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# Environmental Monitoring Report May-August 2020

**DOCUMENT NUMBER:** 462-10042-BWC- SHE-QS-015

**PROJECT NAME:** Dredging, Land Reclamation and Revetment works at Gulhifalhu
**PROJECT NUMBER:** 462-10042

**CLIENT NAME:** Ministry of National Planning, Housing and Infrastructure, Maldives
**CLIENT REFERENCE:** MNPHI

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# 1 INTRODUCTION

## 1.1 PROJECT BACKGROUND

The aim of the Project is to extend the land mass at Gulhifalhu, as part of the master plan for the international port development in Greater Malé Area. This will be achieved by reclaiming land and protecting the reclamation with revetment.

The total area of additional land to be reclaimed is approximately 190 ha at Gulhifalhu. Figure 1-1 shows the location of the subject atolls and islands. Figure 1-2 shows North Malé Atoll and Gulhifalhu island location. Figure 3 shows the reclamation design for Stage 1 of the reclamation.

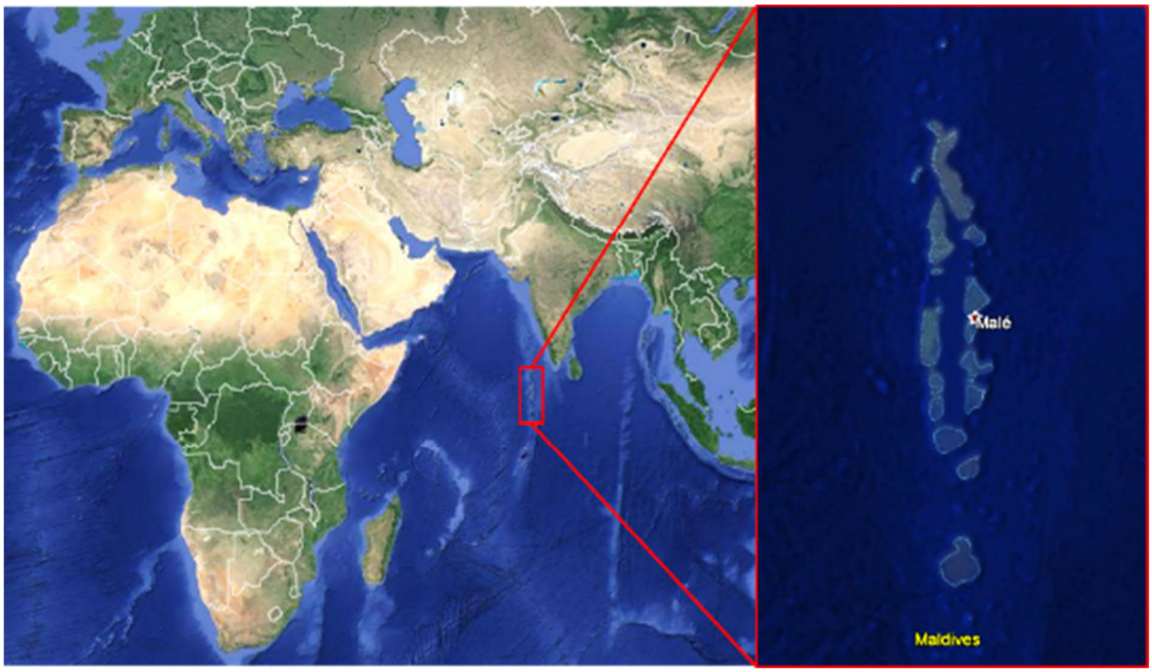


*Figure 1-1 - Location of Maldives*


*Figure 1-2 - Location of Gulhifalhu*

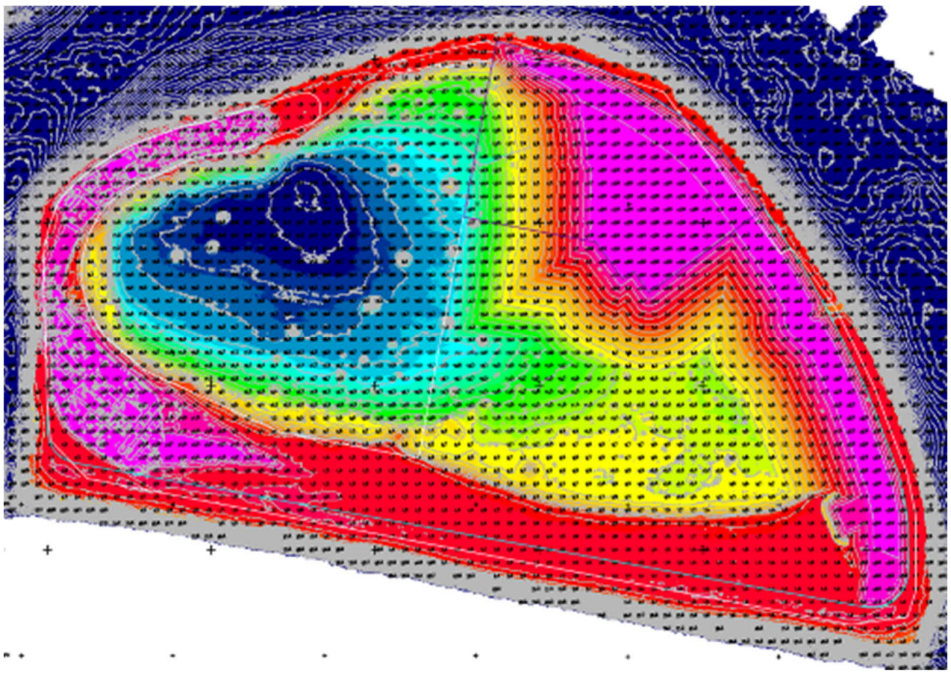

*Figure 1-3 - Preliminary reclamation design – Stage 1*

## 1.2 SCOPE OF WORK

The Project involves the land reclamation of Gulhifalhu. The overall project can be divided into the following components:

- Pre-dredging and reclamation works
  - Sand search
  - Deployment of mitigation measures
- Dredging and Reclamation
  - Equipment and material mobilization
  - Dredging new entrance channel
  - Dredging and reclamation works
- Construction of shore protection works
  - Equipment and material mobilization
  - Shore protection construction
- Demobilization
  - Handover and demobilize equipment

The Stage 1 reclamation will be created using approximately 6 million $m^3$ of sand, which will be sourced from inside North Malé Atoll. The majority of the reclamation will be made to a height of +2.0 m MSL. The area in the north, which is to be developed as the Port Phase I, will be made to a height of +2.6 m MSL. The revetment will be made by Sub-contractor CIFL. The revetment of this phase has a length of approximately 1.5 km of permanent revetment, which will be made to a height of +2.2 m MSL, and approximately 1 km of temporary revetment. The exact design is still under discussion with the Client and therefore these numbers may still change.

The two main dredgers used for the Project are BHD Colbart and TSHD Fairway. The Colbart will be used to construct a sand bund before starting reclamation works, to contain the sediment and any sediment plumes and to dredge the new entrance channel. The Fairway is used for the dredging and reclamation, which will take approximately 26 weeks. Sand will be sourced from the Primary Borrow Area (Figure 1-4). If necessary, permission will be requested to source sand from either of the two Alternative Borrow Areas.

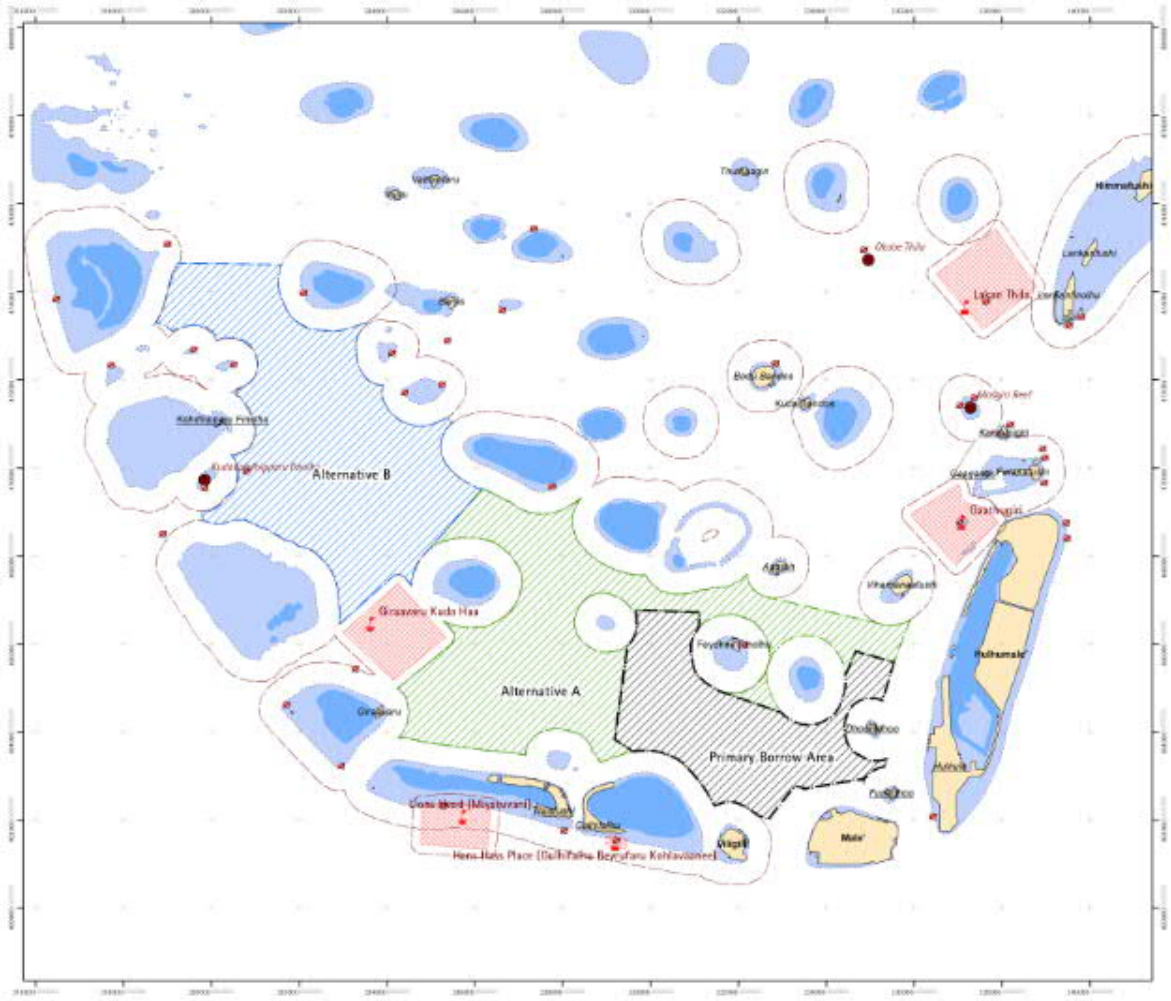


*Figure 1-4 - Sand Borrow Areas*

## 1.3 DOCUMENT SCOPE

This environmental monitoring report presents the results of the environmental monitoring conducted during week 22 to 34 2020, from the 28th May 2020 until 21st August 2020.

The TSHD Fairway conducted dredging at the borrow area on the 12th of June 2020 and completed its operation on the 20th August 2020. BHD Colbart started operations on 21st May 2020 at KP3329. During the first days of the execution it was found that the Colbart had difficulties due to the weather conditions. Hence, a new design is created for the island, resulting in BHD Colbart is operating more parallel to the waves. BHD Colbart stopped on the 06th July 2020.

For further detail on the dredging and reclamation works conducted in this period reference is made to the Daily and Weekly Progress Reports

Each day before conducting maintenance an assessment of predicted wind speeds, swell and wave heights and maximum wave heights is made to determine whether safe operations offshore are possible. In general, wind speeds over 15 knots are limiting for activities related to physicochemical analysis of seawater, swell heights over 0.5m are limiting to all monitoring and maintenance activities and max wave heights over 2.0m are generally limiting to all monitoring and maintenance activities.

The environmental monitoring presented in this report contains:

- Water quality monitoring (Chapter 2);
- Sedimentation (3);
- Coral reef health survey (4);
- Erosion and Coastal Changes (5).

For more detail on the environmental monitoring and management strategy, reference is made to the Project Environmental and Social Management Plan.

# 2 WATER QUALITY MONITORING

For the Dredging, Land Reclamation and Revetment Works at Gulhifalhu project, turbidity limit holds at 10mg/l, (converted to 5.2 NTU) at all reefs within the atoll lagoon in proximity to the dredging site. Exceptions shall be made where background rates exceeded the threshold level and in reefs where extensive reclamation work has been undertaken (including e.g. Thilafushi, Gulhifalhu, Villigili, Malé, Hulhumalé). Considerations also shall be made to account for naturally elevated levels of turbidity which may occur during storm events or bad weather.

## 2.1 METHOD

In-situ water quality measurements for physiochemical analysis are taken from a vessel, using a handheld multi-parameter probe, a laptop, and the vessel's navigation equipment.
Parameters measured are:

- Turbidity;
- Temperature;
- Conductivity;
- pH; and
- Depth.

## 2.2 LOCATIONS

On the 28th May 2020, in-situ measurements started and were taken at the reclamation area where the BHD Colbart was dredging (yellow mark). This was followed by in-situ measurements at the borrow and background locations on the 12th June 2020 in line with the commencement of TSHD Fairway operation around the borrow area (pink mark). In total, eighteen monitoring locations are being monitored including two background locations (W19 and W27) as presented in Figure 2-1.


*Figure 2-1 : Location turbidity monitoring stations.*

Turbidity is measured in Nephelometric Turbidity Units (NTU) which is a measure of the relative clarity of water and is linearly correlated to the suspended particles in the water. By taking water samples and determining the SSC (Suspended Sediments Concentration in mg/l) and the turbidity (NTU) a correlation

factor is established. A relationship has been established based on measurements, resulting in the following relationship: 1 NTU = 1.92 mg/l.

## 2.3 TIME AND FREQUENCY

Weather permitting, in-situ measurements are taken once daily and during daylight hours only. The EIA requires measurements and water sample at the surface, at approximately 1 meter depth. For completeness, two additional depths are measured; 'bottom' and 'mid-water'. The maximum depth the probe will go to on a 30m cable (dependent on currents), or 90% of the water column if water depth is < 30m. The ‘mid-water’ measurement is taken at approximately 0.5 * the ‘bottom’ depth. Data recording is set to every second on an average of 1 minute per depth.

## 2.4 INSTRUMENTS

A Manta Eureka multi-parameter probe is used for the in-situ water quality measurements, capable of measuring the required physiochemical parameters (specifications see Appendix 2). The turbidity probe has a wiper to reduce biofouling of the sensor surface. The probes use 90° optics and infrared light in accordance with ISO7027. The probe uses a unique modulation technique to ensure almost complete rejection of ambient light conditions.

The Eureka turbidity probes are factory calibrated, and the calibration is verified monthly per Manufacturer’s specification. Log sheets of calibration verifications are kept by the Environmental Monitoring Engineer for each probe.

## 2.5 RESULTS

Results of the in-situ water quality measurements at the locations of the monitoring stations taken from calendar week 22 to week 33 are as follows:
Figure 2-2 to Figure 2-4 for Temperature (°C);
Figure 2-5 to Figure 2-7 for pH;
Figure 2-8 to Figure 2-10 for Conductivity (µS/cm);
Figure 2-11 to Figure 2-13 for Turbidity at Reclamation area (NTU);
Figure 2-14 to Figure 2-16 for Turbidity at the Borrow area (NTU).

### 2.5.1 Temperature: 28th May until 21st August 2020

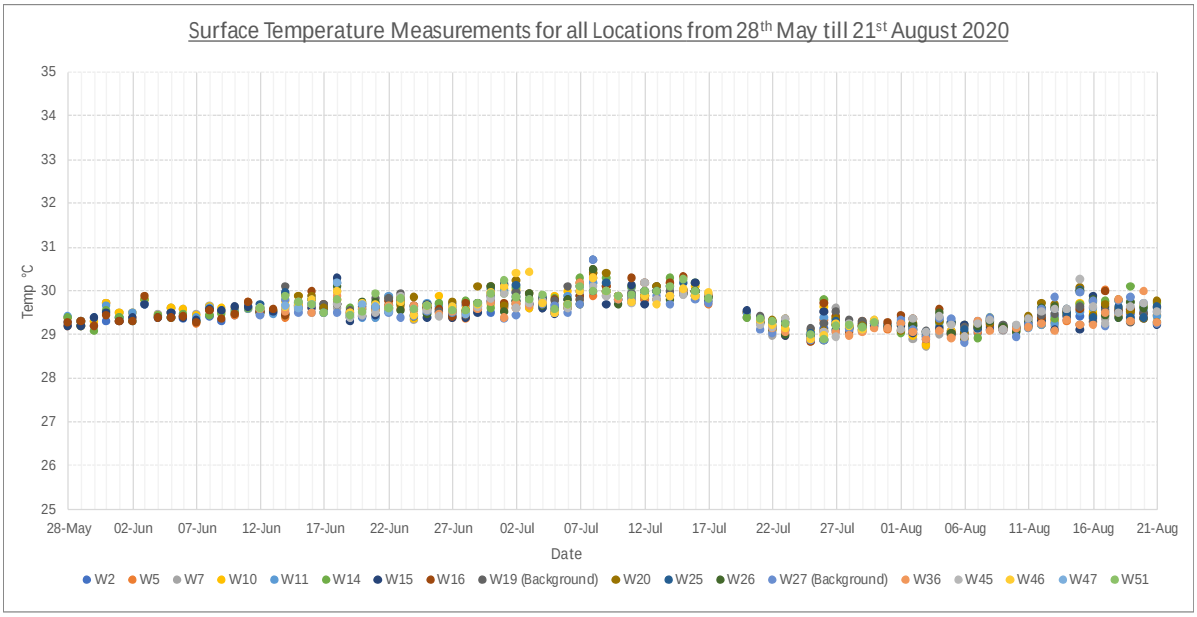


*Figure 2-2: Surface Temperature Measurements for all Locations from 28th May until 21st August 2020.*

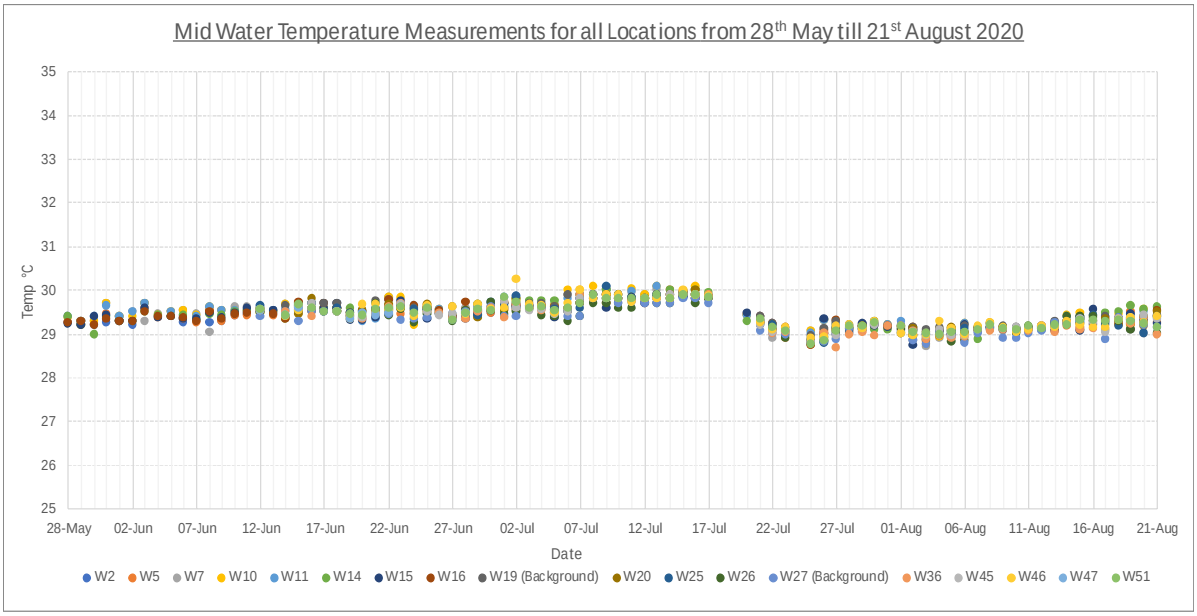


*Figure 2-3: Mid Water Temperature Measurements for all Locations from 28th May until 21st August 2020.*

