 May 2018	21	11.81	60.22	6.2	33.60	7.9	25.5	21.20
133	18 May 2018	22	11.81	62.81	6.0	33.59	7.9	25.5	21.38
133	18 May 2018	23	11.80	64.68	5.9	33.60	7.9	25.5	19.27
133	18 May 2018	24	11.67	66.03	5.6	33.61	7.9	25.6	16.15
133	18 May 2018	25	11.51	71.47	5.1	33.60	7.8	25.6	13.61
133	18 May 2018	26	11.41	69.42	4.9	33.61	7.8	25.6	11.00
133	18 May 2018	27	11.34	74.10	4.8	33.62	7.8	25.6	9.93
133	18 May 2018	28	11.37	73.23	4.7	33.61	7.8	25.6	9.35
133	18 May 2018	29	11.33	72.60	4.6	33.62	7.8	25.6	9.17

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
133	18 May 2018	30	11.34	71.63	4.6	33.62	7.8	25.6	9.56
134	18 May 2018	1	14.78	66.51	8.3	33.67	8.1	25.0	3.91
134	18 May 2018	2	14.77	66.22	8.2	33.67	8.1	25.0	4.41
134	18 May 2018	3	14.61	65.03	8.1	33.68	8.1	25.0	5.46
134	18 May 2018	4	14.39	63.58	8.1	33.67	8.1	25.1	6.72
134	18 May 2018	5	14.35	64.26	8.1	33.66	8.1	25.1	7.71
134	18 May 2018	6	14.33	64.97	8.1	33.66	8.1	25.1	7.89
134	18 May 2018	7	14.17	64.65	8.0	33.66	8.1	25.1	7.99
134	18 May 2018	8	14.06	64.77	8.0	33.66	8.1	25.1	7.88
134	18 May 2018	9	14.05	65.15	7.9	33.65	8.1	25.1	7.81
134	18 May 2018	10	14.04	64.99	7.9	33.65	8.1	25.1	7.76
134	18 May 2018	11	14.01	65.48	7.9	33.65	8.1	25.1	7.46
134	18 May 2018	12	13.99	65.62	8.0	33.65	8.1	25.1	7.37
134	18 May 2018	13	13.96	65.88	8.0	33.65	8.1	25.1	6.83
134	18 May 2018	14	13.94	66.35	8.0	33.65	8.1	25.2	6.80
134	18 May 2018	15	13.83	66.87	7.8	33.65	8.1	25.2	6.75
134	18 May 2018	16	13.52	67.51	7.4	33.65	8.1	25.2	6.73
134	18 May 2018	17	12.30	66.08	6.6	33.66	8.0	25.5	9.39
134	18 May 2018	18	11.92	60.37	5.8	33.61	7.9	25.5	13.19
134	18 May 2018	19	11.84	49.54	5.5	33.59	7.9	25.5	17.27
	, , ,								
135	18 May 2018	1	15.31	74.67	9.3	33.65	8.2	24.9	1.54
135	18 May 2018	2	15.32	74.64	9.3	33.65	8.2	24.9	1.50
135	18 May 2018	3	15.29	74.44	9.3	33.65	8.2	24.9	1.96
135	18 May 2018	4	15.28	74.64	9.3	33.65	8.2	24.9	2.43
135	18 May 2018	5	15.26	74.85	9.3	33.65	8.2	24.9	2.80
135	18 May 2018	6	15.25	74.87	9.3	33.65	8.2	24.9	2.93
135	18 May 2018	7	15.24	74.96	9.3	33.65	8.2	24.9	2.98
135	18 May 2018	8	15.23	75.36	9.3	33.65	8.2	24.9	3.21
135	18 May 2018	9	14.84	72.63	9.3	33.66	8.2	25.0	4.14
135	18 May 2018	10	14.62	72.25	9.4	33.64	8.2	25.0	5.10
135	18 May 2018	11	14.60	72.75	9.4	33.64	8.2	25.0	5.25
135	18 May 2018	12	14.14	73.24	9.2	33.65	8.2	25.1	5.56
135	18 May 2018	13	13.19	73.28	9.2	33.62	8.2	25.3	6.34
135	18 May 2018	14	12.83	72.89	8.9	33.61	8.2	25.3	7.20
135	18 May 2018	15	12.50	70.99	8.5	33.60	8.1	25.4	10.99
135	18 May 2018	16	12.40	65.35	8.1	33.59	8.1	25.4	14.99
135	18 May 2018	17	12.09	56.82	7.3	33.60	8.0	25.5	23.90
135	18 May 2018	18	11.97	61.65	6.7	33.60	8.0	25.5	20.32
135	18 May 2018	19	11.94	59.31	6.3	33.60	8.0	25.5	19.85
			11.04	00.01	0.0	00.00	0.0		
136	18 May 2018	1	16.14	69.42	9.2	33.67	8.2	24.7	2.59
136	18 May 2018	2	16.14	69.14	9.2	33.67	8.2	24.7	2.73
136	18 May 2018	3	16.14	69.37	9.2	33.67	8.2	24.7	2.93
136	18 May 2018	4	15.95	69.60	9.2	33.67	8.2	24.7	3.25
136	18 May 2018	5	15.87	71.20	9.1	33.67	8.2	24.8	3.47
136	18 May 2018	6	15.34	71.20	8.8	33.68	8.2	24.9	4.50
136	18 May 2018	7	14.15	65.62	8.8	33.68	8.2	24.3	5.80
136	18 May 2018	8	13.52	63.16	9.0	33.63	8.2	25.2	5.57
136	18 May 2018	9	13.44	68.24	9.0 8.7	33.61	8.2	25.2	5.19
136	18 May 2018	9 10	13.44	63.33	8.1	33.62	8.1	25.2	5.54
136	18 May 2018	10	13.02	57.38	8.0	33.61	8.1	25.3	5.61
150	10 IVIAY 2010	11	10.02	57.50	0.0	55.01	0.1	20.0	5.01
137	18 May 2018	1	15.52	70.51	8.9	33.67	8.2	24.8	2.30
157	10 May 2010	I	10.02	10.01	0.9	55.07	0.2	24.0	2.30