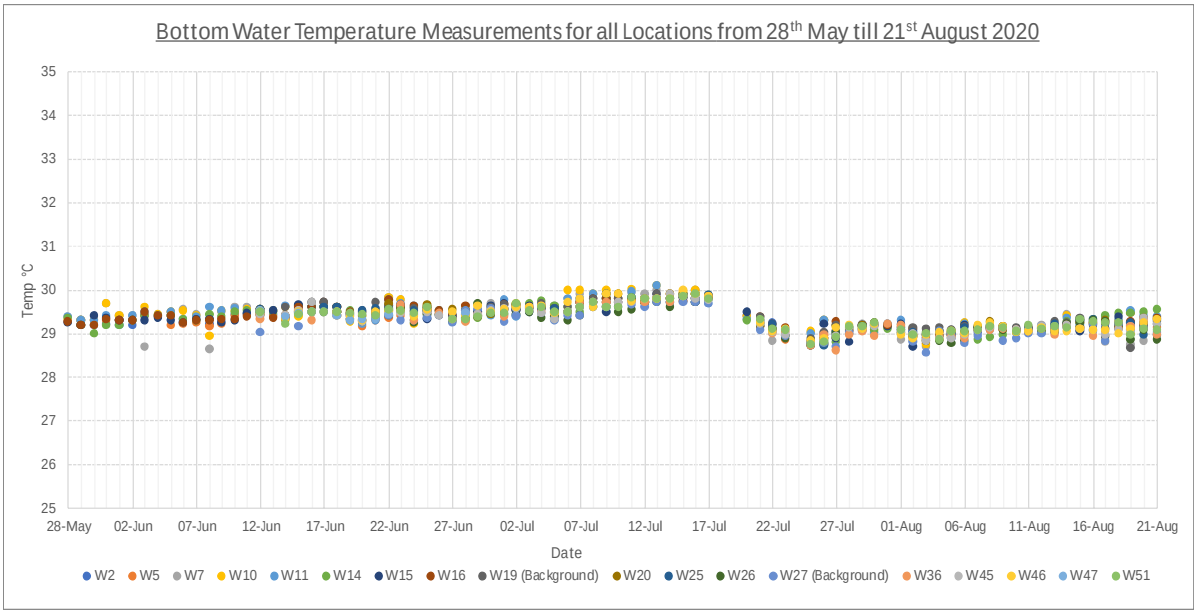


*Figure 2-4: Bottom Temperature Measurements for all Locations from 28th May until 21st August 2020.*

### 2.5.2 pH: 28th May until 21st August 2020

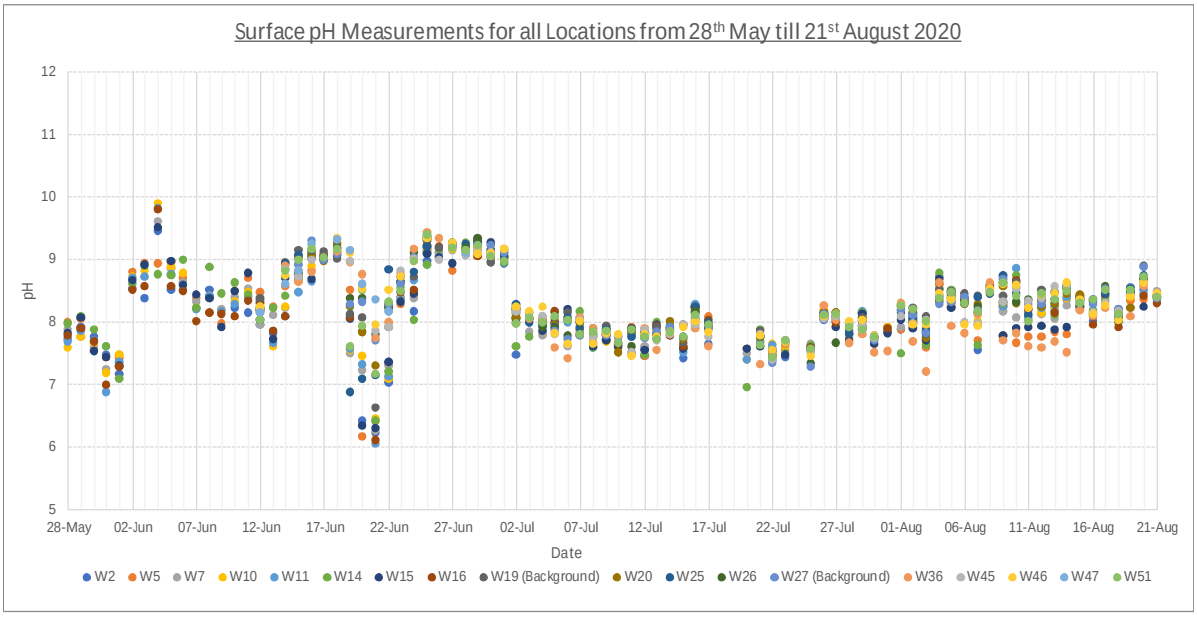


*Figure 2-5: Surface pH Measurements for all Locations from 28th May until 21st August 2020.*

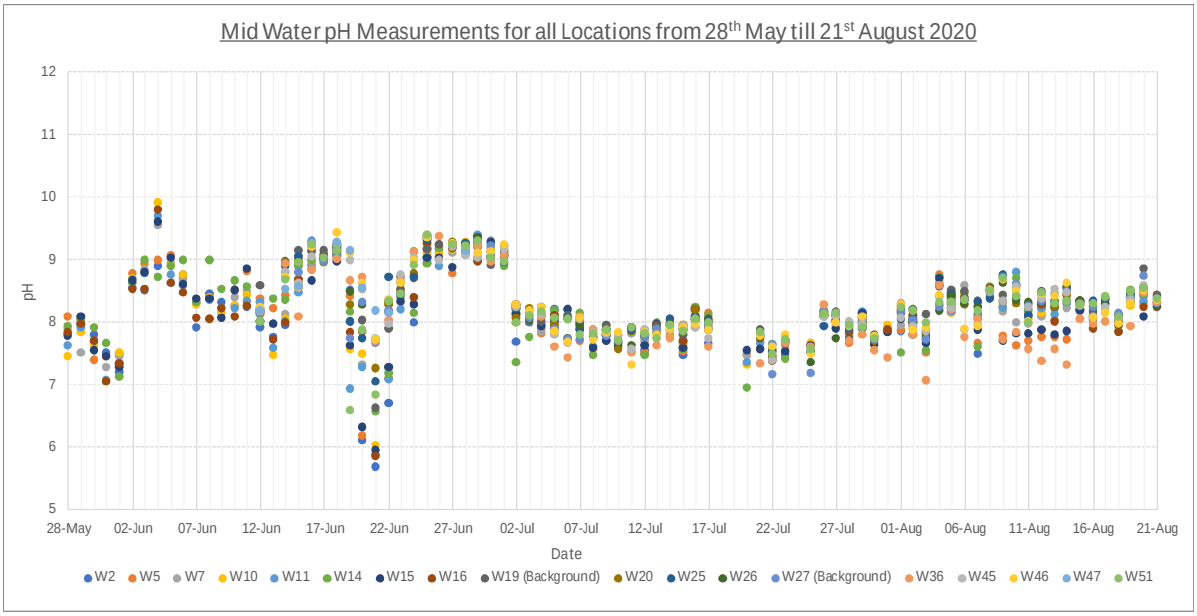


*Figure 2-6: Mid Water pH Measurements for all Locations from 28th May until 21st August 2020.*

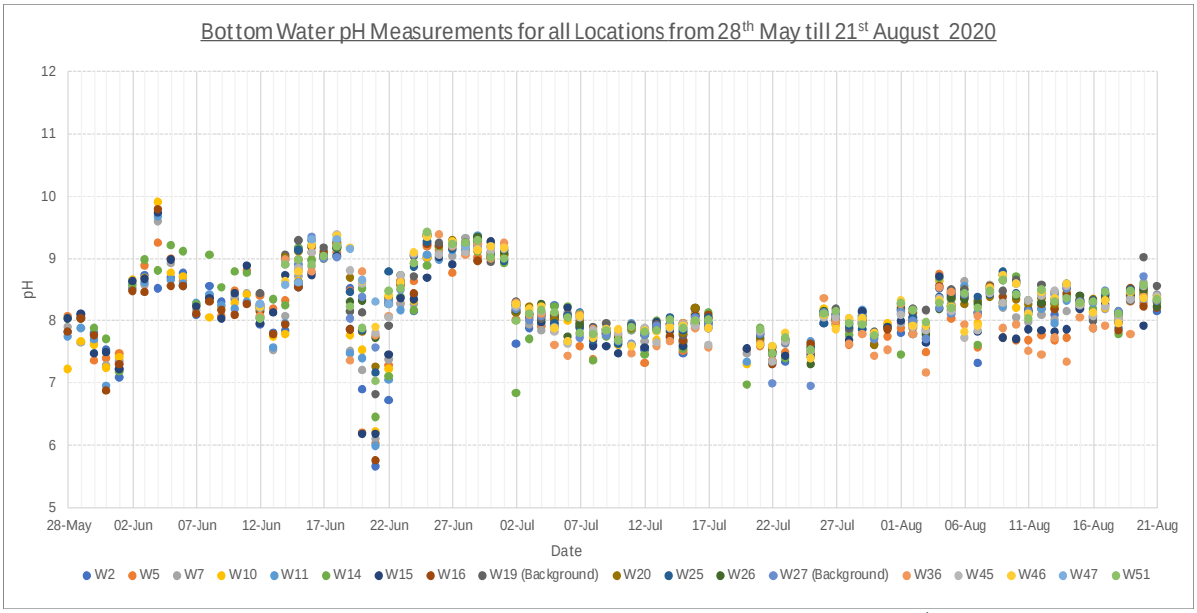


*Figure 2-7: Bottom pH Measurements for all Locations from 28th May until 21st August 2020.*

### 2.5.3 Conductivity: 28th May until 21st August 2020

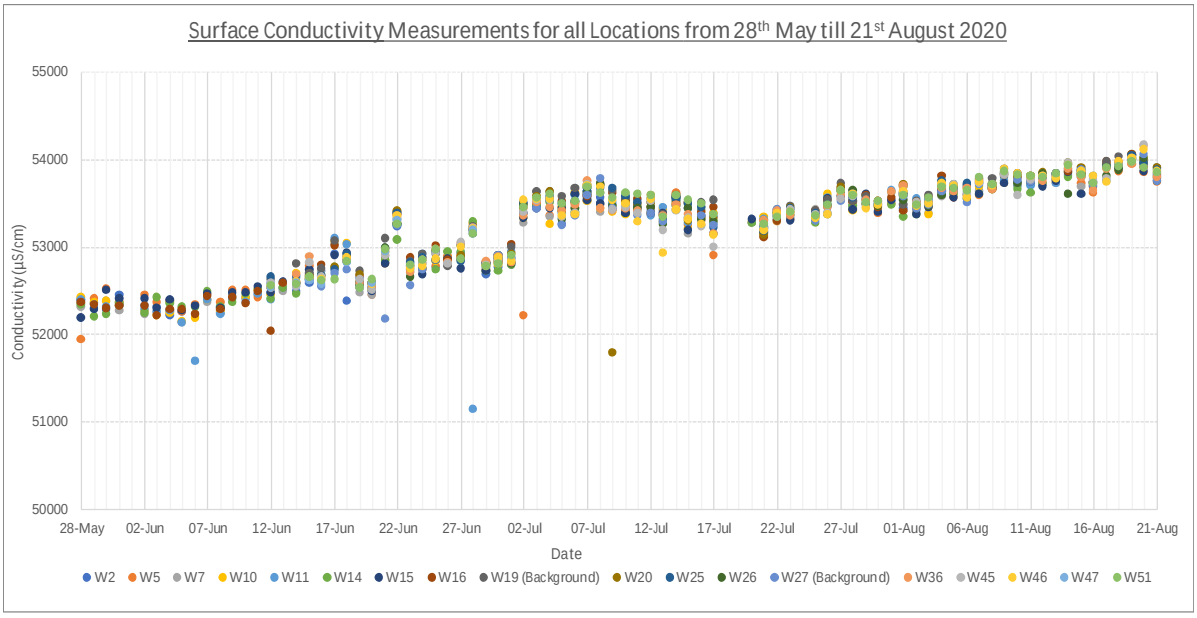


*Figure 2-8: Surface Conductivity Measurements for all Locations from 28th May until 21st August 2020.*

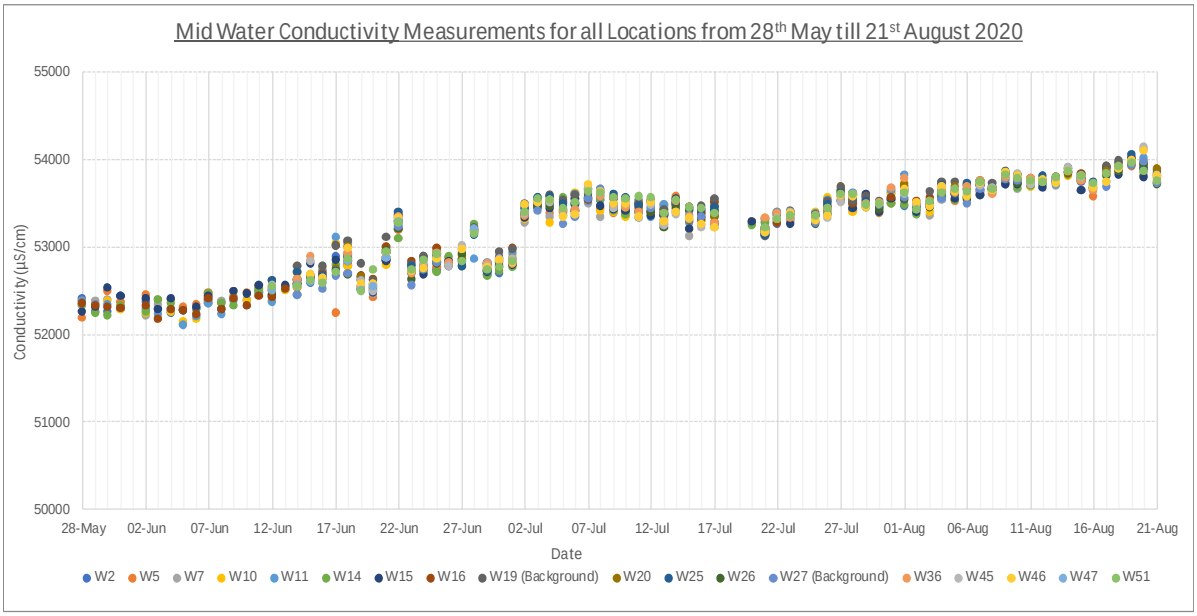


*Figure 2-9: Mid Water Conductivity Measurements for all Locations from 28th May until 21st August 2020.*

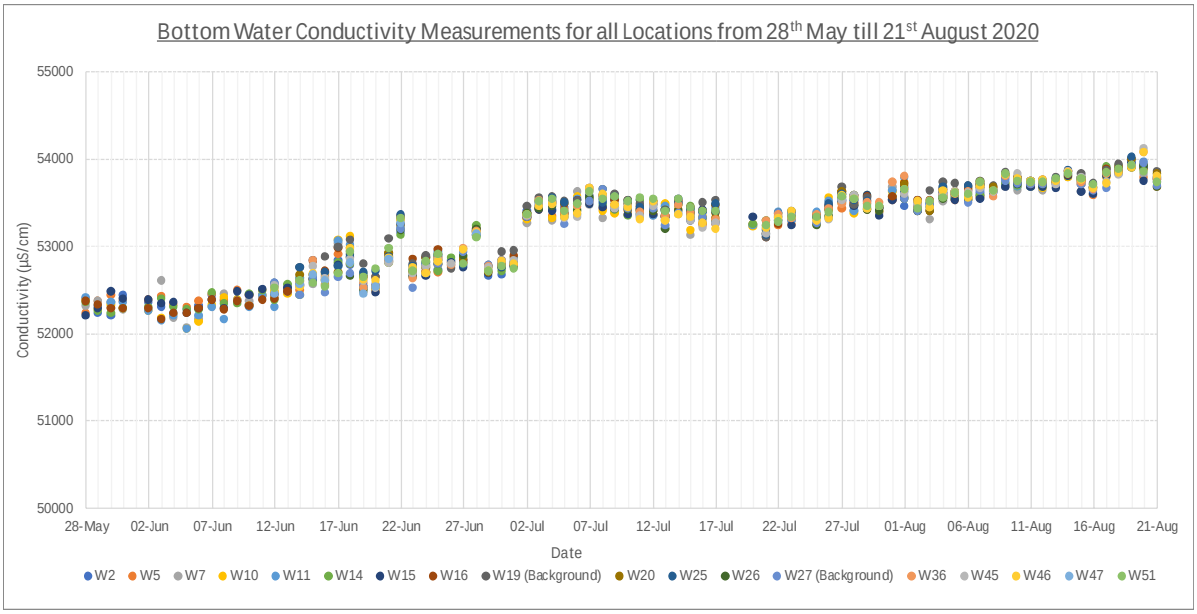


*Figure 2-10: Bottom Conductivity Measurements for all Locations from 28th May until 21st August 2020.*

### 2.5.4 Turbidity (Reclamation area): 28th May until 21st August 2020

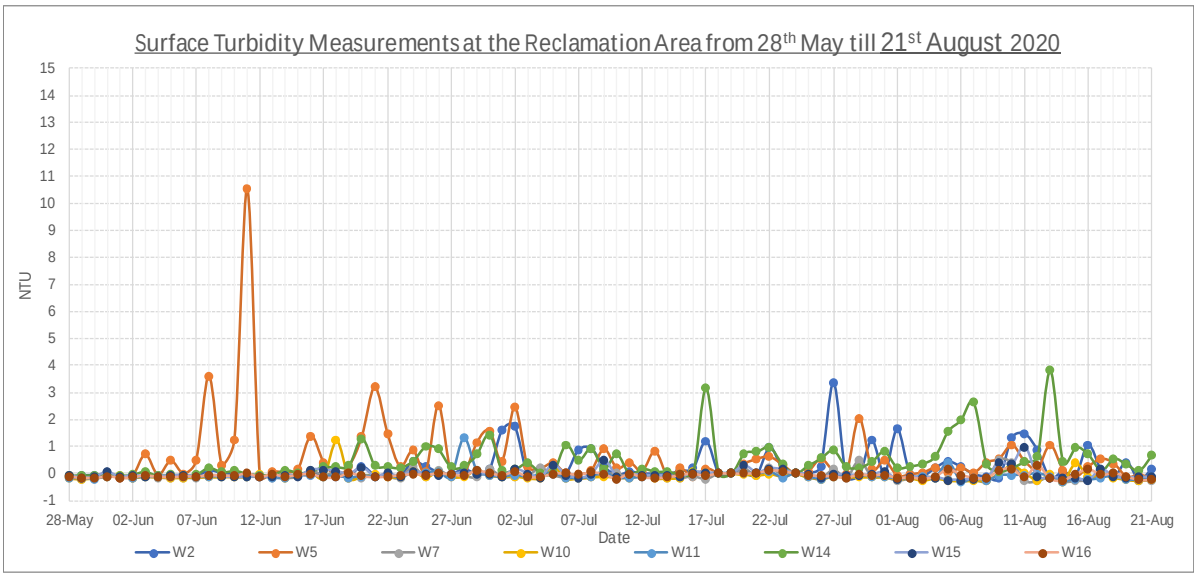


*Figure 2-11: Surface Turbidity Measurements at the Reclamation Area from 28th May until 21st August 2020.*

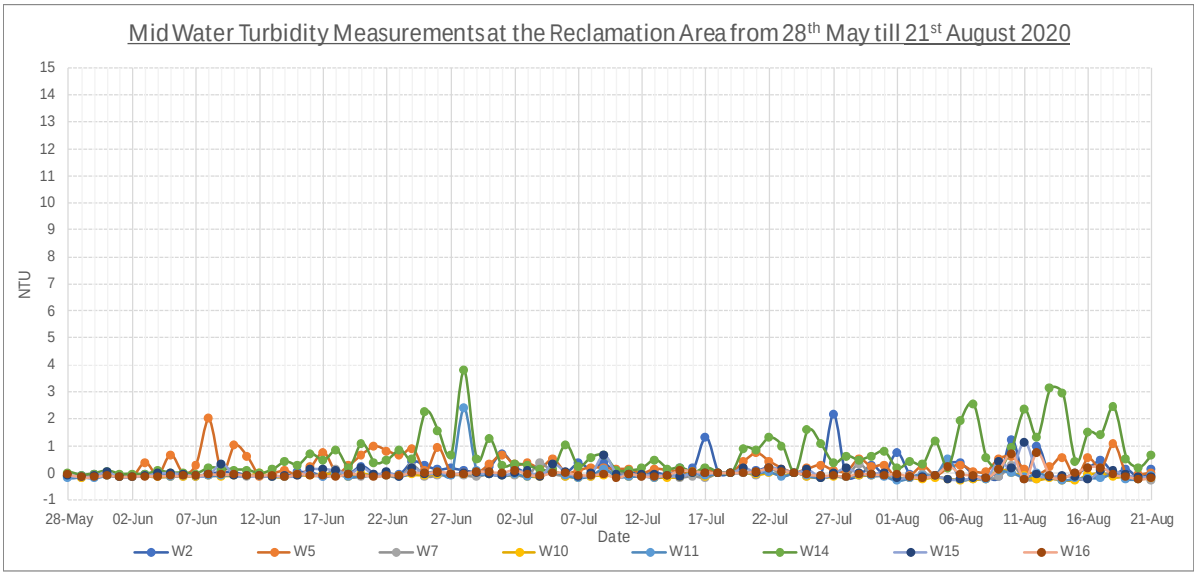


*Figure 2-12: Mid Water Turbidity Measurements at the Reclamation Area from 28th May until 21st August 2020.*