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
137	18 May 2018	2	15.36	69.74	8.8	33.68	8.2	24.9	2.80
137	18 May 2018	3	15.09	66.78	8.8	33.66	8.2	24.9	4.20
137	18 May 2018	4	15.00	68.86	8.7	33.66	8.2	24.9	5.20
137	18 May 2018	5	14.53	70.74	8.5	33.67	8.2	25.1	5.98
137	18 May 2018	6	14.23	70.48	8.3	33.66	8.2	25.1	7.12
137	18 May 2018	7	13.96	69.35	8.0	33.66	8.1	25.2	7.41
137	18 May 2018	8	13.66	67.97	7.6	33.66	8.1	25.2	8.59
137	18 May 2018	9	13.19	66.59	7.5	33.66	8.1	25.3	9.35
137	18 May 2018	10	12.85	65.17	7.7	33.62	8.1	25.4	10.25
137	18 May 2018	11	12.84	65.60	7.9	33.61	8.1	25.3	11.18
137	18 May 2018	12	12.63	63.43	7.9	33.61	8.1	25.4	12.17
	10 110 2010								
138	18 May 2018	1	15.65	72.94	9.3	33.67	8.2	24.8	1.58
138	18 May 2018	2	15.65	73.11	9.3	33.67	8.2	24.8	1.63
138	18 May 2018	3	15.63	73.29	9.3	33.66	8.2	24.8	2.06
138	18 May 2018	4	15.64	73.31	9.3	33.66	8.2	24.8	2.38
138	18 May 2018	5	15.65	73.44	9.3	33.67	8.2	24.8	2.53
138	18 May 2018	6	15.61	73.56	9.2	33.67	8.2	24.8	2.84
138	18 May 2018	7	15.39	73.74	9.0	33.67	8.2	24.9	3.41
138	18 May 2018	8	14.29	71.75	9.2	33.66	8.2	25.1	4.24
138	18 May 2018	9	14.29	69.51	9.2	33.63	8.2	25.1	4.65
	-				9.0 8.7			25.1	4.05
138	18 May 2018	10	13.37	66.71		33.63	8.2		
138	18 May 2018	11	13.21	68.06	8.4	33.62	8.1	25.3	4.02
14	15 May 2018	1	15.37	74.37	9.4	33.62	8.2	24.8	1.10
14	15 May 2018	2	15.36	75.34	9.4	33.63	8.2	24.8	1.14
14	15 May 2018	3	15.35	75.26	9.4	33.63	8.2	24.8	1.33
14	15 May 2018	4	15.30	75.49	9.3	33.63	8.2	24.9	1.60
14	15 May 2018	5	14.78	77.17	9.3	33.64	8.2	25.0	1.93
14	15 May 2018	6	14.03	77.47	9.5	33.61	8.2	25.1	2.93
14	15 May 2018	7	13.67	75.10	9.6	33.60	8.2	25.2	4.56
14	15 May 2018	8	13.40	73.25	9.6	33.60	8.2	25.2	6.81
14	15 May 2018	9	13.31	72.85	9.5	33.60	8.2	25.2	9.31
14	15 May 2018	10	13.18	69.46	9.2	33.60	8.2	25.3	10.60
14	15 May 2018	11	13.07	68.58	9.1	33.60	8.2	25.3	13.35
14	15 May 2018	12	13.04	68.72	9.0	33.60	8.2	25.3	14.45
14	15 May 2018	13	12.99	66.35	8.9	33.60	8.1	25.3	15.62
14	15 May 2018	14	12.97	67.60	8.9	33.60	8.1	25.3	15.86
14	15 May 2018	15	12.96	66.73	8.8	33.60	8.1	25.3	15.49
14	15 May 2018	16	12.90	66.97	8.8	33.60	8.1	25.3	16.62
14	15 May 2018	17	12.95	66.69	8.8	33.60	8.1	25.3	16.16
14	15 May 2018 15 May 2018	17	12.95	64.41	8.8	33.60	8.1	25.3	
14	15 Way 2016	10	12.95	04.41	0.0	33.00	0.1	25.5	14.01
15	15 May 2018	1	14.73	74.07	6.8	33.62	8.2	25.0	0.59
15	15 May 2018	2	14.74	74.40	7.7	33.62	8.2	25.0	0.74
15	15 May 2018	3	14.55	74.05	8.8	33.75	8.2	25.1	0.72
15	15 May 2018	4	14.01	72.94	9.4	33.85	8.2	25.3	0.77
15	15 May 2018	5	13.77	73.11	9.5	33.72	8.2	25.2	0.81
15	15 May 2018	6	13.72	73.49	9.8	33.68	8.2	25.2	0.88
15	15 May 2018	7	13.62	73.02	9.7	33.65	8.2	25.2	2.45
15	15 May 2018	8	13.56	73.40	9.5	33.64	8.2	25.2	3.56
15	15 May 2018	9	13.53	72.63	9.5	33.64	8.2	25.2	2.25
15	15 May 2018	10	13.45	69.40	9.4	33.64	8.2	25.2	8.59
15	15 May 2018 15 May 2018	11	13.45	67.77	9.4	33.63	8.2	25.2	8.36
15	15 May 2018 15 May 2018	12	13.42	66.30	9.3	33.62	8.2	25.2	8.09
CI	15 May 2018	12	13.42	00.30	9.0	33.02	0.2	23.2	0.09

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
15	15 May 2018	13	13.41	64.97	8.8	33.64	8.2	25.3	6.66
15	15 May 2018	14	13.41	62.57	8.7	33.66	8.2	25.3	9.27
16	15 May 2018	1	15.90	77.15	9.4	33.65	8.2	24.7	0.82
16	15 May 2018	2	15.90	77.39	9.4	33.65	8.2	24.7	0.80
16	15 May 2018	3	15.86	77.13	9.5	33.65	8.2	24.7	0.89
16	15 May 2018	4	15.84	77.23	9.5	33.64	8.2	24.7	1.07
16	15 May 2018	5	15.82	76.99	9.4	33.65	8.2	24.7	1.18
16	15 May 2018	6	15.79	77.22	9.5	33.64	8.2	24.8	1.40
16	15 May 2018	7	15.79	77.64	9.5	33.64	8.2	24.8	1.53
16	15 May 2018	8	15.72	78.19	9.5	33.64	8.2	24.8	1.69
16	15 May 2018	9	15.64	79.25	9.5	33.63	8.2	24.8	1.78
16	15 May 2018	10	15.37	80.73	9.4	33.63	8.2	24.8	1.90
16	15 May 2018	11	14.84	81.33	9.6	33.61	8.2	24.9	2.15
16	15 May 2018	12	14.63	80.87	9.4	33.60	8.2	25.0	2.70
16	15 May 2018	13	13.88	79.31	9.4	33.60	8.2	25.1	3.93
16	15 May 2018	14	13.18	78.57	9.5	33.59	8.2	25.3	4.82
16	15 May 2018	15	13.02	77.71	9.6	33.55	8.2	25.3	6.21
16	15 May 2018	16	12.80	72.88	9.4	33.57	8.2	25.3	10.24
16	15 May 2018	17	12.50	68.12	9.1	33.57	8.2	25.4	18.13
16	15 May 2018	18	12.39	66.16	8.7	33.57	8.1	25.4	25.73
16	15 May 2018	19	12.33	61.24	8.3	33.58	8.1	25.4	29.32
16	15 May 2018	20	12.27	59.43	8.0	33.58	8.1	25.4	29.87
16	15 May 2018	21	12.27	63.01	7.9	33.59	8.1	25.4	27.27
16	15 May 2018	22	12.24	57.90	7.8	33.59	8.1	25.4	26.72
16	15 May 2018	23	12.25	61.59	7.8	33.59	8.1	25.4	26.34
16	15 May 2018	24	12.23	59.74	7.7	33.60	8.1	25.5	25.02
16	15 May 2018	25	12.22	60.75	7.7	33.60	8.1	25.5	26.66
16	15 May 2018	26	12.22	60.83	7.6	33.60	8.1	25.5	27.89
17	15 May 2019	1	15 60	75 71	9.6	22.65	0.2	24.8	1.96
17	15 May 2018 15 May 2018	1	15.69	75.71	9.6	33.65	8.2 8.2	24.8	
17	15 May 2018 15 May 2018	2 3	15.68	75.59	9.6	33.65	0.2 8.2	24.8	2.18
17	15 May 2018 15 May 2018	4	15.66	75.72	9.6	33.65	0.2 8.2	24.8	2.53
17	15 May 2018	5	15.51 14.48	75.51 73.26	9.4	33.66 33.68	0.2 8.2	24.0	3.46 6.08
17	15 May 2018	6			9.5		0.2 8.2	25.1	
			13.94	71.43		33.65			10.88
17	15 May 2018	7	13.37	67.79	9.2	33.65	8.2	25.3	15.57
17 17	15 May 2018	8	12.96	63.47	8.8	33.63	8.1	25.3	19.56
17	15 May 2018	9	12.82	64.14 64.20	8.6 8.3	33.62	8.1 9.1	25.4	25.48
17	15 May 2018	10	12.79	64.20	8.3	33.62	8.1	25.4	25.61
17	15 May 2018	11	12.77	65.50	8.2	33.62	8.1	25.4	26.57
	15 May 2018	12	12.56	62.25	7.9	33.64	8.1	25.4	20.57
17 17	15 May 2018	13	12.42	64.84	7.6	33.63	8.0	25.4	21.34
	15 May 2018	14	12.38	65.78 60.17	7.4	33.63	8.0	25.5 25.5	22.32
17	15 May 2018	15	12.21	69.17	7.1	33.64	8.0	25.5	19.91
17	15 May 2018	16	12.01	67.64	6.7	33.63	8.0	25.5	14.41
17	15 May 2018	17	11.98	70.27	6.6	33.63	8.0	25.5	13.55
17	15 May 2018	18	11.92	72.30	6.5	33.63	8.0	25.5	15.30
17 17	15 May 2018	19	11.90	73.49	6.4 6.2	33.63	8.0	25.5	13.71
17	15 May 2018	20	11.84	72.82		33.64	8.0	25.6	11.77
17	15 May 2018	21 22	11.79 11.76	74.31 75.00	6.1 5.9	33.64	7.9 7.9	25.6 25.6	12.54 9.35
17	15 May 2018 15 May 2018	22	11.76 11.73	75.00 75.02	5.9 5.8	33.63 33.63	7.9	25.6 25.6	9.35 8.67
17	15 May 2018 15 May 2018	23	11.73	75.02 75.87	5.8	33.63	7.9	25.6 25.6	9.20
17									
17	15 May 2018	25	11.63	76.71	5.5	33.63	7.9	25.6	7.62