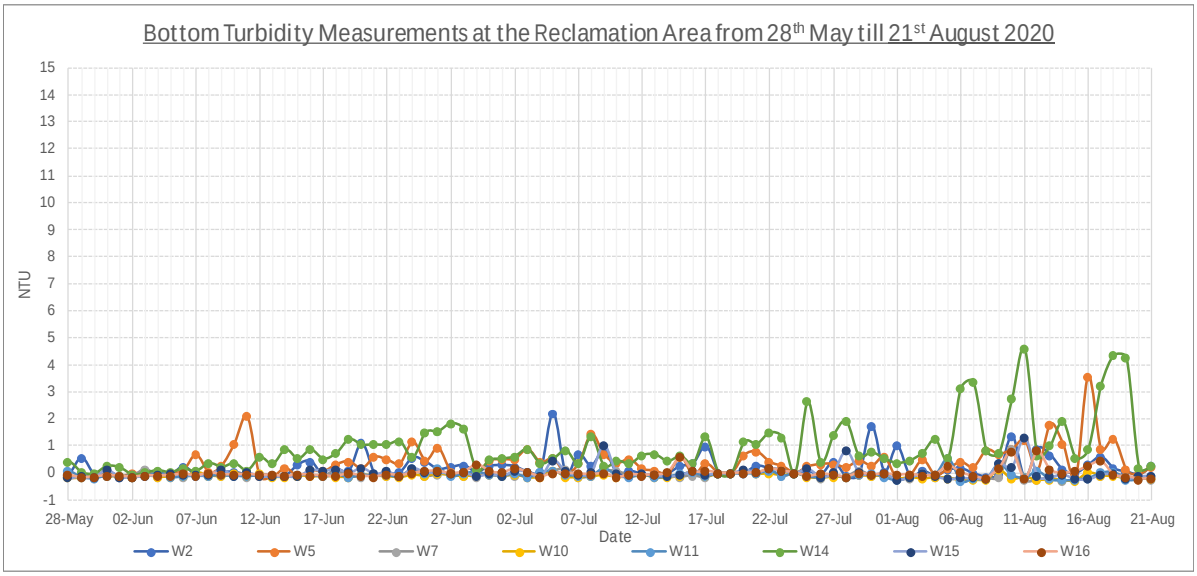


*Figure 2-13: Bottom Turbidity Measurements at the Reclamation Area from 28th May until 21st August 2020.*

### 2.5.5 Turbidity (Borrow area): 28th May until 21st August 2020

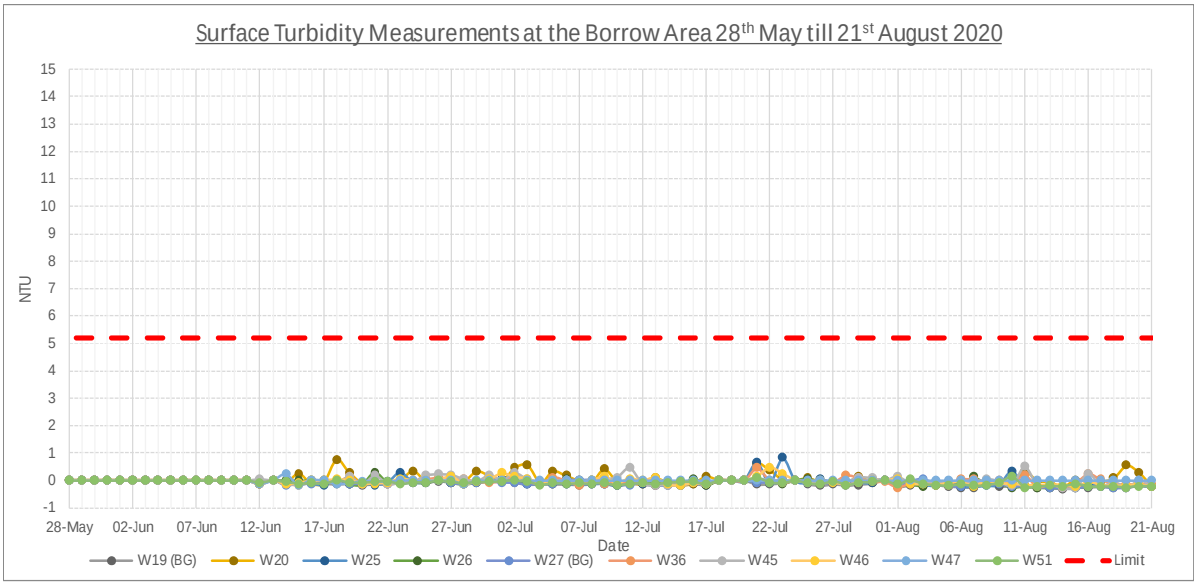


*Figure 2-14: Surface Turbidity Measurements at the Borrow Area from 28th May until 21st August 2020.*

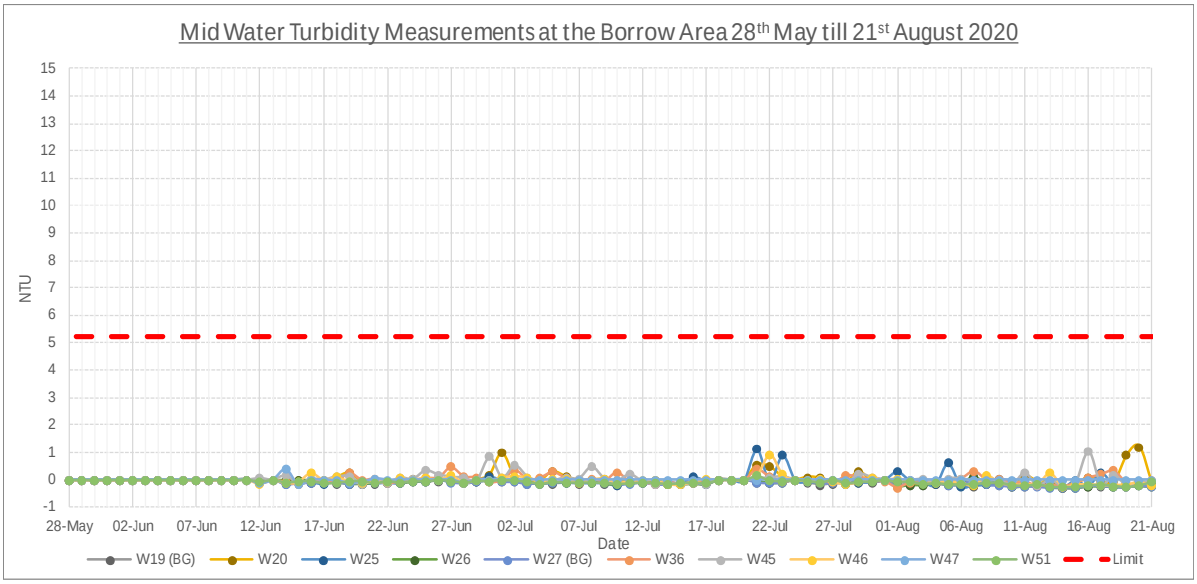


*Figure 2-15: Mid Water Turbidity Measurements at the Borrow Area from 28th May until 21st August 2020.*

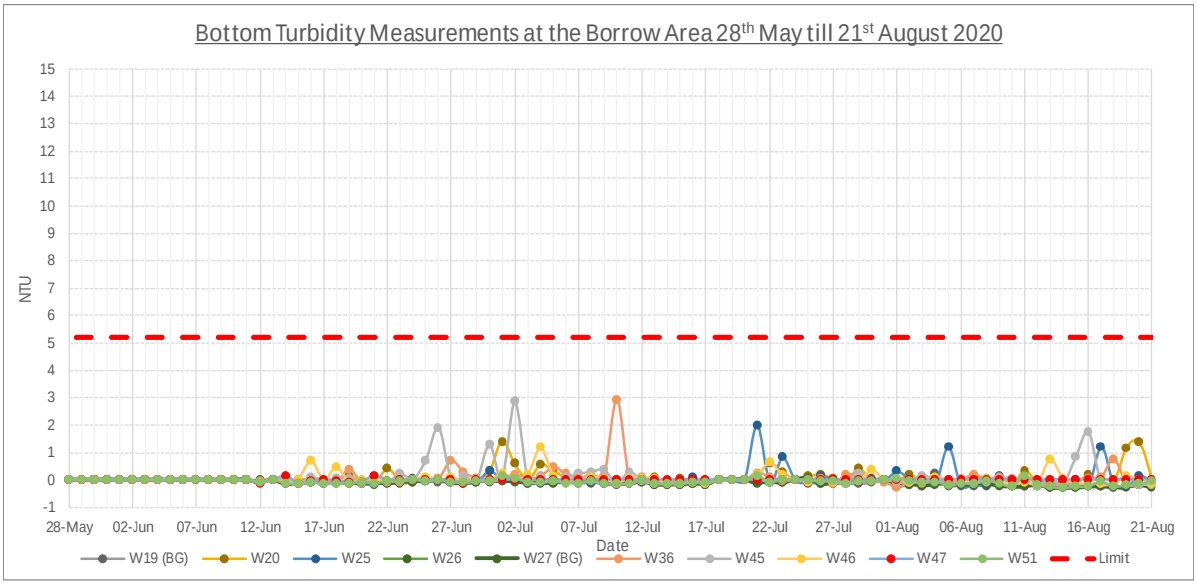


*Figure 2-16: Bottom Turbidity Measurements at the Borrow Area from 28th May until 21st August 2020.*

### *2.5.6 Summary*

During this reporting period, no unexpected turbidity exceedances were measured. Daily average water quality data per location are shown in Appendix I.

It should be noted that readings can show minus values, when more light is reflected in the field compared to circumstances during calibration. Negative values indicate no turbidity and should therefore be interpreted as 0 NTU.

A drop in pH data were observed on the 21st June 2020. The pH sensor was cleaned.

Moreover, as from the 23rd of June 2020, no measurements were taken at location 47 due to access restrictions by the marine police.

Furthermore, as part of the corrective actions and due to the environmental restrictions, BHD Colbart stopped dredging operations for a total of 4585 minutes from week 22 until week 26 and the TSHD Fairway for 245 minutes in week 26 as their generated plume were exceeding halfway of the channel towards Villingili island. In line with this, the project started to assemble siltscreens to restrain the spread of plume. Assembly started in week 23 and a total of 200m of siltscreen was deployed in week 24 at the south entrance channel. Relocations of siltscreens were done in week 26 to 27 to inside the northern end of the bund as the dredging operations progress.

## 2.6 QUALITY ASSURANCE, QUALITY CONTROL

### *2.6.1 Calibration of Turbidity sensors*

The Eureka Manta multiparameter probes are factory calibrated, and the calibration is verified monthly per manufacturer specification. Log sheets of calibration verifications are kept by the Environmental Engineer for each probe and are available hard and soft copy on site. Dates of calibration/verification of sensors currently on site are shown in Table 2-1.

*Table 2-1: Calibration sensors*

| EUREKA MULTIMETER SENSOR | STATUS | CALIBRATION DATES |
|---|---|---|
| S/N: MT12183556 | Used for measurements | 01st June 2020<br>01st July 2020<br>31st July 2020<br>20th August 2020<br>25th August 2020 (pH only) |
| S/N: MT12183554 | Spare | N/A |

# 3 SEDIMENTATION RATE

CDE Consulting have been commissioned by Boskalis for the purpose of meeting the EIA requirement for monitoring sedimentation rate at selected reefs within the impact area of the Phase I - Gulhifalhu Port development Project (Dredging, Reclamation and Revetment works). Sedimentation rates are monitored at reefs that may potentially be affected by the dredging and reclamation works.

Sedimentation was monitored continuously during dredging and reclamation works. A daily average limit of 15 mg/cm$^2$/day, not exceeding 20% of the measurements, applies at the monitoring locations around the primary borrow area. During this reporting period, sediment traps were deployed between 30$^{th}$ May 2020 until 10$^{th}$ August 2020 on five fortnightly periods.

- Monitoring Period 1 (P1) – 30$^{th}$ May until 15$^{th}$ June 2020
- Monitoring Period 2 (P2) – 13$^{th}$ June until 01$^{st}$ July 2020
- Monitoring Period 3 (P3) – 27$^{th}$ June until 13$^{th}$ July 2020
- Monitoring Period 4 (P4) – 11$^{th}$ July until 28$^{th}$ July 2020
- Monitoring Period 5 (P5) – 26$^{th}$ July until 10$^{th}$ August 2020
- Monitoring Period 6 (P6) – 08$^{th}$ August until 24$^{th}$ August 2020
- Monitoring Period 7 (P7) – 22$^{nd}$ August until 08$^{th}$ September 2020 (no dredging and reclamation works during this period)

Furthermore, below were the major project activities during the monitoring period;

- Reclamation of temporary work site on the south eastern reef flat of Gulhifalhu using in-situ material dredged using a back-hoe dredger;
- Deployment of big sandbags on the eastern reef flat of Gulhifalhu, outside the planned sand bund boundary using an excavator mounted on a barge;
- Construction of sand bund on the eastern reef flat using in-situ material dredged using a back-hoe dredger;
- Reclamation of the eastern reef flat;
- Dredging of a new entrance on the northern side and the borrow area;
- Reclamation of inner lagoon of Gulhifalhu;
- Dredging operations at the sand borrow area. Dredging operations completed on 20th August 2020;
- Installation of temporary revetment on north and northeast side of the reclamation;
- Preparations for installation of permanent revetment on the reclaimed area.

## 3.1 METHOD

The same method for measuring sedimentation rate was applied as used for the baseline survey for the EIA [Ref. 10]. Sedimentation rate on the reef will are measured using sediment traps, which consisted of:

- Sediment traps, Figure 3-1 (constructed from 5 cm internal diameter PVC pipe, 11.5 cm long and sealed at one end, with baffles placed in the top of the pipe to prevent entry of fishes) (English, Wilkinson & Baker, 1997).
- Iron rods

The iron rods are hammered into the substratum, so that they are vertical and firmly secured. Three sediment traps are attached to the rod with cable tie. The base of the trap is 20 cm from the substratum, and the traps are tied to the rod in a way that rod does not protrude above the opening of the pipes.
The traps are left for a fourteen-day period and thereafter retrieved, weather permitting. The traps were sealed prior to removal from the rod, to prevent loss of any material. The sample are dried in oven (at 60 °C) and weighed to the nearest milligram.

*Figure 3-1: Sediment traps design.*

Sedimentation rate is calculated as milligrams (mg) of sediment per $cm^2$ per day, using the following formula, where Sediment Weight is average dry weight of the sediment samples, and "r" is radius of the trap opening.

**Sedimentation rate** = ***(Sediment weight) / (Number of days × πr²)***

## 3.2 LOCATIONS

Sedimentation rate is measured at the locations indicated in Figure 3-2 as per the approved Environmental Monitoring Plan for the project. Three location categories are used:

- Yellow – To be monitored when reclamation works are being performed
- Pink – To be monitored when dredging is performed in the primary borrow area

*Table 2: Sedimentation measurement positions*

| TRAP ID | DESCRIPTION | LATITUDE | LONGITUDE | DEPTH (M) |
|---|---|---|---|---|
| **T2** | *Gulhifalhu (N)* | 4.18785° | 73.4684° | 2.5 |
| **T4** | *Gulhifalhu (NE)* | 4.182291° | 73.475565° | 3 |
| **T6** | *Gulhifalhu (SE)* | 4.172121° | 73.478178° | 5 |
| **T7** | *Gulhifalhu (SE)* | 4.172238° | 73.474390° | 5 |
| **T8** | *Gulhifalhu (S)* | 4.17332° | 73.467003° | 5 |
| **T9** | *Gulhifalhu (S)* | 4.174529° | 73.461196° | 3.3 |
| **T10** | *Gulhifalhu (SW)* | 4.176124° | 73.454658° | 5 |
| **T11** | *Villingili (NW)* | 4.176084° | 73.483121° | 10 |
| **T19** | *Feydhoo Finolhu* | 4.211618° | 73.481556° | 3 |
| **T20** | *Olhuhaa* | 4.217497° | 73.458640° | 2.5 |
| **T21** | *Bangau* | 4.222450° | 73.429949° | 2.7 |
| **T22** | *Kurumba* | 4.226931° | 73.517007° | 2.5 |
| **T23** | *Dhiyaneru* | 4.231697° | 73.471358° | 2.5 |
| **T24** | *Kandinmafalhu* | 4.238414° | 73.457170° | 2.5 |

Note: according to the EIA, of the locations at Gulhifalhu south side (T6, T7, T8, T9 and T10), only two have to be monitored, based on the progress of works. Therefore, T6 and T7 have been monitored continuously, due to their proximity to the works. Additionally, during periods 4 - 6, T9 has been monitored for additional information.


*Figure 3-2: Sedimentation measurement locations.*

## 3.3 RESULTS

Table 3 shows the sedimentation measured for period 1 (P1) until period 5 (P5) alongside with the Baseline average. Note that the TSHD Fairway started from 14th June 2020, CDE placed the sediment traps before dredging works for baseline levels at locations T21, T23 and T24 as these locations were not part of the background survey. Furthermore, no limit applies at Gulhifalhu and Villigili, as these sites are already heavily influenced by previous extensive reclamation works. Please note that background level of sedimentation already exceeded 15 mg/cm$^2$/day at the south of Gulhifalhu (Hans Hass Place) and at T21 and T23 before any dredging and reclamation works took place. Additionally, considerations shall be made to account for naturally elevated sedimentation levels which may occur during storm events or bad weather.

- **Sedimentation rates recorded at monitoring sites in Gulhifalhu and Villingili**
  - **T-2** sedimentation rate over monitoring periods 1 to 4 progressively increased from 18.63 to 432.96 mg/cm$^2$/day. It is located on the northern side of Gulhifalhu where the perimeter bund seemed to suffer more erosion than along the eastern side. Sediment traps for Period 5 went missing whilst rate during period 6 and 7 went from 41.99 to 177.75 mg/cm$^2$/day;
  - **T-4** recorded its highest rate during period 1. It was the nearest monitoring site to the sand bund that was under construction at that time. The recorded rates throughout the remaining period significantly lower than the first rate yet still above the trigger value;
  - **T-6** sedimentation rate was below the trigger value between Periods 1, 2 and 5, though Periods 3, 4, 6 and 7 showed increased rate ranging from 27.18 to 67.04 mg/cm$^2$/day. Please note that severe weather conditions were experienced during Period 3 and Period 4;
  - **T-7** sedimentation rates between Periods 1 and 7 range from 4.96 to 19.82 mg/cm$^2$/day;
  - **T-9,** located on the southern side of Gulhifalhu, was additionally monitored in Periods 4 to 7. Compared to the baseline taken for the Environmental Impact Assessment (EIA) for the Project, the average sedimentation rates were significantly lower at this site and below the trigger value;
  - **T-11** sedimentation rate was low during Periods 1-3 and 5-7, and recorded a slightly high rate in Period 4 with a 17.93 mg/cm$^2$/day rate.

- **Sedimentation rate at monitoring sites near dredging site**
  No dredging was undertaken at the sand borrow area during Period 1. No major anthropogenic activities that may influence sedimentation rates at these monitoring sites were recorded during this period. Hence it can only be assumed that the sedimentation rate recorded at these sites are localized and is part of natural sediment flow at the site, and can therefore be considered a baseline. Sediment movement and deposition on a reef is influenced by various natural factors such as tidal changes, wave condition.
  - **T-19** sedimentation rate during periods 3, 5 and 6 were below the trigger level, yet were high in Periods 2, 4 and 7. This is a newly reclaimed island, and construction works were ongoing on the island during monitoring period 4. This was also the highest rate recorded at this monitoring site since the start of monitoring program. Furthermore, severe weather condition and rough sea state was likely cause of the high sedimentation rates during Period 7;
  - **T-20** recorded sedimentation rates above the trigger level all throughout the monitoring periods ranging from 57.34 to 206.04 mg/cm$^2$/day. Olhuhaa is a large sea mount with top exclusively made up of sand, disturbances caused by rough seas, wave action may result in significant increase in sedimentation on the reef;
  - **T-21** Periods 2, 3 5 and 6 sedimentation rate were very low in comparison to its baseline rate though slightly above the trigger value. Period 3 rate was below the 15 mg/cm$^2$/day. Period 4 recorded 66.95 mg/cm$^2$/day and Period 7 recorded its highest with a 203.94 mg/cm$^2$/day. Please note that disturbances caused by rough seas and severe weather conditions may contribute to significant increase in sedimentation and due to background exceedances (P1), limit doesn't apply here;
  - **T-22** sedimentation rate was below the trigger value all throughout the monitoring apart from Period 7 with 47.74 mg/cm$^2$/day. Severe weather condition and rough sea state was likely cause of the high sedimentation rates during Period 7;
  - **T-23** sedimentation rate in periods 3 and 6 were below the trigger level, yet were high in Periods 2, 4, 5 and75. The high sedimentation rate recorded at this site may have been contributed by rough weather events and due to background exceedances (P1), limit doesn't apply here;
  - **T-24** sedimentation rate was below the trigger value all throughout the monitoring apart from Period 7 with 26.23 mg/cm$^2$/day.

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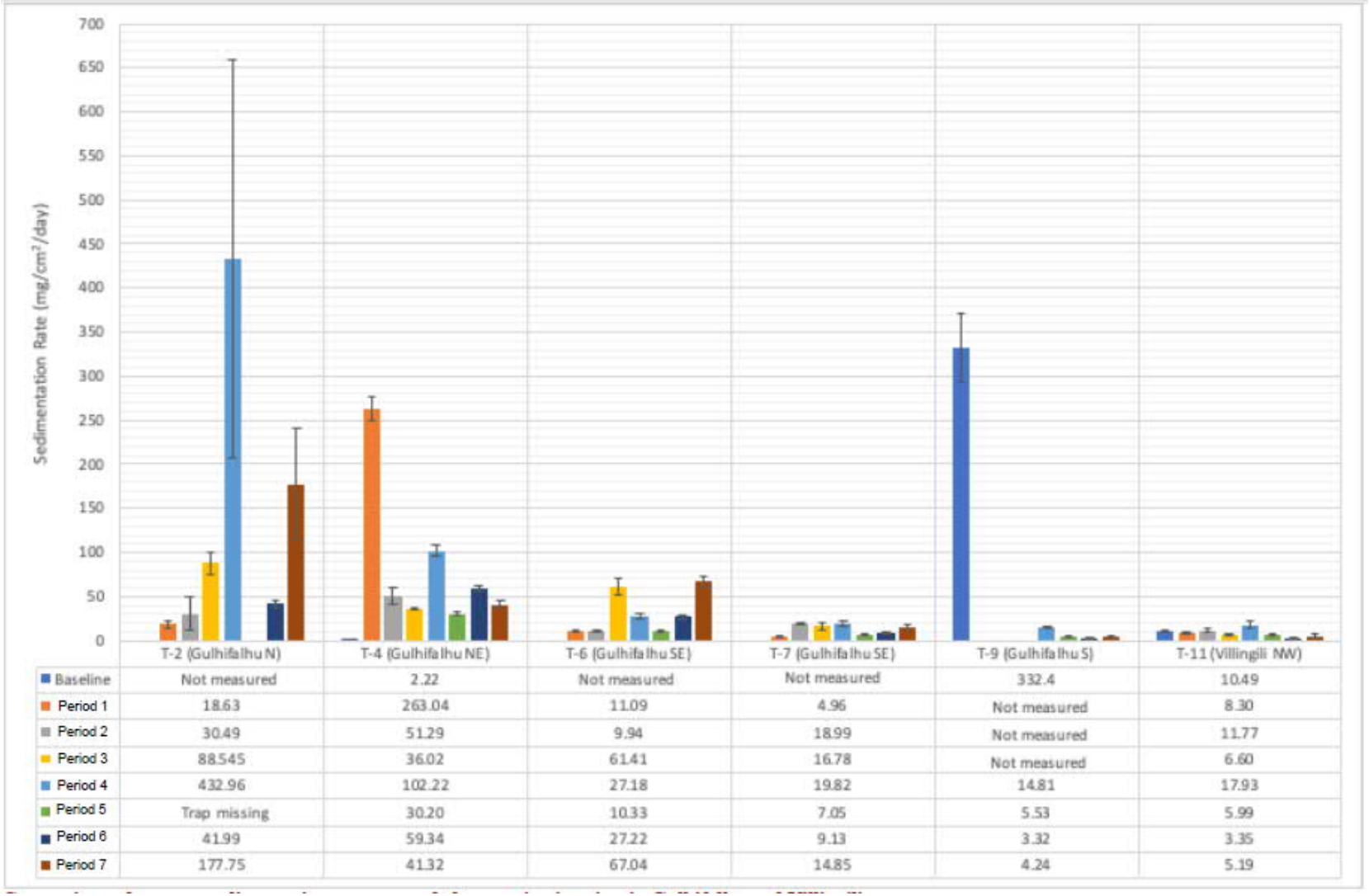
*Table 3: Sedimentation rate and deployment overview*

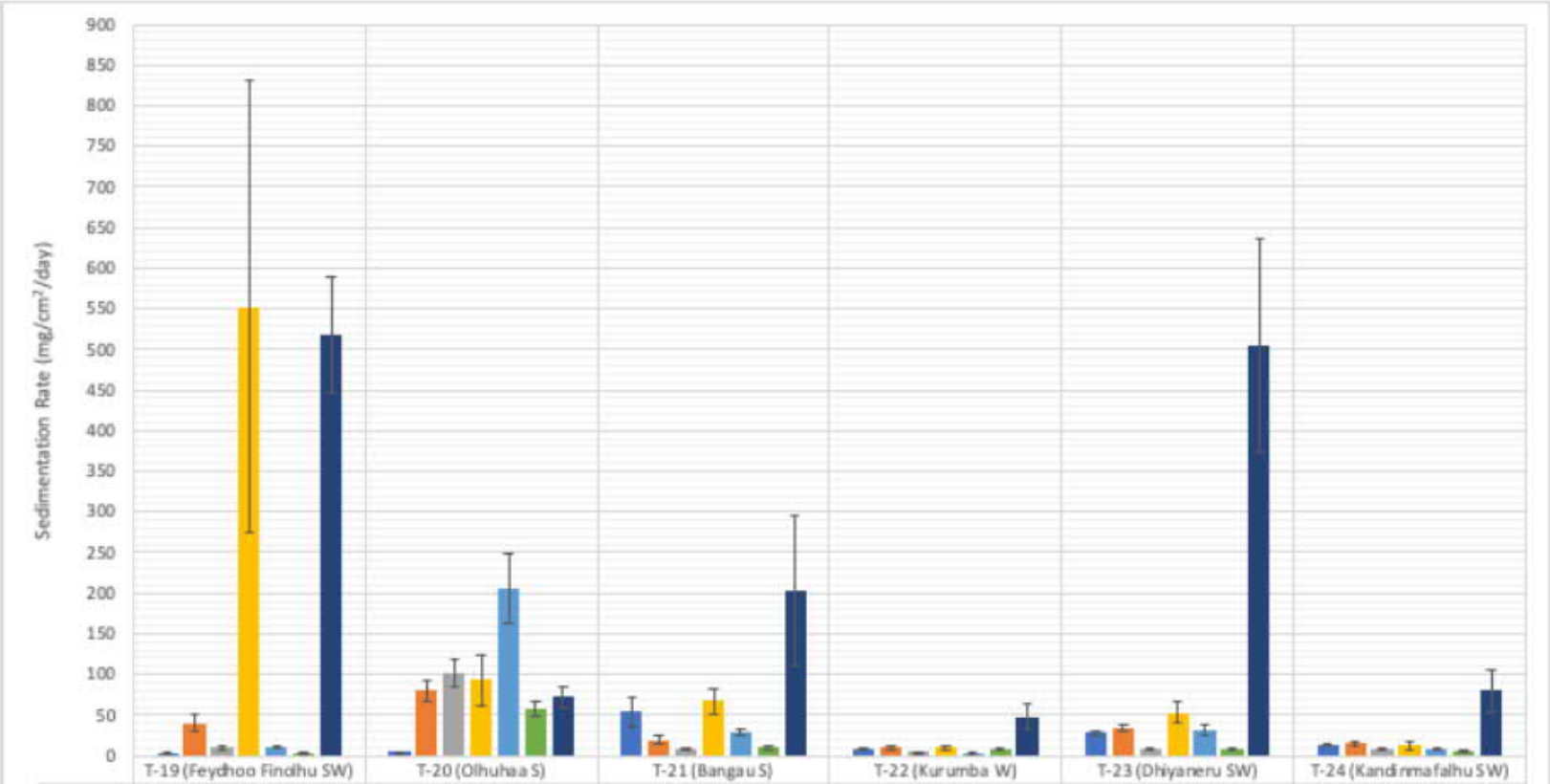
| Trap ID | Description | Baseline Average (mg/cm2/day) | Period 1 (P1) | | | Period 2 (P2) | | | Period 3 (P3) | | | Period 4 (P4) | | | Period 5 (P5) | | | Period 6 (P6) | | | Period 7 (P7) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Deployment Dates | Rate (mg/cm2/day) | ± SE | Deployment Dates | Rate (mg/cm2/day) | ± SE | Deployment Dates | Rate (mg/cm2/day) | ± SE | Deployment Dates | Rate (mg/cm2/day) | ± SE | Deployment Dates | Rate (mg/cm2/day) | ± SE | Deployment Dates | Rate (mg/cm2/day) | ± SE | Deployment Dates | Rate (mg/cm2/day) | ± SE |
| T2 | Gulhifalhu (N) | | 31 May - 14 June 2020 | 18.63 | 4.3 | 14-29 June 2020 | 30.49 | 18.81 | 29 June – 12 Jul 2020 | 88.55 | 12.6 | 12-27 July 2020 | 432.96 | 225.8 | 27 July 2020 ** | ** | ** | 12-23 Aug 2020 | 41.99 | 3.92 | 23 Aug – 05 Sep 2020 | 177.75 | 62.84 |
| T4 | Gulhifalhu (NE) | | 31 May - 15 June 2020 | 263 | 14.12 | 15-29 June 2020 | 51.29 | 9.77 | 29 June – 12 Jul 2020 | 36.01 | 1.91 | 12-27 July 2020 | 102.22 | 6.84 | 27 July – 09 Aug 2020 | 30.2 | 1.95 | 09-23 Aug 2020 | 59.33 | 2.7 | 23 Aug – 05 Sep 2020 | 41.32 | 3.22 |
| T6 | Gulhifalhu (SE) | | 30 May - 14 June 2020 | 11.09 | 1.45 | 14-28 June 2020 | 9.94 | 1.02 | 29 June – 11 Jul 2020 | 61.41 | 10.27 | 11-26 July 2020 | 27.18 | 3.63 | 26 July – 08 Aug 2020 | 10.32 | 1.09 | 08-23 Aug 2020 | 29.16 | 2.48 | 23 Aug – 07 Sep 2020 | 67.04 | 5.98 |
| T7 | Gulhifalhu (SE) | | 30 May - 14 June 2020 | 4.96 | 0.2 | 14-28 June 2020 | 18.99 | 1.03 | 29 June – 11 Jul 2020 | 16.78 | 4.52 | 11-26 July 2020 | 19.82 | 2.8 | 26 July – 08 Aug 2020 | 7.05 | 0.83 | 08-23 Aug 2020 | 9.13 | 1.65 | 23 Aug – 05 Sep 2020 | 14.85 | 3.28 |
| T8 | Gulhifalhu (S) | 4.98 | | | | | | | | | | | | | | | | | | | | | |
| T9 | Gulhifalhu (S) | 332.4 | | | | | | | | | | 11-26 July 2020 | 14.81 | 1 | 26 July – 08 Aug 2020 | 5.53 | 0.99 | 09-22 Aug 2020 | 3.32 | 0.57 | 22 Aug – 05 Sep 2020 | 4.24 | 0.79 |
| T10 | Gulhifalhu (SW) | 2.24 | | | | | | | | | | | | | | | | | | | | | |
| T11 | Villingili (NW) | 10.49 | 30 May - 15 June 2020 | 8.3 | 1.49 | 13-27 June 2020 | 11.77 | 2.24 | 29 June – 11 Jul 2020 | 6.6 | 1.07 | 11-26 July 2020 | 17.93 | 4.47 | 26 July – 08 Aug 2020 | 5.99 | 1.27 | 08-22 Aug 2020 | 3.35 | 0.95 | 22 Aug – 07 Sep 2020 | 5.19 | 1.56 |
| T19 | Feydhoo Finolhu | 3.46 | | | | 16-30 June 2020 | 40.27 | 10.99 | 30 June – 12 Jul 2020 | 9.48 | 3.33 | 12-27 July 2020 | 552.57 | 278.8 | 27 July – 09 Aug 2020 | 10.63 | 1.78 | 09-22 Aug 2020 | 4.06 | 0.49 | 22 Aug – 08 Sep 2020 | 516.91 | 71.21 |
| T20 | Olhuhaa | 5.11 | | | | 16-29 June 2020 | 80.37 | 12.49 | 29 June – 12 Jul 2020 | 101.54 | 17.92 | 12-27 July 2020 | 92.63 | 31.39 | 27 July – 09 Aug 2020 | 206.04 | 43.87 | 09-23 Aug 2020 | 57.34 | 10.1 | 23 Aug – 08 Sep 2020 | 72.06 | 13.32 |
| T21 | Bangau | | 01-14 June 2020 | 54.06 * | 18.06 | 14-29 June 2020 | 19.75 | 3.95 | 29 June – 12 Jul 2020 | 8.83 | 1.82 | 12-28 July 2020 | 66.95 | 14.96 | 28 July – 10 Aug 2020 | 28.36 | 3.73 | 10-23 Aug 2020 | 9.96 | 2.25 | 23 Aug – 07 Sep 2020 | 203.94 | 91.91 |
| T22 | Kurumba | 7.54 | | | | 16 June - 01 July 2020 | 9.76 | 1.87 | 01- 13 Jul 2020 | 4.67 | 0.69 | 13-28 July 2020 | 10.1 | 2.31 | 28 July – 10 Aug 2020 | 3.94 | 0.99 | 10-24 Aug 2020 | 8.21 | 1.69 | 24 Aug – 08 Sep 2020 | 47.74 | 15.52 |
| T23 | Dhiyaneru | | 01-15 June 2020 | 28.34 * | 3.07 | 15-30 June 2020 | 34.69 | 4.34 | 30 June – 12 Jul 2020 | 8.39 | 1.07 | 13-28 July 2020 | 53.52 | 12.37 | 28 July – 10 Aug 2020 | 32.19 | 6.57 | 10-23 Aug 2020 | 8.32 | 1.51 | 23 Aug – 07 Sep 2020 | 504.39 | 132 |
| T24 | Kandinmafalhu | | 01-15 June 2020 | 13.22 * | 1.87 | 15-30 June 2020 | 14.86 | 2.46 | 30 June – 12 Jul 2020 | 7.94 | 2.46 | 13-28 July 2020 | 13.07 | 5.06 | 28 July – 10 Aug 2020 | 7.64 | 0.97 | 10-23 Aug 2020 | 5.48 | 0.39 | 23 Aug – 07 Sep 2020 | 80.06 | 26.23 |

* CDE placed the sediment traps at the start of Period 1 before dredging works for baseline levels at locations T21, T23 and T24 as these locations were not part of the background survey.
** missing traps




| | T-2 (Gulhifalhu N) | T-4 (Gulhifalhu NE) | T-6 (Gulhifalhu SE) | T-7 (Gulhifalhu SE) | T-9 (Gulhifalhu S) | T-11 (Villingili NW) |
|---|---|---|---|---|---|---|
| Baseline | Not measured | 2.22 | Not measured | Not measured | 332.4 | 10.49 |
| Period 1 | 18.63 | 263.04 | 11.09 | 4.96 | Not measured | 8.30 |
| Period 2 | 30.49 | 51.29 | 9.94 | 18.99 | Not measured | 11.77 |
| Period 3 | 88.545 | 36.02 | 61.41 | 16.78 | Not measured | 6.60 |
| Period 4 | 432.96 | 102.22 | 27.18 | 19.82 | 14.81 | 17.93 |
| Period 5 | Trap missing | 30.20 | 10.33 | 7.05 | 5.53 | 5.99 |
| Period 6 | 41.99 | 59.34 | 27.22 | 9.13 | 3.32 | 3.35 |
| Period 7 | 177.75 | 41.32 | 67.04 | 14.85 | 4.24 | 5.19 |

*Figure 3-3: Comparison of average sedimentation rates recorded at monitoring sites in Gulhifalhu and Villingili.*




| | T-19 (Feydhoo Finolhu SW) | T-20 (Olhuhaa S) | T-21 (Bangau S) | T-22 (Kurumba W) | T-23 (Dhiyaneru SW) | T-24 (Kandirmafalhu SW) |
|---|---|---|---|---|---|---|
| Baseline | 3.46 | 5.11 | 54.06 | 7.54 | 28.34 | 13.23 |
| Period 2 | 40.27 | 80.37 | 19.75 | 9.76 | 34.69 | 14.86 |
| Period 3 | 9.48 | 101.54 | 8.83 | 4.67 | 8.39 | 7.94 |
| Period 4 | 552.57 | 92.64 | 66.95 | 10.10 | 53.52 | 13.07 |
| Period 5 | 10.64 | 206.04 | 28.37 | 3.94 | 32.19 | 7.64 |
| Period 6 | 4.06 | 57.34 | 9.96 | 8.21 | 8.32 | 5.48 |
| Period 7 | 516.91 | 72.06 | 203.94 | 47.74 | 504.39 | 80.06 |

*Figure 3-4: Comparison of average sedimentation rate at monitoring sites near dredging site.*

Tidal currents are unique among the processes responsible for sediment transport and deposition because of their regularity, with the speed and direction varying with the frequency of the governing astronomical period. Figure 3-5 shows the tidal cycle in the project area during Period 1 to Period 7 deployment of sedimentation traps.

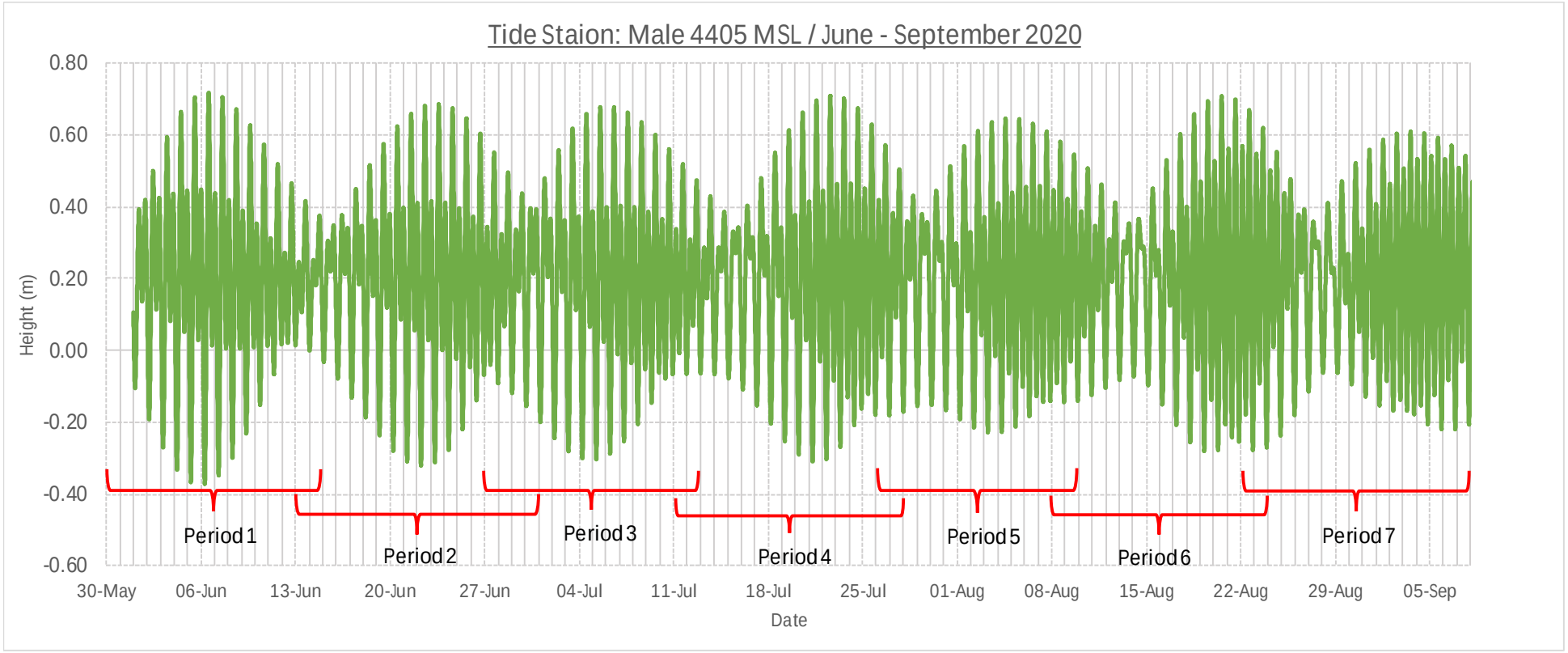



*Figure 3-5: Male Tide graph: June - September 2020.*

# 4 CORAL REEF HEALTH

CDE Consulting have been commissioned by Boskalis for the purpose of meeting EPA requirement for monitoring coral reef health at selected reefs within the impact area of the Phase I - Gulhifalhu Port development Project (Dredging, Reclamation and Revetment works). The same methodology as used for the baseline study in the EIA are applied.

The first baseline assessment of reefs near the project area was carried out between December 2019 – March 2020. A second baseline survey, of the locations that require monitoring during construction, was carried out from May – June 2020 just before the start of dredging and reclamation works with TSHD Fairway, to determine whether bleaching had taken place during the months of April – June, prior to commencement of construction.

The EIA requires 4-monthly coral reef health surveys during construction. However, due to the limited duration of the project, a construction survey has been performed already in late August 2020, of which results will be available in the next Environmental Report due to required data processing time.

## 4.1 METHOD

Two aspects are measured to determine coral reef health:

- Percent of live coral cover; and
- Fish species abundance and composition

- *Photo Quadrat Survey*
  At the survey site a 50 m transect line was deployed parallel to the reef at a constant depth. The composition of the benthic substrate along the transect was assessed by taking ten high-resolution images every 5 m (pictures covering 0.5 m2 of the seabed) along the transect. These were later analysed using CPCe. CPCe, or Coral Point Count with excel extension, developed by the National Coral Reef Institute, is software designed to determine coral community coverage and diversity using transect photographs. Underwater photographic frames are overlaid by a matrix of randomly generated points, and the fauna/flora of species or substrate type lying beneath each point is identified. 25 random points per picture were analysed to characterize the substrate composition (sample size: 250 points per transect).
- *Fish Census*
  A category-based methodology will be adopted to estimate fish abundance and the mean number of fish per category and observation will be extracted to estimate species and family abundance. The categories used to estimate abundance are displayed in Table 4.