Station	Date	Depth (m)	Temp ($^{\circ}$ C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	рН	Dens (σ-t)	Chlor (µg/L)
17	15 May 2018	26	11.57	78.38	5.3	33.63	7.9	25.6	5.72
17	15 May 2018	27	11.46	79.04	5.1	33.63	7.9	25.6	4.92
17	15 May 2018	28	11.29	80.92	4.9	33.63	7.8	25.7	4.22
17	15 May 2018	29	11.24	84.28	4.8	33.62	7.8	25.7	3.13
17	15 May 2018	30	11.20	84.57	4.7	33.63	7.8	25.7	2.54
17	15 May 2018	31	11.15	84.93	4.7	33.63	7.8	25.7	2.58
17	15 May 2018	32	11.16	84.22	4.8	33.63	7.8	25.7	2.83
17	15 May 2018	33	11.11	81.78	5.0	33.65	7.8	25.7	3.99
17	15 May 2018	34	11.07	84.24	5.0	33.66	7.8	25.7	3.21
17	15 May 2018	35	11.01	86.08	4.8	33.66	7.8	25.7	2.10
17	15 May 2018	36	11.01	86.34	4.8	33.66	7.8	25.7	1.55
17	15 May 2018	37	11.01	86.40	4.8	33.66	7.8	25.7	1.71
17	15 May 2018	38	11.01	86.48	4.7	33.66	7.8	25.7	1.49
17	15 May 2018	39	10.99	86.56	4.7	33.67	7.8	25.7	1.44
17	15 May 2018	40	10.99	86.47	4.7	33.67	7.8	25.7	1.51
17	15 May 2018	41	10.94	86.59	4.7	33.67	7.8	25.7	1.36
17	15 May 2018	42	10.91	87.49	4.7	33.66	7.8	25.8	1.00
17	15 May 2018	43	10.88	88.11	4.7	33.67	7.8	25.8	0.78
17	15 May 2018	44	10.86	87.45	4.6	33.67	7.8	25.8	0.96
17	15 May 2018	45	10.85	87.14	4.6	33.67	7.8	25.8	1.04
17	15 May 2018	46	10.83	87.10	4.6	33.67	7.8	25.8	1.15
17	15 May 2018	47	10.82	87.14	4.6	33.67	7.8	25.8	1.25
17	15 May 2018	48	10.77	87.44	4.5	33.67	7.8	25.8	1.04
17	15 May 2018	49	10.75	87.37	4.4	33.67	7.8	25.8	1.03
17	15 May 2018	50	10.71	86.91	4.3	33.68	7.8	25.8	1.60
17	15 May 2018	51	10.70	86.12	4.2	33.69	7.8	25.8	1.56
17	15 May 2018	52	10.68	85.88	4.2	33.69	7.8	25.8	1.33
18	15 May 2018	1	15.86	83.67	9.3	33.63	8.2	24.7	0.28
18	15 May 2018	2	15.85	83.63	9.3	33.63	8.2	24.7	0.23
18	15 May 2018	3	15.81	83.69	9.3	33.63	8.2	24.7	0.25
18	15 May 2018	4	15.76	83.78	9.3	33.63	8.2	24.7	0.29
18	15 May 2018	5	15.65	83.87	9.4	33.63	8.2	24.8	0.26
18	15 May 2018	6	15.58	83.97	9.4	33.63	8.2	24.8	0.28
18	15 May 2018	7	15.51	84.13	9.4	33.63	8.2	24.8	0.31
18	15 May 2018	8	15.47	84.11	9.4	33.62	8.2	24.8	0.31
18	15 May 2018	9	15.44	84.02	9.4	33.62	8.2	24.8	0.32
18	15 May 2018	10	15.32	83.57	9.5	33.62	8.2	24.8	0.37
18	15 May 2018	11	15.17	82.99	9.4	33.62	8.2	24.9	0.51
18	15 May 2018	12	14.48	81.55	9.5	33.64	8.2	25.0	0.84
18	15 May 2018	13	13.55	78.99	9.9	33.62	8.2	25.2	2.03
18	15 May 2018	14	13.16	73.91	9.6	33.60	8.2	25.3	7.17
18	15 May 2018	15	12.39	54.13	8.7	33.60	8.2	25.4	27.09
18	15 May 2018	16	11.87	55.61	7.6	33.59	8.1	25.5	33.60
18	15 May 2018	17	11.77	66.62	6.8	33.57	8.0	25.5	34.98
18	15 May 2018	18	11.61	63.57	6.1	33.58	8.0	25.6	29.91
18	15 May 2018	19	11.56	62.76	5.8	33.58	7.9	25.6	26.22
18	15 May 2018	20	11.52	65.39	5.6	33.58	7.9	25.6	22.57
18	15 May 2018	21	11.41	69.27	5.4	33.58	7.9	25.6	18.87
18	15 May 2018	22	11.38	75.23	5.3	33.59	7.9	25.6	15.52
18	15 May 2018	23	11.37	73.59	5.2	33.59	7.9	25.6	13.10
18	15 May 2018	24	11.37	74.05	5.2	33.59	7.9	25.6	13.30
18	15 May 2018	25	11.37	76.07	5.1	33.59	7.9	25.6	12.31
18	15 May 2018	26	11.37	74.23	5.1	33.59	7.9	25.6	11.68
18	15 May 2018	27	11.37	72.74	5.1	33.59	7.9	25.6	12.00