*Table 4: Fish Abundance categories*

| CATEGORY | NUMBER OF FISH |
|---|---|
| 1 | 1 |
| 2 | 2-4 |
| 3 | 5-16 |
| 4 | 17-64 |
| 5 | 65-256 |

- *Visual Snorkelling Survey*
  Visual snorkelling surveys were carried out at select locations of the lagoon and reef of Gulhifalhu. General status of the site was recorded, special attention was given to types of corals and fishes present at these sites and the environmental conditions that could affect growth such as suspended solids, depth, and other threats to coral life.

## 4.2 LOCATIONS

GPS coordinates, depth of the coral reef survey site and survey timeline dates are provided in Table 5.

*Table 5: Coral reef assessment sites and dates*

| Description | Coordinates | | Period 1 Survey Date | Period 2 Survey Date | Period 3 Survey Date |
|---|---|---|---|---|---|
| | Latitude | Longitude | | | |
| T-1 (3 m) - Gulhifalhu | 4.187276°° | 73.463960° | 24-Dec-19 | | |
| T-1 (10 m) - Gulhifalhu | 4.187276°° | 73.463960° | 24-Dec-19 | | |
| T-2 (5 m) - Gulhifalhu | 4.187850° | 73.468400° | 24-Dec-19 | 24-May-20 | August 2020 |
| T-3 (3 m) - Gulhifalhu | 4.186494° | 73.471825° | 24-Dec-19 | | |
| T-4 (3 m) - Gulhifalhu | 4.182291° | 73.475565° | 23-Dec-19 | 24-May-20 | August 2020 |
| T-4 (10 m) - Gulhifalhu | 4.182291° | 73.475565° | 24-Dec-19 | 24-May-20 | August 2020 |
| T-5 (2 m) - Gulhifalhu | 4.178903° | 73.477620° | 25-Dec-19 | | |
| T-6 (3.3 m) - Gulhifalhu | 4.172121° | 73.478178° | 25-Dec-19 | 24-May-20 | August 2020 |
| T-7 (3.5 m) - Gulhifalhu | 4.172238° | 73.474390° | 25-Dec-19 | | |
| T-8 (5 m) - Gulhifalhu | 4.173332° | 73.467003° | 28-Dec-19 | 23-May-20 | August 2020 |
| T-8 (10 m) - Gulhifalhu | 4.173332° | 73.467003° | 25-Dec-19 | 23-May-20 | August 2020 |
| T-9 (3.3 m) - Gulhifalhu | 4.174529° | 73.461196° | 25-Dec-19 | 17-May-20 | August 2020 |
| T-9 (10m) - Gulhifalhu | 4.174529° | 73.461196° | 28-Dec-19 | 17-May-20 | August 2020 |
| T-10 (5 m) - Gulhifalhu | 4.176124° | 73.454658° | 23-Dec-19 | 23-May-20 | August 2020 |
| T-10 (10 m) - Gulhifalhu | 4.176124° | 73.454658° | 23-Dec-19 | 23-May-20 | August 2020 |
| T-11 (2 m) - Villingili | 4.176084° | 73.483121° | 05-Jan-20 | 25-May-20 | August 2020 |
| T-11 (10 m) – Villingili | 4.176084° | 73.483121° | 05-Jan-20 | 25-May-20 | August 2020 |
| T-12 (2.2 m) – Bodugiri | 4.191207° | 73.451788° | 01-Jan-20 | 25-May-20 | August 2020 |
| T-13 (2.9 m) - Thilafushi | 4.181241° | 73.425965° | 01-Jan-20 | 17-May-20 | August 2020 |
| T-13 (10 m) - Thilafushi | 4.181241° | 73.425965° | 01-Jan-20 | 17-May-20 | August 2020 |
| T-14 (3 m) - Centara Ras Fushi Resort & Spa | 4.203525° | 73.409940° | 28-Dec-19 | 23-May-20 | August 2020 |
| T-14 (10 m) - Centara Ras Fushi Resort & | 4.203525° | 73.409940° | 28-Dec-19 | 23-May-20 | August 2020 |
| T-15 (10 m) - Giraavaru Kuda Haa | 4.216613° | 73.415926° | 31-Dec-19 | 20-May-20 | August 2020 |
| T-16 (4 m) - Uthuru Thila Falhu | 4.221044° | 73.399886° | 04-Mar-20 | | |
| T-17 (2.5 m) - Kohdhipparu Finolhu | 4.249320° | 73.379084° | 05-Jan-20 | | |
| T-17 (10 m) - Kohdhipparu Finolhu | 4.249320° | 73.379084° | 05-Jan-20 | | |
| T-18 (1.8 m) - Grand Park Kohdhipparu | 4.260131° | 73.381624° | 13-Jan-20 | | |
| T-18 (10 m) - Grand Park Kohdhipparu | 4.260131° | 73.381624° | 13-Jan-20 | | |
| T-19 (3 m) - Feydhoo Finolhu | 4.211618° | 73.481556° | 04-Mar-20 | 26-May-20 | August 2020 |
| T-19 (10 m) - Feydhoo Finolhu | 4.211618° | 73.481556° | 04-Mar-20 | 26-May-20 | August 2020 |
| T-20 (2.5 m) - Olhuhali | 4.217497° | 73.458640° | 31-Dec-19 | 9-June-20 | August 2020 |
| T-20 (10 m) - Olhuhali | 4.217497° | 73.458640° | 31-Dec-19 | 9-June-20 | August 2020 |
| T-21 (2.5 m) - Bangau | 4.222450° | 73.429949° | 31-Dec-19 | 1-Jun-20 | August 2020 |
| T-22 (2.5 m) - Kurumba Maldives | 4.226931° | 73.517007° | 06-Jan-20 | 22-May-20 | August 2020 |
| T-22 (10 m) - Kurumba Maldives | 4.226931° | 73.517007° | 06-Jan-20 | 22-May-20 | August 2020 |
| T-23 (3.5 m) - Reef (4.231697°, 73.471358°) | 4.231697° | 73.471358° | 31-Dec-19 | 1-Jun-20 | August 2020 |
| T-24 (3 m) - Reef (4.238414°, 73.457170°) | 4.238414° | 73.457170° | 31-Dec-19 | 1-Jun-20 | August 2020 |
| T-25 (3.5 m) - Papaya Reef | 4.253588° | 73.430684° | 31-Dec-19 | | |
| T-26 (2 m) – Reef | 4.284787° | 73.398538° | 05-Jan-20 | | |
| T-27 (1.5 m) - Baros Maldives | 4.281752° | 73.426863° | 05-Jan-20 | | |
| T-27 (10 m) - Baros Maldives | 4.281752° | 73.426863° | 05-Jan-20 | | |
| T-28 (3 m) - Banana Reef | 4.239304° | 73.531229° | 01-Jan-20 | 3-Jun-20 | August 2020 |
| T-28 (10 m) - Banana Reef | 4.239304° | 73.531229° | 01-Jan-20 | 3-Jun-20 | August 2020 |
| T-29 - Sheraton Full moon Resort & Spa | 4.245960° | 73.542605° | No Permit | | |
| T-30 (5 m) - Maagiri | 4.262919° | 73.532168° | 1-Jan-20 | | |
| T-30 (10 m) - Maagiri | 4.262919° | 73.532168° | 1-Jan-20 | | |
| T-31 (1.5 m) - Malahini Kuda Bandos | 4.264967° | 73.499112° | 6-Jan-20 | | |
| T-32 (2.7 m) - Bandos Island Resort | 4.271971° | 73.493860° | 2-Feb-20 | | |
| T-32 (10 m) - Bandos Island Resort | 4.271971° | 73.493860° | 2-Feb-20 | | |
| T-33 (11.5 m) - Lankan Thila | 4.280606° | 73.533565° | 6-Jan-20 | | |
| T-34 (2 m) - Gili Lankanfushi Maldives | 4.294634° | 73.552659° | 7-Jan-20 | | |
| T-34 (10 m) - Gili Lankanfushi Maldives | 4.294634° | 73.552659° | 7-Jan-20 | | |
| T-35 (9 m) - Okobe Thila | 4.296084° | 73.511775° | 6-Jan-20 | | |
| T-36 (2.5 m) - Thulhagiri Island Resort | 4.307995° | 73.488226° | 13-Jan-20 | | |
| T-36 (10 m) - Thulhagiri Island Resort | 4.307995° | 73.488226° | 13-Jan-20 | | |

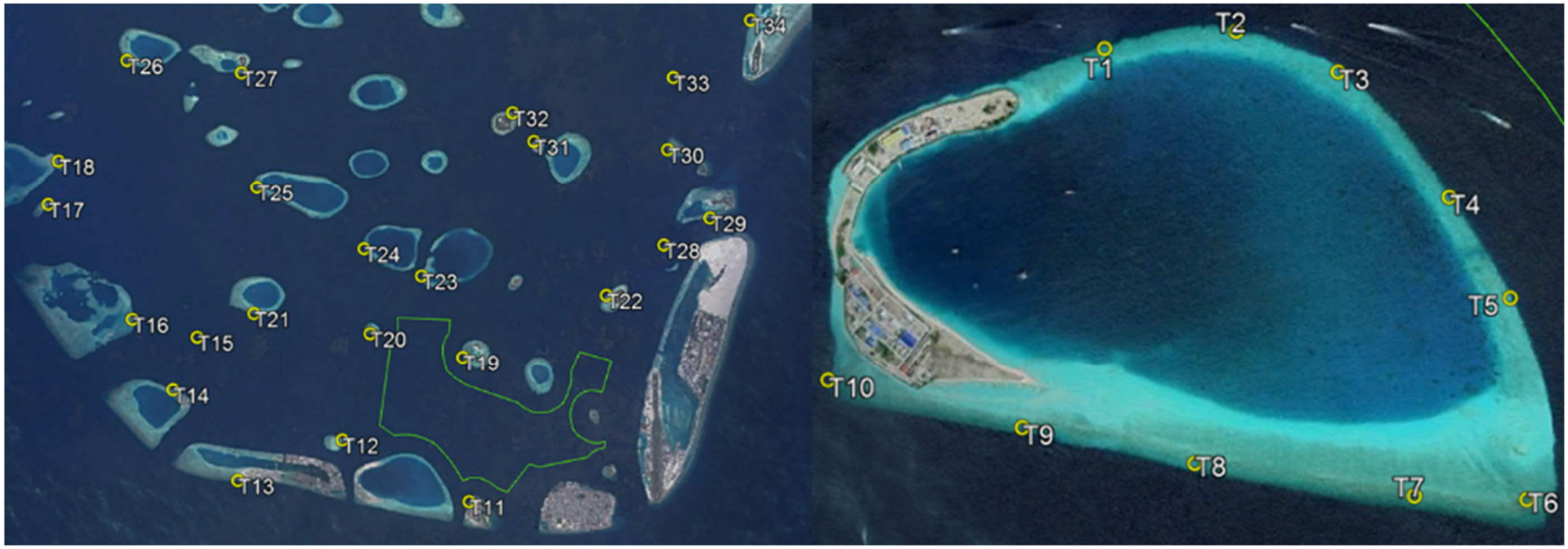



*Figure 4-1: Coral reef health monitoring locations.*

## 4.3 RESULTS

Summary of coral cover and fish survey at reefs near dredging and reclamation area during the reporting period is presented in Table 6 - Table 7 and Figure 4-2 - Figure 4-3.

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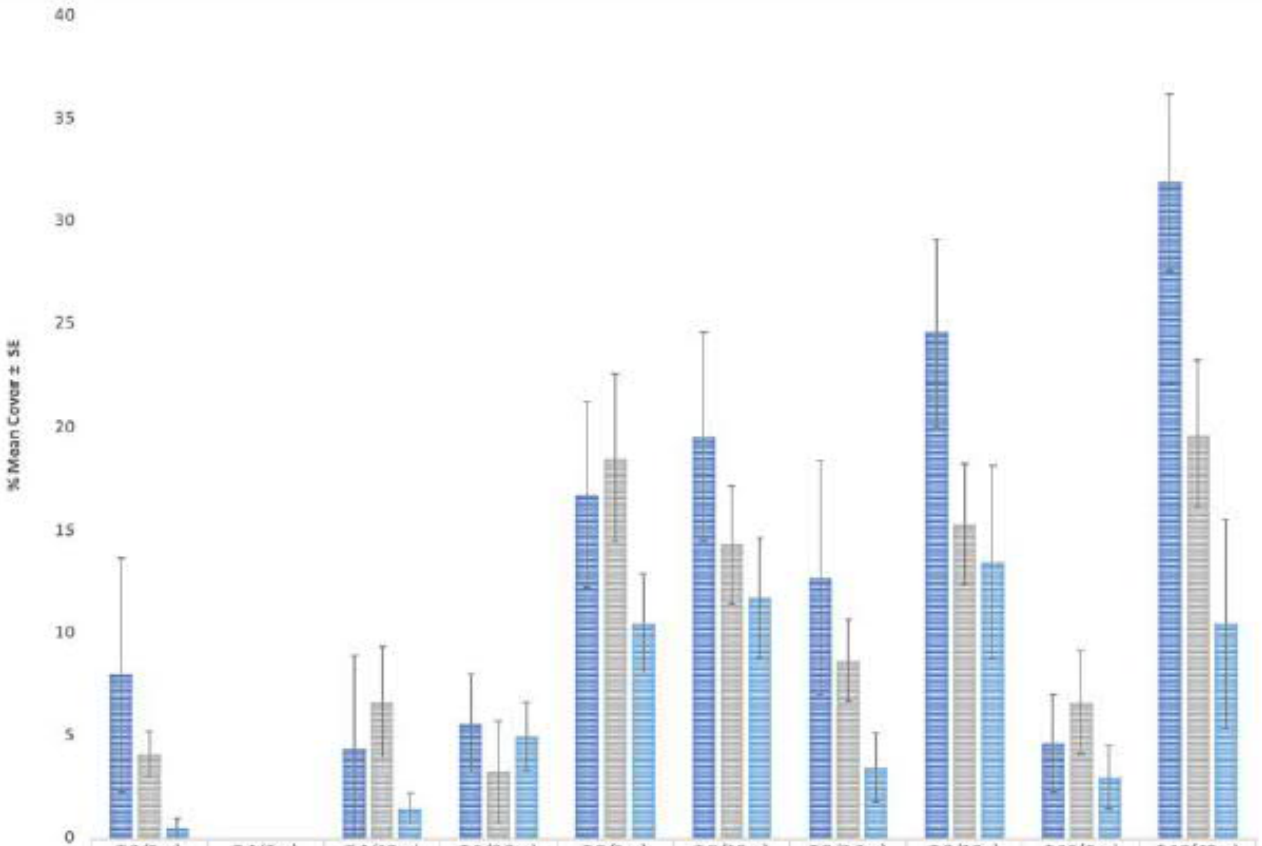
*Table 6: May-June 2020 Overview of coral cover and fish survey at reefs near dredging and reclamation area*

| Survey Site | | Depth | Live Coral Cover | | Fish | | Remarks |
|---|---|---|---|---|---|---|---|
| Transect | Description | (m) | % | ±SE | Species Richness | Fish per $m^2$ | |
| T-2 | Gulhifalhu N | 5 | 4.13 | 1.1 | 22 | 11.12 | No significant change in coral coverage compared to the initial survey. |
| T-4 | Gulhifalhu NE | 3 | 0 | 0 | 18 | 3.4 | No live coral was recorded during first and second baseline surveys. |
| T-4 | Gulhifalhu NE | 10 | 6.69 | 2.69 | 16 | 12.97 | No significant change in coral coverage compared to the initial survey. |
| T-6 | Gulhifalhu SE | 3.3 | 3.27 | 2.52 | 27 | 5.42 | No significant change in coral coverage compared to the initial and April 2020 survey with 0.36% live coral in May 2020 showed signs of bleaching |
| T-8 | Gulhifalhu S | 5 | 18.56 | 4.04 | 10 | 0.75 | No significant change in coral coverage compared to the initial survey. |
| T-8 | Gulhifalhu S | 10 | 14.33 | 2.89 | 19 | 21.92 | The second baseline carried out in May 2020 recorded a slight decline in healthy live coral cover 2.56%±0.98SE of being partially bleached. |
| T-9 | Gulhifalhu S | 3.3 | 8.73 | 2 | 20 | 0.87 | No significant change in coral coverage compared to the initial survey with 1.09% of corals shows signs of being stressed due to bleaching. |
| T-9 | Gulhifalhu S | 10 | 15.38 | 2.94 | 18 | 0.85 | Survey shows slight decline in coral coverage compared to initial surveywith0.74% of corals shows signs of being stressed due to bleaching. |
| T-10 | Gulhifalhu SW | 5 | 6.65 | 2.52 | 21 | 13.03 | Live coral cover at this depth was very low. No significant change in coral coverage compared to the initial survey. |
| T-10 | Gulhifalhu SW | 10 | 19.71 | 3.55 | 22 | 23.3 | The second baseline survey shows a decline in coral coverage. Recently bleached corals made up about 1.14% along the transect line. |
| T-11 | Villingili | 2 | 5.54 | 1.11 | 14 | 3.34 | Live coral cover at this depth was very low. No significant change in coral coverage compared to the initial survey. |
| T-11 | Villingili | 10 | 9.59 | 0.81 | 37 | 12.38 | Live coral cover at this depth was low. No significant change in coral coverage compared to the initial survey. |
| T-12 | Bodugiri | 2.2 | 4.73 | 0.91 | 16 | 3.37 | Live coral cover at this depth was low. No significant change in coral coverage compared to the initial survey. |
| T-13 | Thilafushi | 2.9 | 19.64 | 4.53 | 30 | 1.71 | No significant change in coral coverage compared to the initial survey. |
| T-13 | Thilafushi | 10 | 12 | 1.62 | 26 | 4.212 | A significant change at this depth during the second baseline study was an increase in sand cover covering the rocky pavement bottom. |
| T-14 | Centara Ras Fushi | 3 | 13.22 | 3.32 | 32 | 0.53 | No significant change in coral coverage compared to the initial survey. |
| T-14 | Centara Ras Fushi | 10 | 9.91 | 3.25 | 36 | 11.44 | No significant changes was observed at this depth except for a slight increase in Macroalgae cover. |
| T-15 | Kuda Haa | 10 | 13.53 | 2.17 | 19 | 44.36 | No significant change in coral coverage compared to the initial survey. |
| T-19 | Feydhoo Finolhu | 3 | 4.49 | 1.57 | 36 | 10.7 | Live coral coverage at this site recorded was low during the initial baseline survey. Signs of coral stress was observed at this site with partial bleached corals. |
| T-19 | Feydhoo Finolhu | 10 | 1.85 | 1.01 | 32 | 10.65 | Live coral coverage at this depth was low during the initial baseline survey. The second baseline survey shows that the coverage slightly declined. |
| T-20 | Olhuhali | 2.5 | 10.68 | 3.27 | 14 | 0.59 | The second baseline shows a slight increase in live coral cover. |
| T-20 | Olhuhali | 10 | 30.28 | 4.4 | 13 | 2.73 | No significant change in coral coverage compared to the initial survey. Recently bleached corals made up about 2.66% along the transect line. |
| T-21 | Bangau | 2.5 | 5.58 | 1.87 | 13 | 0.31 | Live coral coverage at this site recorded was 16%±3.48SE in December 2019 and had further declined to 5.58%±1.87SE during second survey in June 2020. |
| T-22 | Kurumba | 2 | 2.21 | 1.01 | 32 | 0.53 | Live coral coverage at this depth was very low during the initial baseline survey. The second baseline survey shows no significant change in coral coverage. |
| T-22 | Kurumba | 10 | 4.36 | 2.12 | 33 | 1.31 | No Significant difference can be observed between live coral coverage in initial baseline survey |
| T-23 | Reef | 3.5 | 7.73 | 2.21 | 30 | 1.29 | The second baseline survey shows slight decline in coral cover with 0.73% recently bleached corals along the transect line |
| T-24 | Reef | 3 | 4.73 | 1.3 | 36 | 1.36 | Live coral cover had slightly declined with 0.73% of corals being recently bleached along transect |
| T-28 | Banana Reef | 3 | 2.18 | 1.25 | 16 | 43.69 | Live coral coverage at this depth was very low during the initial baseline survey. The second baseline survey shows no significant change in coral coverage |
| T-28 | Banana Reef | 10 | 5.23 | 2.34 | 29 | 1.43 | Live coral coverage at this depth was very low during the initial baseline survey. The second baseline survey shows no significant change in coral coverage |

*Table 7: August 2020 Overview of coral cover and fish survey at reefs near dredging and reclamation area*

| Survey Site | | Depth | Live Coral Cover | | Fish | Remarks |
|---|---|---|---|---|---|---|
| Transect | Description | (m) | % | ±SE | Species Richness | |
| T-2 | Gulhifalhu N | 5 | 0.5 | - | 24 | Live coral at this site is observed to have decreased to negligible levels in the latest survey in August 2020 as sand has covered up much of the area. |
| T-4 | Gulhifalhu NE | 3 | 0 | 0 | 16 | No live coral was recorded during first and second baseline surveys. |
| T-4 | Gulhifalhu NE | 10 | 1.5 | 0.76 | 35 | In August 2020, live coral cover seemed to be impacted by influx of sediment down the reef slope. |
| T-6 | Gulhifalhu SE | 3.3 | 5 | - | 27 | No significant difference can be observed between live coral coverage recorded since the baseline survey in December 2019 and subsequent monitoring surveys. |
| T-8 | Gulhifalhu S | 5 | 10.5 | 2.41 | 13 | Monitoring surveys in August 2020 shows a decline in mean live coral cover compared to the previous surveys. |
| T-8 | Gulhifalhu S | 10 | 11.78 | 2.93 | 14 | No significant changes in live coral coverage. |
| T-9 | Gulhifalhu S | 3.3 | 3.5 | 1.67 | 37 | A declining trend at this site was observed after the surveys in August 2020 compared to the previous surveys. |
| T-9 | Gulhifalhu S | 10 | 13.5 | 4.72 | 62 | No significant changes in live coral coverage. |
| T-10 | Gulhifalhu SW | 5 | 3 | 1.53 | 47 | No coral bleaching or related stress was recorded during the surveys in August 2020. |
| T-10 | Gulhifalhu SW | 10 | 10.5 | 5.08 | 50 | No coral bleaching was observed during the recent survey. |
| T-11 | Villingili | 2 | 1 | 1 | 49 | Surveys carried out in August 2020 shows that coral coverage further declined compared to the previous surveys. |
| T-11 | Villingili | 10 | 2.5 | 1.12 | 48 | The survey trip in August 2020 shows decreased percentage cover compared to the previous surveys. |
| T-12 | Bodugiri | 2.2 | 3 | 1.33 | 49 | Surveys in August 2020 shows that sediment cover at this site has decreased to 1%±1SE, exposing the bare rocky pavement. |
| T-13 | Thilafushi | 2.9 | 9.38 | 4.95 | 49 | Live coral cover declined slightly during the recent surveys in August 2020. |
| T-13 | Thilafushi | 10 | 7.63 | 2.6 | 47 | A declining trend in live coral cover was observed as the recent survey trip in August 2020. |
| T-14 | Centara Ras Fushi | 3 | 3 | 1.11 | 53 | Percentage of live coral is observed to decreased in August 2020 compared to the previous surveys. |
| T-14 | Centara Ras Fushi | 10 | 12.78 | 4.65 | 55 | No significant changes in live coral coverage. |
| T-15 | Kuda Haa | 10 | 19 | 5.26 | 52 | No significant changes in live coral coverage. |
| T-19 | Feydhoo Finolhu | 3 | 1 | 0.67 | 58 | Live coral coverage was observed to have reduced in August 2020. |
| T-19 | Feydhoo Finolhu | 10 | 1.5 | 1.5 | 60 | No significant changes in live coral coverage. |
| T-20 | Olhuhali | 2.5 | 6 | - | 49 | No significant changes in live coral coverage. |
| T-20 | Olhuhali | 10 | 18.5 | 7.92 | 49 | Surveys in August 2020 shows that live coral cover have decreased compared to previous surveys. |
| T-21 | Bangau | 2.5 | 3 | 1.33 | 48 | No significant changes in live coral coverage. |
| T-22 | Kurumba | 2 | 7 | 1.86 | 32 | Surveys in August 2020 shows a slight increase in live coral cover compared to the previous surveys. |
| T-22 | Kurumba | 10 | 10.5 | 5.08 | 60 | Surveys in August 2020 shows a slight increase in live coral cover compared to the previous surveys. |
| T-23 | Reef | 3.5 | 3 | 0.82 | 30 | Surveys show a declining trend in coral cover compared to the previous surveys. |
| T-24 | Reef | 3 | 22.5 | 7.46 | 27 | Surveys in August 2020 show a significant increase compared to the previous surveys. |
| T-28 | Banana Reef | 3 | 0.5 | - | 48 | No significant changes in live coral coverage. |
| T-28 | Banana Reef | 10 | 2 | - | 51 | No significant changes in live coral coverage. |




| | T-2 (5 m) | T-4 (3 m) | T-4 (10 m) | T-6 (3.3 m) | T-8 (5 m) | T-8 (10 m) | T-9 (3.3 m) | T-9 (10m) | T-10 (5 m) | T-10 (10 m) |
|---|---|---|---|---|---|---|---|---|---|---|
| Dec 19-Mar 20 | 8 | 0 | 4.4 | 5.62 | 16.8 | 19.6 | 12.73 | 24.62 | 4.67 | 31.92 |
| May-Jun 20 | 4.11 | 0 | 6.69 | 3.27 | 18.56 | 14.33 | 8.73 | 15.38 | 6.65 | 19.71 |
| Aug-20 | 0.5 | 0 | 1.5 | 5 | 10.5 | 11.78 | 3.5 | 13.5 | 3 | 10.5 |

*Figure 4-2: Comparison of percentage mean coral cover along the transects at Gulhifalhu Reef during the two baseline and one during-construction monitoring surveys.*

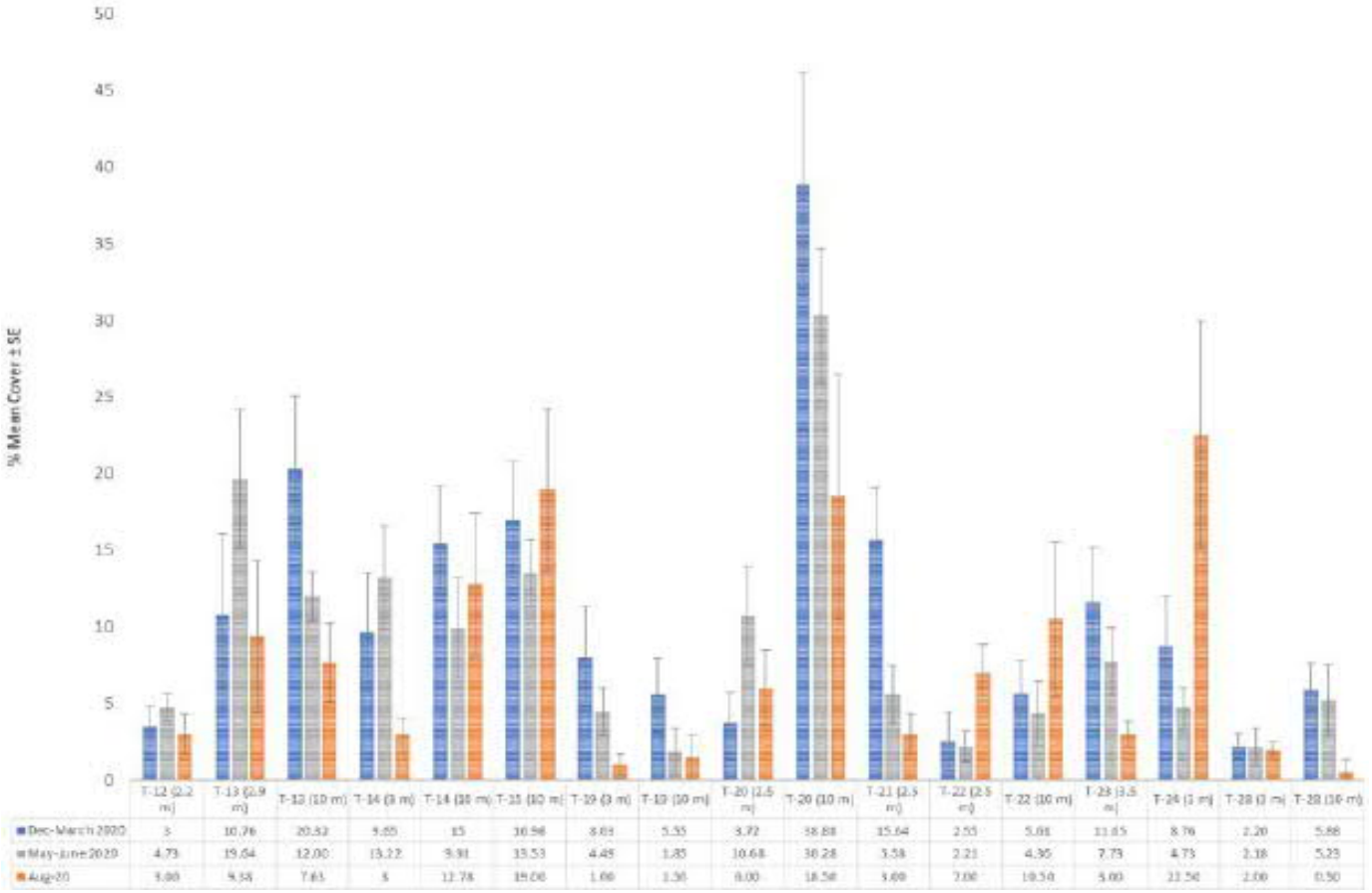



*Figure 4-3: Comparison of percentage mean live coral cover at sites near sand borrow area during baseline and monitoring surveys.*

## 4.4 CORAL RELOCATION

Reefscapers have been commissioned by Boskalis as an additional CSR initiative to mitigate impacts caused by the Phase I - Gulhifalhu Port development Project (Dredging, Reclamation and Revetment works). Please note that this is an additional initiative, complementary to MNPHI's decision to mitigate for marine habitat loss and/or degradation through funding conservation measures at other protected marine site(s) in Maldives as per section 8.1.4, item 3.c of the EIA.

Coral relocations were conducted from the 29th May until 15th June 2020. The corals were taken off from the coral heads on south eastern and southern reef flat part within the Gulhifalhu lagoon and were relocated at the Sheraton Full Moon resort dive, channel and lagoon area and at the Furanafushi northern reef flat with approximate depth of 5m and 1m to 3m respectively. Table 8 shows the overview of the harvested corals, their family, sizes, harvest and relocation areas.

In total, approximately 7500 colonies were moved, and hundreds of fragments were collected.

*Table 8: Overview of the Daily Coral Relocation from the 29th May until 15th June 2020*

| **Daily Coral Relocation Report** | | |
|---|---|---|
| **Type of coral harvested** *(e.g. branching, massive, etc.)* | - Tabular, digitate, branching, | - massives and submassives |
| **Coral family** *(e.g. Acropora, Porites, etc.)* | - Acropora, Pocillopora | - Porites, Psammocora |
| Average range of coral colonies or fragments harvested per day | - 200 to 634 colonies, large number of fragments | |
| Average size of coral colonies or fragments harvested per day | - 30-40 cm | |
| Approximate location within Gulhifalhu lagoon | - Coral heads on south eastern and northern part of the lagoon<br>- Southern reef flat | |
| Type of artificial structure corals will be attached to *(e.g. frame, table, plugs, etc.)* | - colonies to be attached on frames<br>- colonies to be installed on northern reef flat and existing reef structure | |
| Location corals will be relocated to *(e.g. N/W/S/E side of resort/reef, average depth, etc.)* | - resort dive, channel and lagoon area, 5 m depth<br>- Furanafushi northern reef flat, depth 1 to 3 m | |

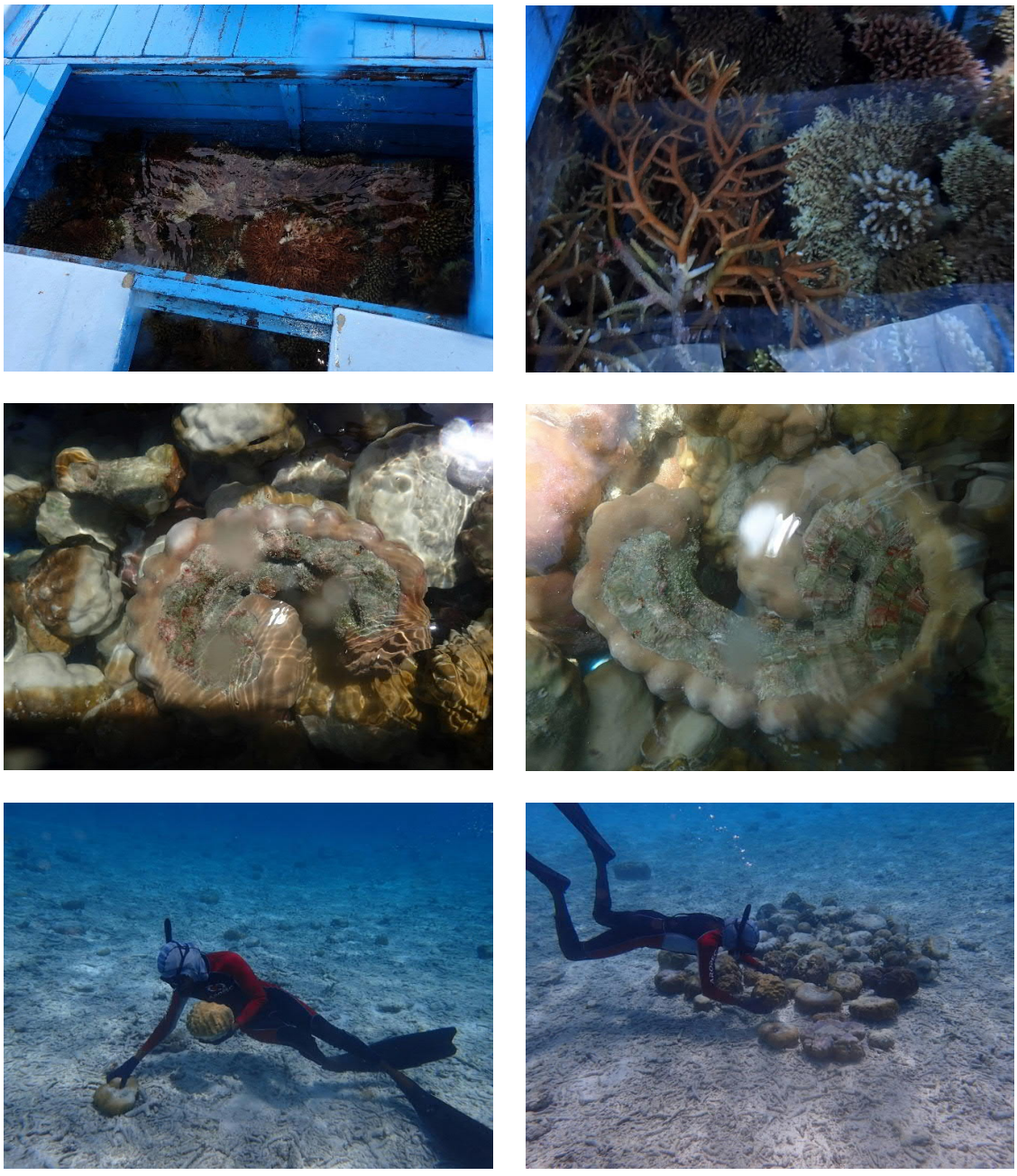


*Figure 4-4: Coral relocation conducted on the 02nd June 2020.*






*Figure 4-5 Relocated corals at Sheraton Full Moon recipient site, June 2020*

# 5 EROSION AND COASTAL CHANGES

CDE Consulting have been commissioned by Boskalis to conduct beach profile surveys and mapping of shorelines for the Phase I - Gulhifalhu Port development Project (Dredging, Reclamation and Revetment works). This section provides the results of the coastal assessment of Villingili (Vilimalé) in August of 2020 in comparison with the baseline assessment which was carried out in May 2020.

## 5.1 METHODOLOGY

The coastal changes are assessed using shoreline surveys and by measuring the beach profile at pre-defined locations.

- Shoreline Surveys - Shorelines were mapped using geo-referenced, high-resolution ortho-image created using aerial images taken with Unmanned Aerial Vehicle (UAV). The flight altitude was between 150 - 220 meters. Shoreline surveys are aimed at identifying recession of the low and high tide lines which may be caused by scouring and erosion.
- Beach Profiling - Beach profiles were measured using an automatic level. Beach profiles help to calculate the degree of erosion at the measured site and provides an estimate for any olumetric loss of beach sand from the cell. Beach profiles also capture any offshore transport sediment within the beach cell. The locations had been marked using landscape features during the baseline surveys.

## 5.2 LOCATIONS

Beach profile monitoring is required at 9 locations (Table 3-1) of Villingili in the approved Environmental Monitoring Plan for the project. These locations are shown in Figure 5-1. The assessment contains the results of beach profile surveys and the mapping of shorelines on the island of Villingili, in order to establish baseline conditions which was conducted on 27th May 2020.

*Table 9: GPS coordinates of Beach Profile locations*

| Beach Profile ID | Island | GPS Coordinate | |
|---|---|---|---|
| | | X | Y |
| BP16 | Villigili | 461162.2 | 331799.5 |
| BP17 | Villigili | 461232.1 | 331771.6 |
| BP18 | Villigili | 461266.2 | 331687.3 |
| BP19 | Villigili | 461542.7 | 331599.6 |
| BP20 | Villigili | 461646.9 | 331654.6 |
| BP21 | Villigili | 461699.8 | 331712.8 |
| BP22 | Villigili | 461514.4 | 332104.6 |
| BP23 | Villigili | 461383.4 | 332112.5 |
| BP24 | Villigili | 461254.4 | 332099.9 |

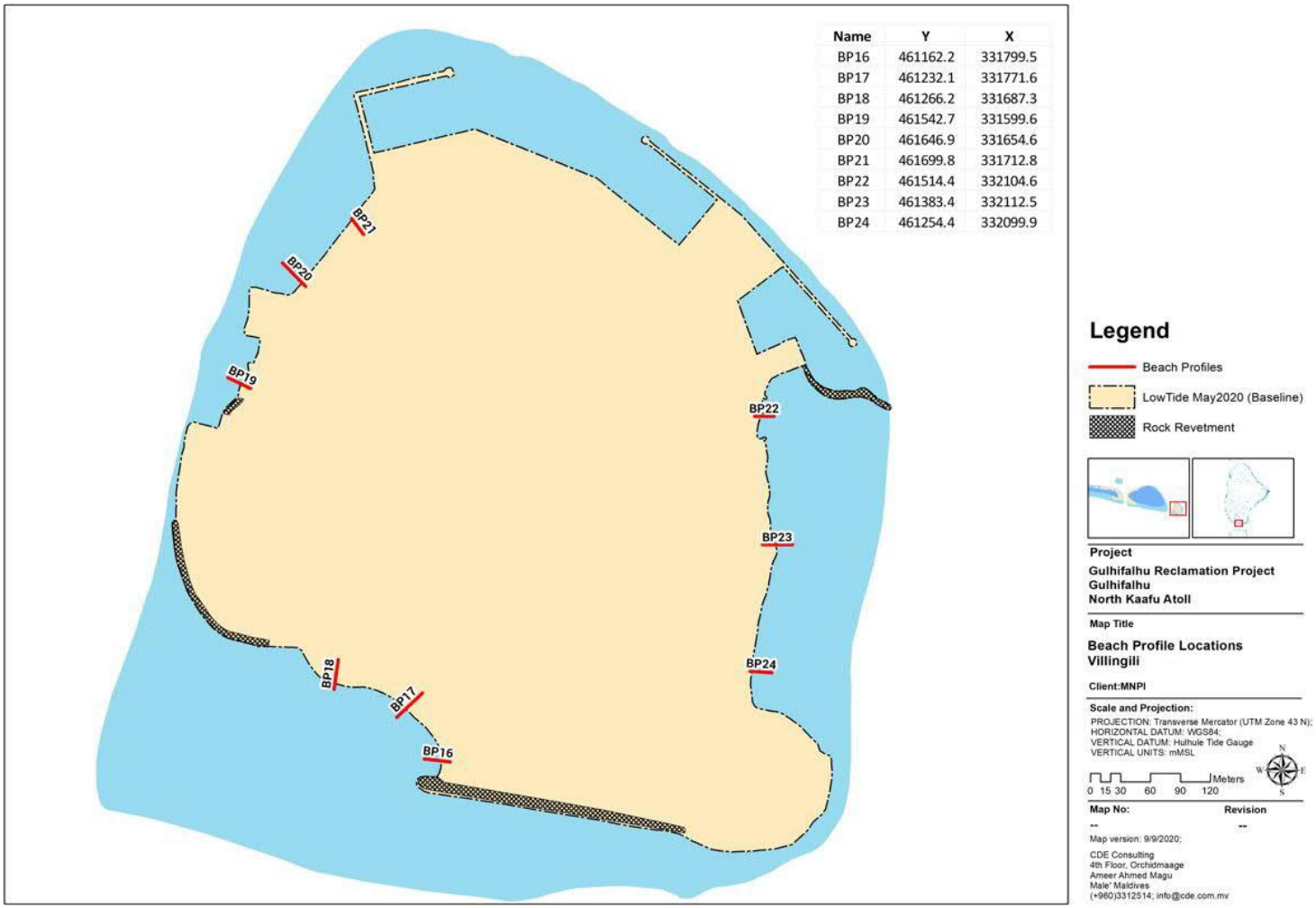



*Figure 5-1: Villingili, North Kaafu Beach Profile Locations.*

## 5.3 RESULTS

### *5.3.1 Shorelines*

Description of Villingili shoreline is shown in Figure 5-2.

From the surveys carried out it can be seen that there have not been any drastic changes to the shorelines of Villingili between May 2020 and August 2020.

However, significant shift of beach sand towards the southern end of South West Beach has occurred during the period. The low tide line has receded by 8 meters between May 2020 and August 2020 landwards at the point of greatest change (Figure 5-3). This is likely to be caused by longshore drift, due to the westerly waves incident on Villingili during the South-West monsoon. The shift of sand towards the southern end of the beach has led to the hightide to flare out seawards by 6-7 m. The trend of sand towards south end of the beach is expected continue till the end of South-West monsoon.

Similar change movement of sand towards the southern end has been observed at North West Beach as well, albeit to a smaller degree, as it is more sheltered from the westerly waves than the South Beach. In both cases, the changes can be attributable to seasonal change and is likely to be reversed during the north-eastern monsoon. In both cases the changes seem to be localized within the beach cell and there has been no observable loss of sediment from the cell.