Station	Date	Depth (m)	Temp (°C)	XMS ($\%$)	DO (mg/L)	Sal (ppt)	pН	Dens (σ-t)	Chlor (µg/L)
18	15 May 2018	28	11.37	72.98	5.0	33.60	7.9	25.6	13.59
18	15 May 2018	29	11.37	74.16	5.0	33.60	7.9	25.6	13.24
18	15 May 2018	30	11.32	71.33	4.9	33.61	7.9	25.6	12.29
18	15 May 2018	31	11.27	75.28	4.9	33.61	7.9	25.6	11.70
18	15 May 2018	32	11.24	76.74	4.9	33.61	7.9	25.7	9.19
18	15 May 2018	33	11.22	77.25	4.9	33.61	7.9	25.7	9.24
18	15 May 2018	34	11.20	77.71	4.8	33.61	7.8	25.7	9.13
18	15 May 2018	35	11.18	76.80	4.8	33.61	7.8	25.7	7.11
18	15 May 2018	36	11.17	75.84	4.8	33.61	7.8	25.7	7.56
19	15 May 2018	1	16.19	78.27	9.5	33.65	8.3	24.7	0.56
19	15 May 2018	2	16.21	78.61	9.5	33.65	8.3	24.7	0.53
19	15 May 2018	3	16.20	78.50	9.4	33.65	8.3	24.7	0.53
19	15 May 2018	4	16.14	78.43	9.5	33.65	8.3	24.7	0.62
19	15 May 2018	5	16.03	78.42	9.5	33.66	8.3	24.7	0.71
19	15 May 2018	6	15.80	79.22	9.6	33.64	8.3	24.7	0.89
19	15 May 2018	7	15.72	80.89	9.5	33.63	8.3	24.8	0.93
19	15 May 2018	8	15.43	82.99	9.5	33.63	8.3	24.8	0.75
19	15 May 2018	9	15.17	83.47	9.5	33.62	8.2	24.9	0.67
19	15 May 2018	10	14.88	82.96	9.4	33.61	8.2	24.9	0.79
19	15 May 2018	11	13.68	78.44	9.6	33.65	8.2	25.2	2.40
19	15 May 2018	12	13.09	74.78	9.6	33.57	8.2	25.3	4.62
19	15 May 2018	13	12.52	67.40	9.4	33.58	8.2	25.4	10.15
19	15 May 2018	14	12.35	64.57	9.0	33.55	8.1	25.4	21.70
19	15 May 2018	15	12.23	56.86	8.3	33.59	8.1	25.4	30.78
19	15 May 2018	16	12.20	63.39	8.0	33.59	8.1	25.5	34.17
19	15 May 2018	17	12.16	62.91	7.8	33.59	8.1	25.5	33.32
19	15 May 2018	18	12.14	53.59	7.7	33.59	8.1	25.5	29.29
19	15 May 2018	19	12.14	58.87	7.7	33.59	8.1	25.5	31.87
19	15 May 2018	20	12.14	61.11	7.6	33.59	8.1	25.5	30.65
19	15 May 2018	21	12.09	61.27	7.4	33.60	8.0	25.5	31.96
19	15 May 2018	22	12.07	57.43	7.3	33.60	8.0	25.5	29.10
19	15 May 2018	23	12.00	59.19	7.1	33.60	8.0	25.5	30.75
19	15 May 2018	24	11.99	62.10	6.9	33.60	8.0	25.5	32.62
19	15 May 2018	25	11.94	51.71	6.8	33.60	8.0	25.5	31.40
19	15 May 2018	26	11.91	57.29	6.6	33.59	8.0	25.5	31.06
19	15 May 2018	27	11.86	61.76	6.3	33.60	8.0	25.5	29.97
19	15 May 2018	28	11.74	56.71	6.0	33.59	7.9	25.5	26.73
19	15 May 2018	29	11.71	60.78	5.7	33.59	7.9	25.6	26.35