No changes in shorelines were observed at the East Beach and West Beach. The shoreline map has been provided in Appendix A.

### *5.3.2 Beach Profiles*

The comparison of beach profiles between the baseline survey of May 2020 and the recent survey of August 2020 are shown in Figure 5-5 to Figure 5-13.

Little to no changes were observed in the profiles P22, P23 and P24 taken on the East Beach.

Of the 3 profiles taken on the South Beach, the northernmost profile P18 show the greatest change. This is due to the south ward drift of sand within the beach cell. The hightide line at P18 has receded landwards by 6 m. Correspondingly, at P17, the hightide line of August 2020 show a seaward shift due to the accretion of sand moving in from the northern end of the beach. P16 show no significant changes.

No changes were observed at P19, located at the West Beach. Despite facing west, absence of changes in shorelines and beach profile may be due to the lack of fine sand, which is more susceptible to drift.

The profiles P20 and P21 were taken on the North West Beach. Similar to other South West Beach of Villingili, sand has drifted towards the southern end of the beach. The extent of the landward recession of hightide line observed at P21 is similar to the shift of the hightide line, seawards at P20, indicating longshore drift. As discussed above, this can be attributed to the predominant wave direction being westerly, during this period of the year. The sand is expected to drift towards the north-end when predominant wind direction changes to north-east.

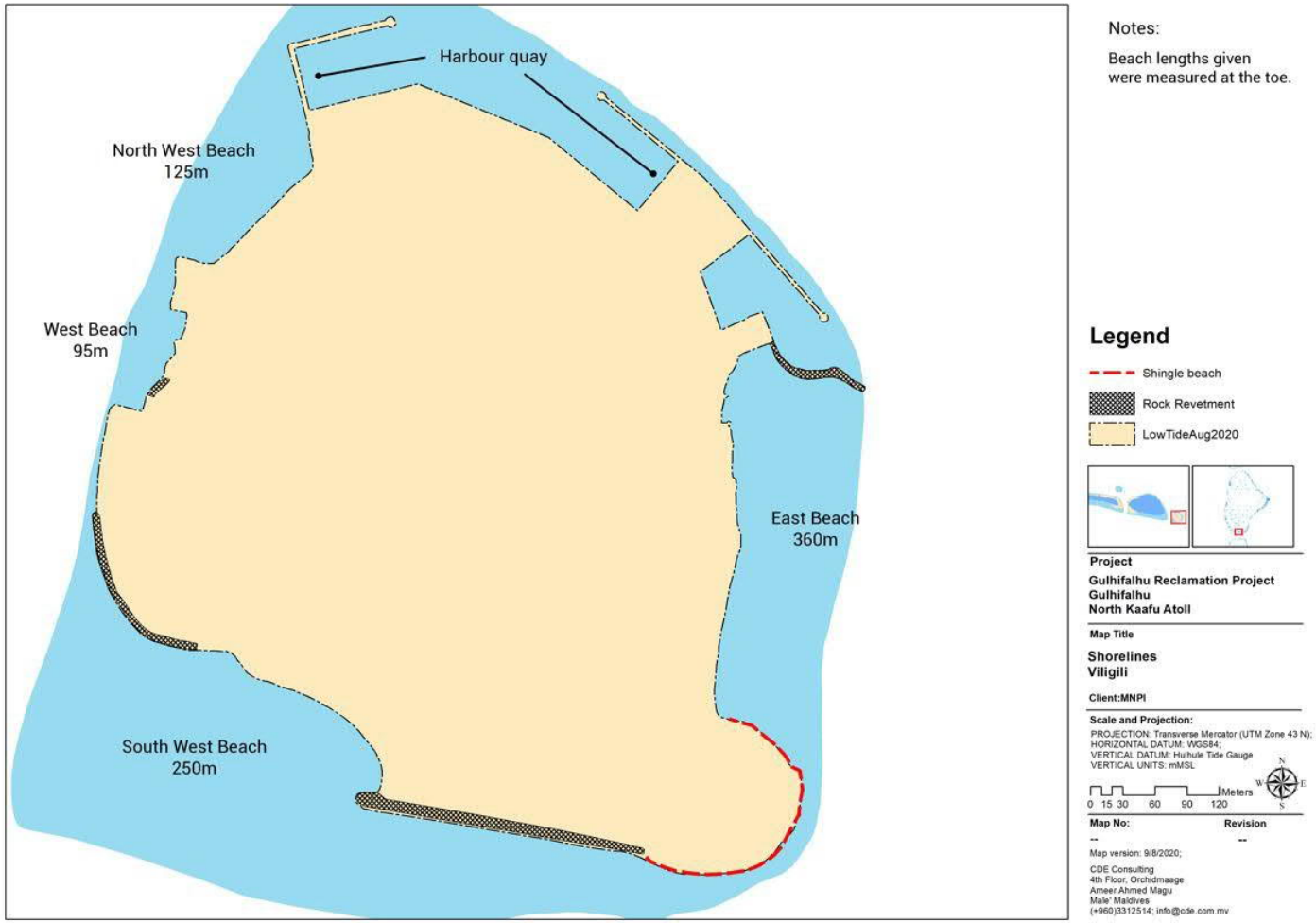



*Figure 5-2: Description of Villingili shorelines.*

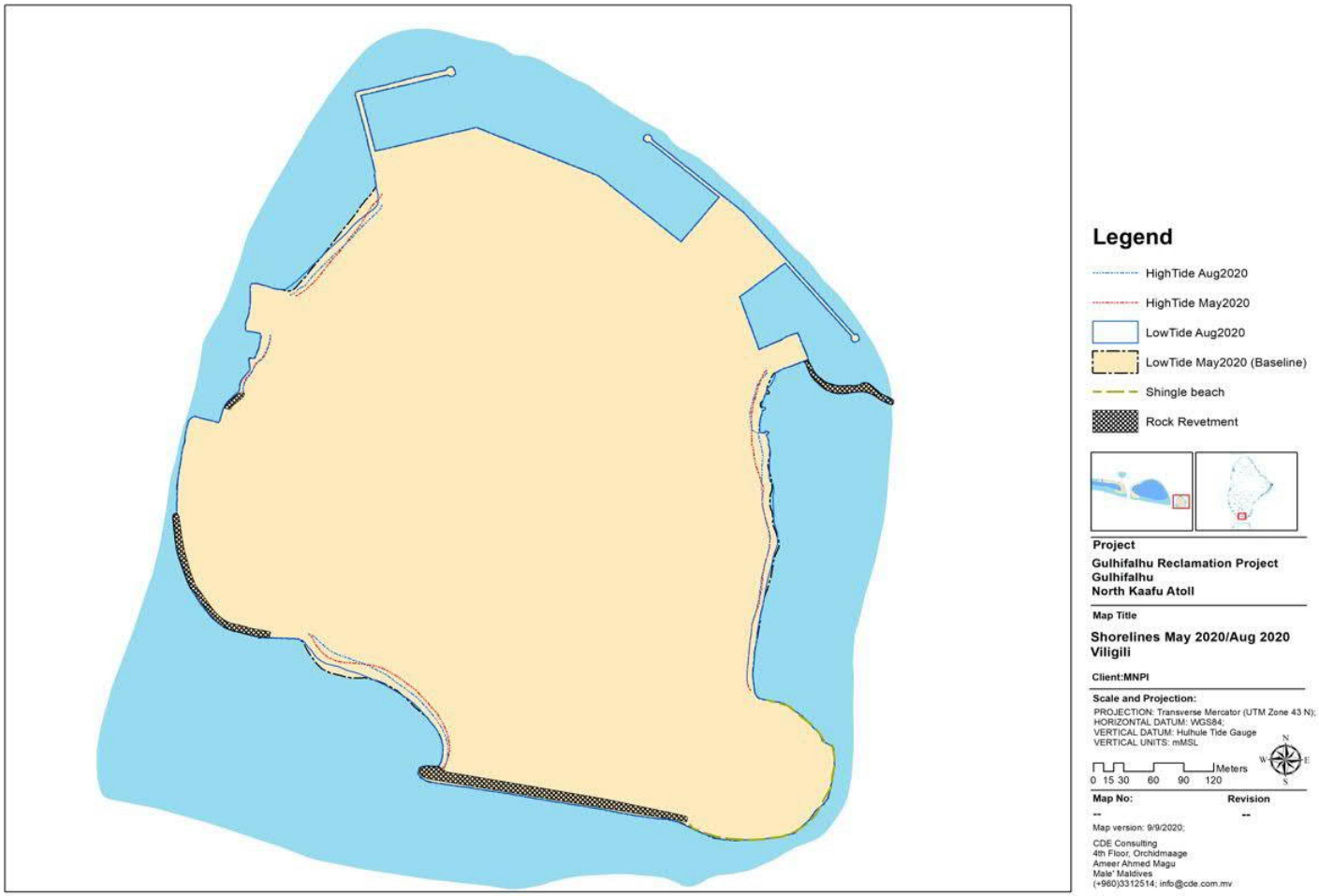



*Figure 5-3: Shoreline comparison May 2020/Aug 2020.*

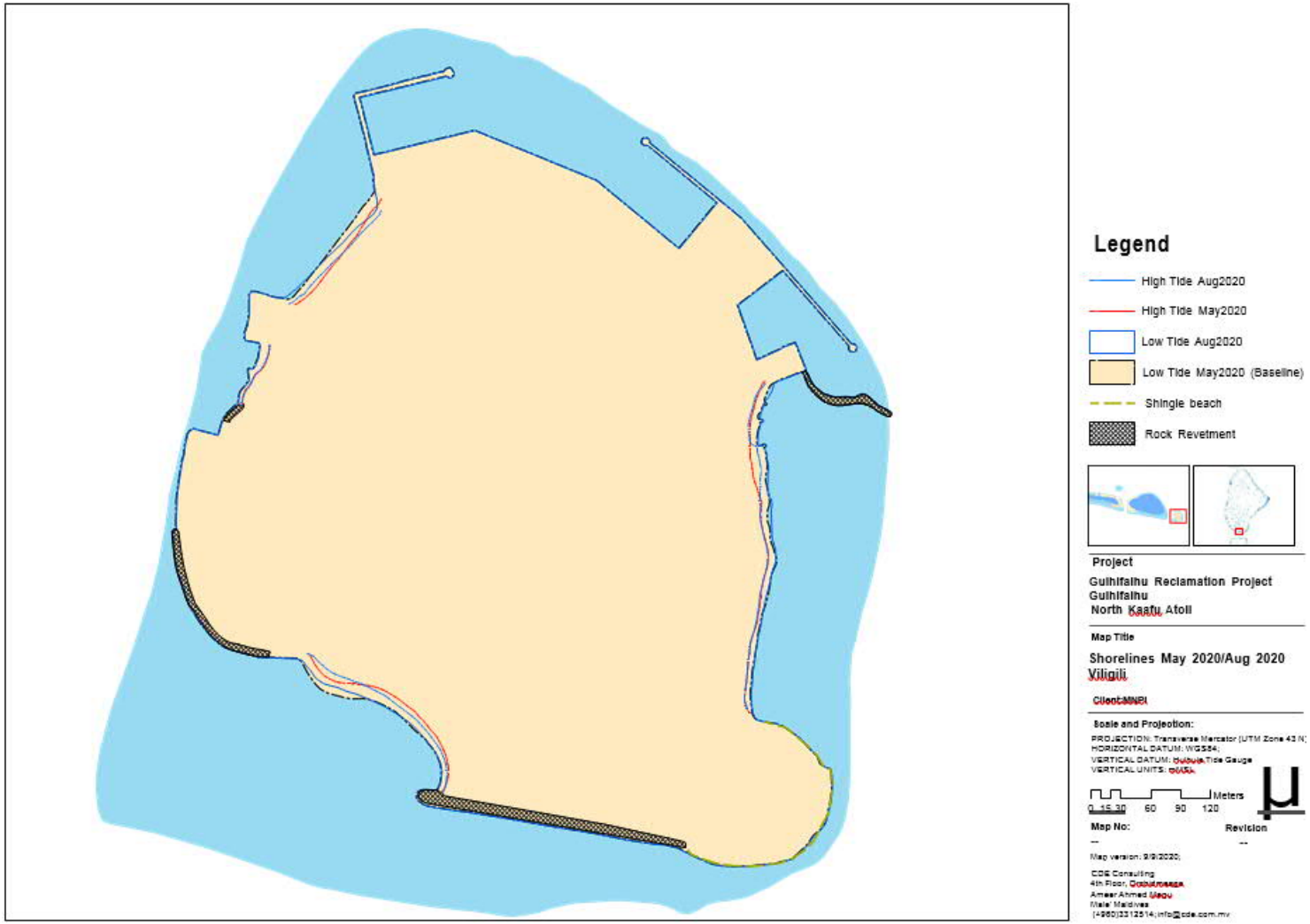



*Figure 5-4: Shoreline Map of Villingili.*

Left to right – Photos taken facing south and north respectively (18 August 2020)

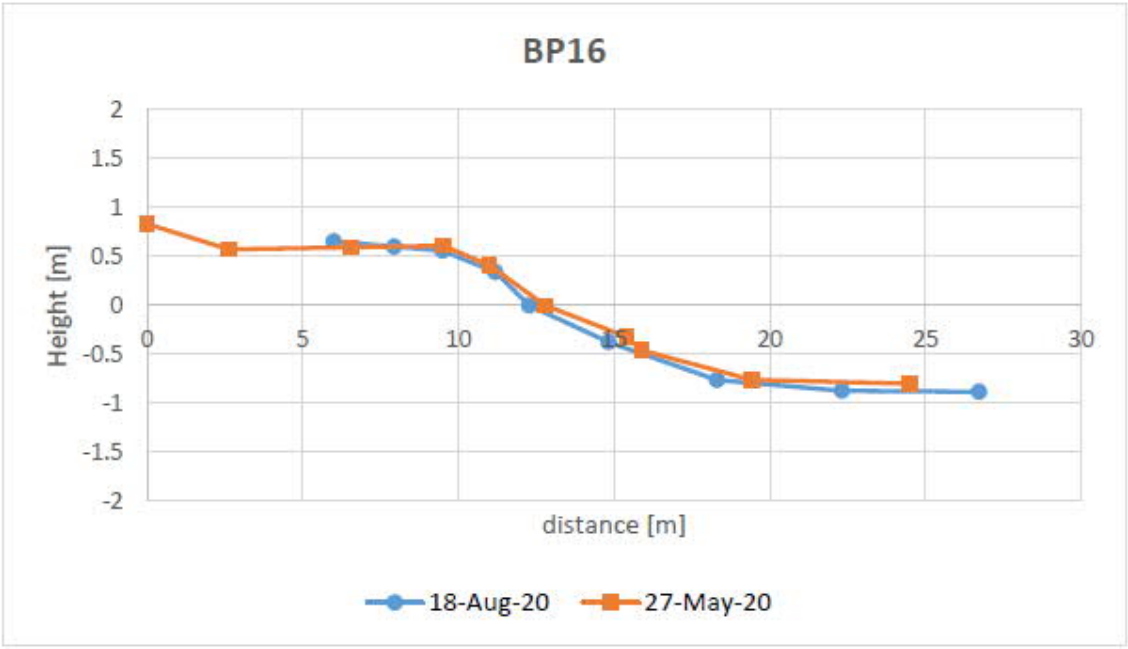



*Figure 5-5: Beach Profile ID: BP-16.*

Left to right – Photos taken facing south and north respectively (18 August 2020)

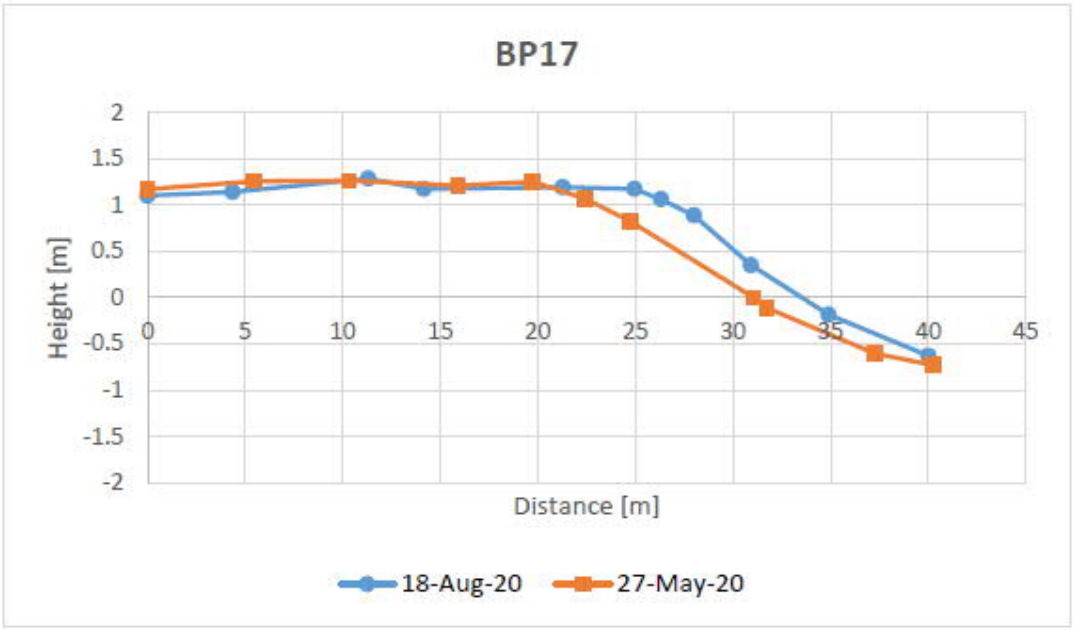



*Figure 5-6: Beach Profile ID: BP-17.*

Left to right – Photos taken facing south-west and north respectively (18 August 2020)

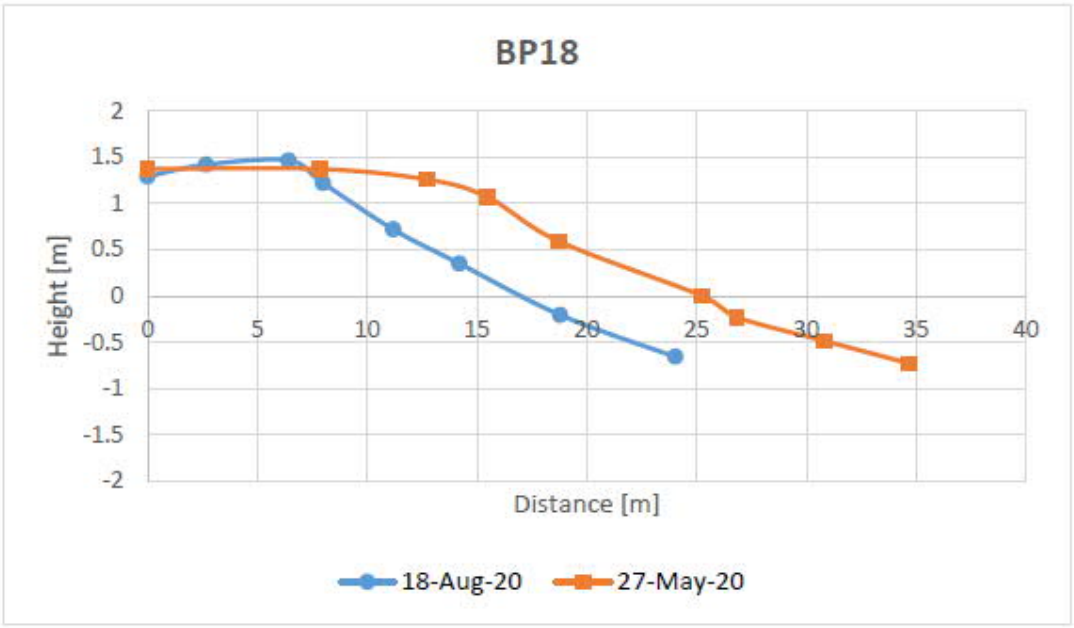



*Figure 5-7: Beach Profile ID: BP-18.*

Left to right – Photos taken facing west and south respectively (18 August 2020)

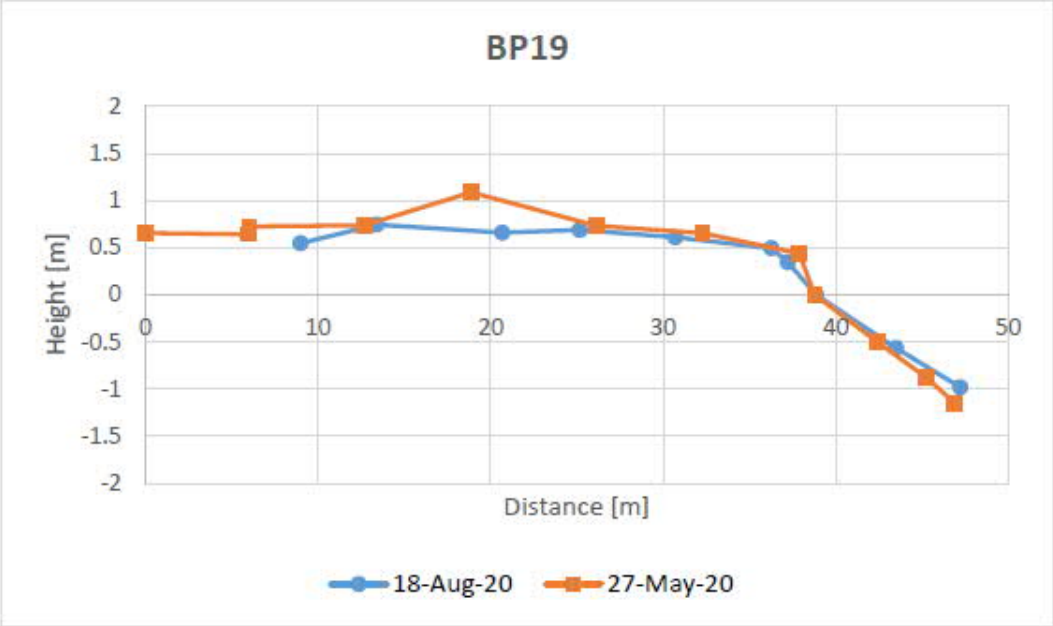



*Figure 5-8: Beach Profile ID: BP-19.*

Left to right – Photos taken facing south and north respectively (18 August 2020)