NA = not available

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APPENDIX A

Quality Assurance

Table A.1

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

Station	Date	Depth	Analyst	Procedure	Total	Fecal	Entero
13	15 May 2018	18	JT	LAB DUPLICATE	ns	<2	<2
13	15 May 2018	18	ZV	LAB DUPLICATE	<2	ns	ns
18	15 May 2018	37	JT	LAB DUPLICATE	ns	<2	<2
18	15 May 2018	37	ZV	LAB DUPLICATE	<2	ns	ns
19	15 May 2018	27	ZV	LAB DUPLICATE	<20	2e	<2
112	17 May 2018	18	AR	LAB DUPLICATE	<20	2e	<2
113	17 May 2018	18	AR	LAB DUPLICATE	<2	<2	<2
14	17 May 2018	2	AR	LAB DUPLICATE	<2	<2	<2
116	17 May 2018	18	JT	LAB DUPLICATE	20e	<2	<2
119	07 May 2018	6	JT	LAB DUPLICATE	<2	<2	<2
119	14 May 2018	6	ZV	LAB DUPLICATE	<20	<2	<2
119	21 May 2018	6	JT	LAB DUPLICATE	<20	<2	<2
119	29 May 2018	6	LMA	LAB DUPLICATE	<20	<2	<2
120	17 May 2018	55	AE	LAB DUPLICATE	<2	<2	<2
130	18 May 2018	27	LMA	LAB DUPLICATE	<2	<2	<2
136	18 May 2018	11	LMA	FIELD DUPLICATE	<2	<2	<2
136	18 May 2018	11	LMA	LAB DUPLICATE	2e	<2	<2
I40	07 May 2018	6	JT	LAB DUPLICATE	<2	<2	<2
I40	14 May 2018	6	JT	LAB DUPLICATE	<2	<2	<2
I40	21 May 2018	6	JT	LAB DUPLICATE	<2	<2	<2
I40	29 May 2018	6	ZV	LAB DUPLICATE	<2	<2	<2
S12	01 May 2018		AE	FIELD DUPLICATE	<2	<2	<2
S12	01 May 2018		AE	LAB DUPLICATE	4e	<2	<2
S12	08 May 2018		AE	FIELD DUPLICATE	6e	<20	<2
S12	08 May 2018		AE	LAB DUPLICATE	2e	2e	<2
S12	15 May 2018		AR	FIELD DUPLICATE	<20	2e	<2
S12	15 May 2018		AR	LAB DUPLICATE	40e	4e	ns
S12	22 May 2018		AR	FIELD DUPLICATE	<20	2e	<2
S12	22 May 2018		AR	LAB DUPLICATE	20e	2e	<2
S12	29 May 2018		JT	FIELD DUPLICATE	<20	6e	<2
S12	29 May 2018		JT	LAB DUPLICATE	40e	4e	<2

ns = not sampled

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