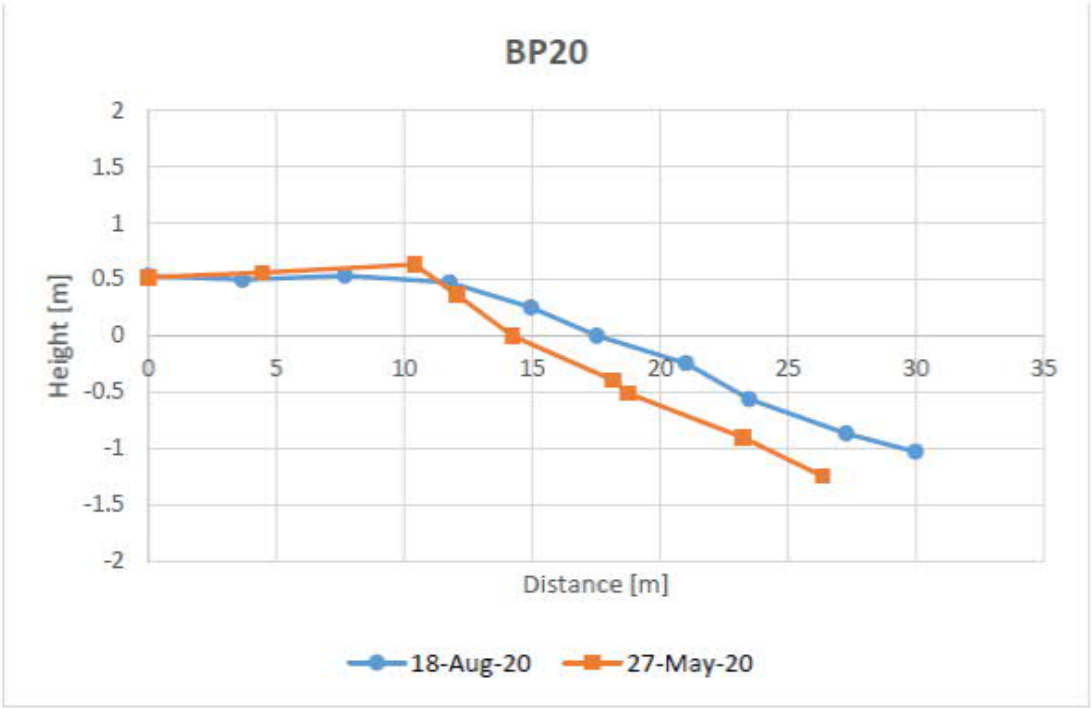



*Figure 5-9: Beach Profile ID: BP-20.*

Left to right – Photos taken facing south and north respectively (18 August 2020)

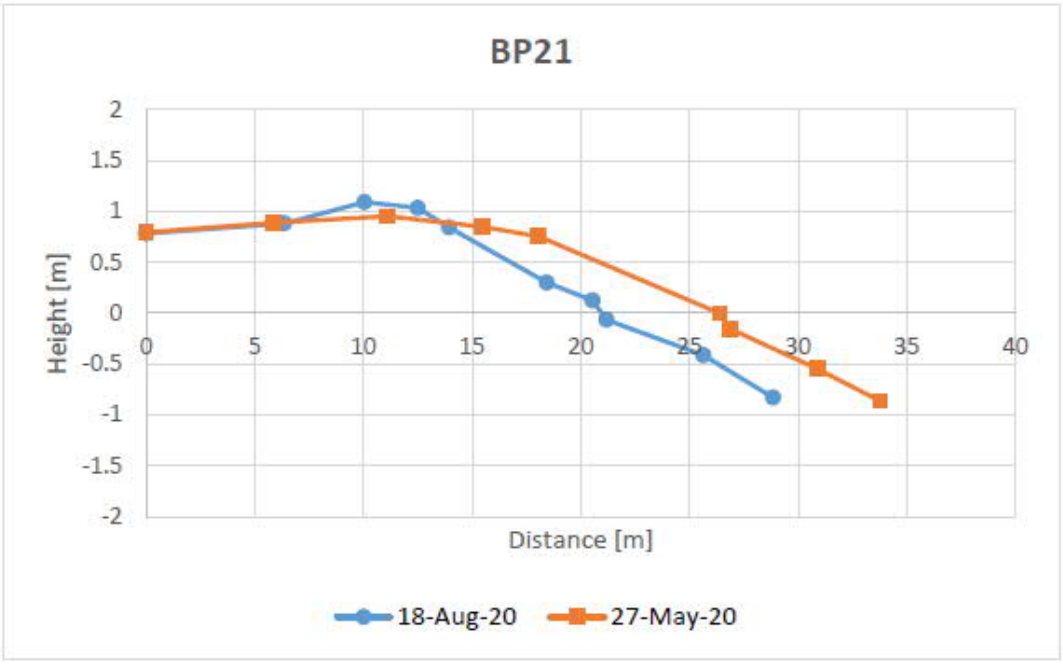



*Figure 5-10: Beach Profile ID: BP-21.*

Left to right – Photos taken facing north and east respectively (18 August 2020)

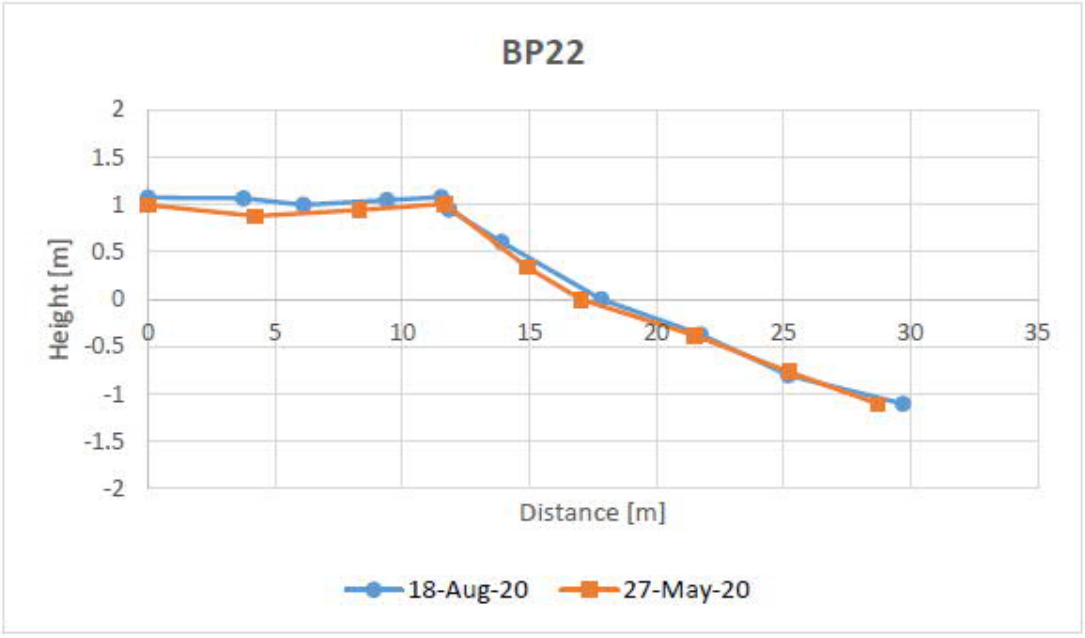



*Figure 5-11: Beach Profile ID: BP-22.*

Left to right – Photos taken facing north and east respectively (18 August 2020)

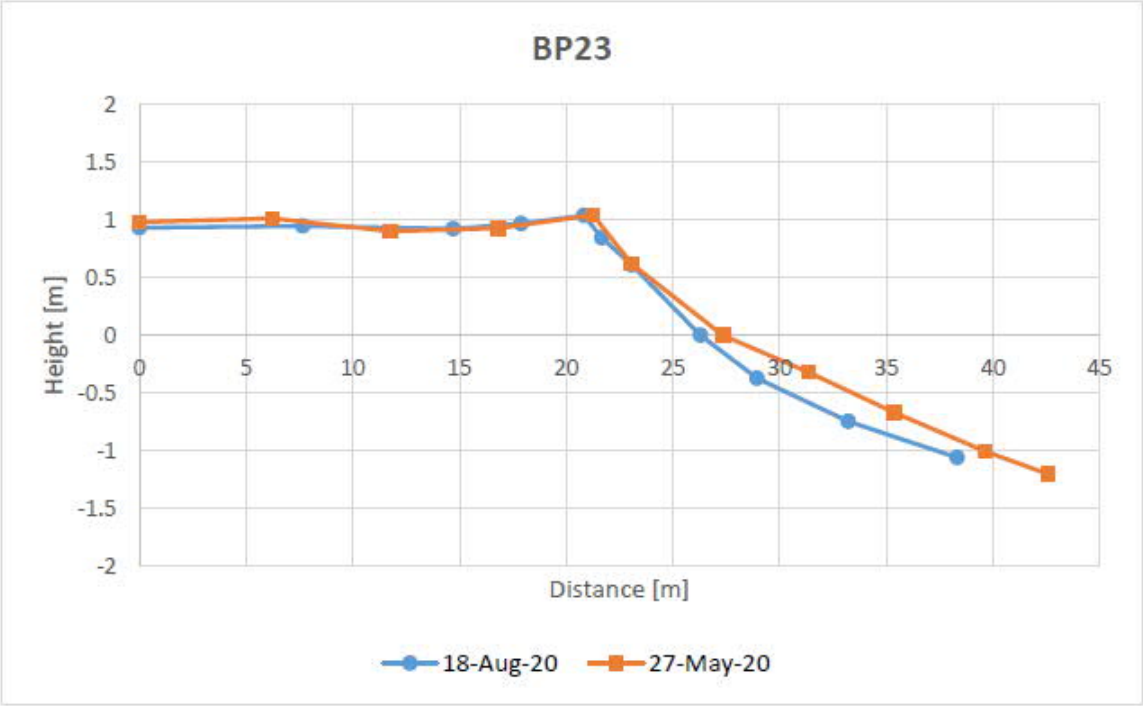



*Figure 5-12: Beach Profile ID: BP-23.*

Left to right – Photos taken facing north and east respectively (18 August 2020)

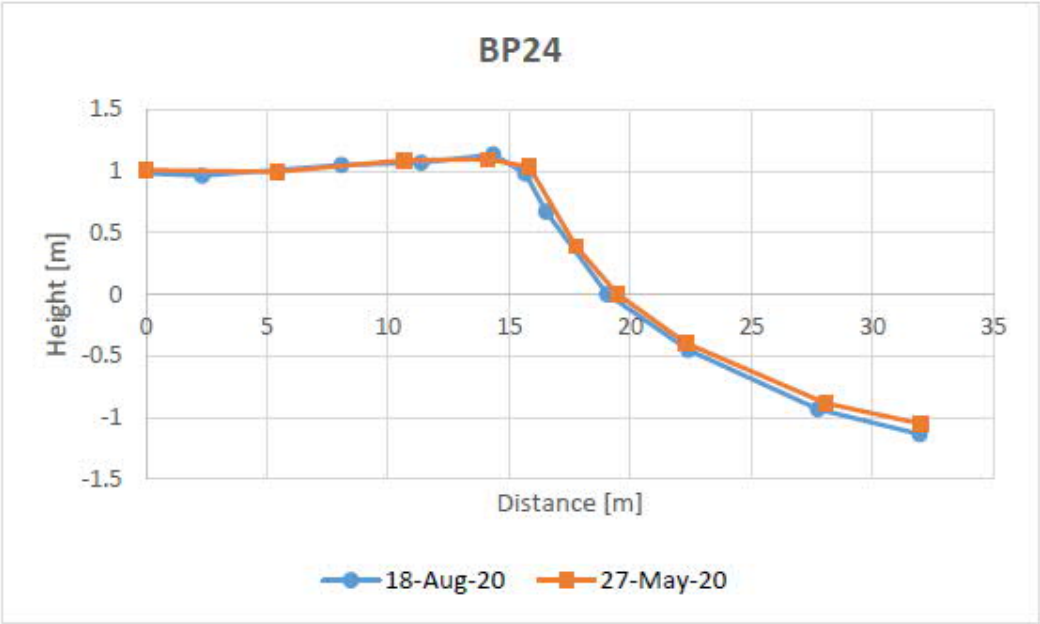



*Figure 5-13: Beach Profile ID: BP-24.*

# 6 REFERENCES, ABBREVIATIONS, DEFINITIONS

## 6.1 REFERENCES

| Client Documents | | |
|---|---|---|
| **No.** | **Document No.** | **Document Title** |
| 1. | 203-AS/471/2020/175 | Environmental Decision Statement |
| 2. | 203-AS/471/2020/174 | Dredging Permit |

| Boskalis Documents | | |
|---|---|---|
| **No.** | **Document No.** | **Document Title** |
| 3. | 462-10042-BWC- SHE-QS-001 | Project Safety, Health and Environmental Plan |
| 4. | 462-10042-BWC- SHE-QS-002 | Project Environmental Management Plan |
| 5. | 462-10042-BWC- SHE-QS-012 | Silt Screen Installation Plan |

| Supplier / Subcontractor Documents | | |
|---|---|---|
| **No.** | **Supplier / Subcontractor** | **Document Title** |
| 6. | CDE | Environment Impact Assessment - for the proposed port development project at Gulhifalhu, North Malé Atoll - Phase I - Dredging, Land reclamation and revetment works |

## 6.2 ABBREVIATIONS

| Abbreviation | Full meaning |
|---|---|
| BHD | Backhoe Dredger |
| BWC | Boskalis Westminster Contracting Ltd |
| CPCe | Coral Point Count with excel extension |
| CSR | Corporate Social Responsibility |
| EIA | Environmental Impact Assessment |
| EPA | Environmental Protection Agency |
| GPS | Global Positioning System |
| HSSE-Q | Health, Safety, Security, Environment and Quality |
| ISO | International Organization for Standardization |
| MSL | Mean Sea Level |
| MMS | Maldives Meteorological Services |

| | |
|---|---|
| NTU | Nephelometric Turbidity Units |
| RBW | Royal Boskalis Westminster |
| SSC | Suspended Sediment Concentration |
| TSHD | Trailing Suction Hopper Dredger |
| TSS | Total Suspended Solids |
| UTC | Coordinated Universal Times |

## 6.3 DEFINITIONS

| Definition | Full meaning |
|---|---|
| Project | Dredging, Reclamation and Revetment Works at Gulhifalhu |
| Client | Ministry of National Planning, Housing and Infrastructure, Maldives |
| Contractor | Boskalis Westminster Contracting Ltd |

Boskalis
Dredging & Marine Experts

# APPENDIX 1 – 3-MONTHS WATER QUALITY MONITORING DATA

*Table 10: 28th May until 21st August 2020 Daily Average Temperature (°C) Data*

| | Date | 2020-May-28 | 2020-May-29 | 2020-May-30 | 2020-May-31 | 2020-Jun-01 | 2020-Jun-02 | 2020-Jun-03 | 2020-Jun-04 | 2020-Jun-05 | 2020-Jun-06 | 2020-Jun-07 | 2020-Jun-08 | 2020-Jun-09 | 2020-Jun-10 | 2020-Jun-11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp |
| W2 | Surface | 29.28 | 29.30 | 29.20 | 29.30 | 29.40 | 29.30 | 29.70 | 29.40 | 29.40 | 29.35 | 29.30 | 29.41 | 29.31 | 29.46 | 29.64 |
| | Mid-water | 29.27 | 29.30 | 29.20 | 29.27 | 29.30 | 29.20 | 29.70 | 29.39 | 29.40 | 29.27 | 29.30 | 29.25 | 29.28 | 29.44 | 29.46 |
| | Bottom | 29.28 | 29.30 | 29.20 | 29.22 | 29.30 | 29.20 | 29.40 | 29.38 | 29.40 | 29.26 | 29.29 | 29.20 | 29.26 | 29.42 | 29.45 |
| W5 | Surface | 29.20 | 29.20 | 29.30 | 29.72 | 29.30 | 29.40 | 29.80 | 29.42 | 29.50 | 29.42 | 29.26 | 29.60 | 29.52 | 29.46 | 29.75 |
| | Mid-water | 29.27 | 29.20 | 29.30 | 29.45 | 29.30 | 29.30 | 29.60 | 29.38 | 29.40 | 29.34 | 29.26 | 29.54 | 29.30 | 29.42 | 29.43 |
| | Bottom | 29.27 | 29.20 | 29.30 | 29.30 | 29.30 | 29.30 | 29.40 | 29.38 | 29.20 | 29.21 | 29.26 | 29.15 | 29.23 | 29.40 | 29.43 |
| W7 | Surface | 29.40 | 29.30 | 29.20 | 29.71 | 29.50 | 29.50 | 29.70 | 29.48 | 29.60 | 29.58 | 29.47 | 29.67 | 29.55 | 29.64 | 29.72 |
| | Mid-water | 29.39 | 29.30 | 29.20 | 29.71 | 29.40 | 29.50 | 29.30 | 29.46 | 29.50 | 29.54 | 29.46 | 29.05 | 29.53 | 29.63 | 29.61 |
| | Bottom | 29.38 | 29.30 | 29.20 | 29.68 | 29.40 | 29.40 | 28.70 | 29.45 | 29.50 | 29.55 | 29.43 | 28.65 | 29.51 | 29.61 | 29.61 |
| W10 | Surface | 29.40 | 29.30 | 29.30 | 29.72 | 29.50 | 29.50 | 29.80 | 29.46 | 29.60 | 29.58 | 29.44 | 29.64 | 29.62 | 29.58 | 29.58 |
| | Mid-water | 29.38 | 29.30 | 29.30 | 29.71 | 29.40 | 29.40 | 29.70 | 29.43 | 29.50 | 29.53 | 29.44 | 29.61 | 29.55 | 29.55 | 29.55 |
| | Bottom | 29.32 | 29.30 | 29.30 | 29.69 | 29.40 | 29.30 | 29.60 | 29.42 | 29.50 | 29.51 | 29.41 | 28.94 | 29.52 | 29.52 | 29.54 |
| W11 | Surface | 29.42 | 29.30 | 29.40 | 29.67 | 29.40 | 29.50 | 29.70 | 29.42 | 29.50 | 29.42 | 29.39 | 29.61 | 29.55 | 29.55 | 29.58 |
| | Mid-water | 29.40 | 29.30 | 29.40 | 29.66 | 29.40 | 29.50 | 29.70 | 29.41 | 29.50 | 29.37 | 29.39 | 29.63 | 29.54 | 29.55 | 29.51 |
| | Bottom | 29.39 | 29.30 | 29.30 | 29.42 | 29.20 | 29.40 | 29.50 | 29.40 | 29.50 | 29.33 | 29.39 | 29.59 | 29.51 | 29.57 | 29.46 |
| W14 | Surface | 29.39 | 29.20 | 29.10 | 29.56 | 29.40 | 29.30 | 29.80 | 29.46 | 29.40 | 29.47 | 29.32 | 29.45 | 29.47 | 29.51 | 29.60 |
| | Mid-water | 29.39 | 29.20 | 29.00 | 29.41 | 29.30 | 29.30 | 29.50 | 29.43 | 29.40 | 29.43 | 29.32 | 29.46 | 29.42 | 29.50 | 29.53 |
| | Bottom | 29.34 | 29.20 | 29.00 | 29.20 | 29.20 | 29.30 | 29.40 | 29.42 | 29.40 | 29.32 | 29.31 | 29.43 | 29.39 | 29.49 | 29.52 |
| W15 | Surface | 29.21 | 29.20 | 29.40 | 29.51 | 29.30 | 29.40 | 29.70 | 29.39 | 29.50 | 29.38 | 29.34 | 29.58 | 29.57 | 29.65 | 29.65 |
| | Mid-water | 29.23 | 29.20 | 29.40 | 29.44 | 29.30 | 29.30 | 29.60 | 29.37 | 29.40 | 29.34 | 29.35 | 29.48 | 29.37 | 29.47 | 29.60 |
| | Bottom | 29.23 | 29.20 | 29.40 | 29.36 | 29.30 | 29.30 | 29.30 | 29.36 | 29.30 | 29.25 | 29.31 | 29.32 | 29.23 | 29.30 | 29.48 |
| W16 | Surface | 29.27 | 29.30 | 29.20 | 29.44 | 29.30 | 29.30 | 29.90 | 29.40 | 29.40 | 29.41 | 29.27 | 29.55 | 29.37 | 29.48 | 29.75 |
| | Mid-water | 29.27 | 29.30 | 29.20 | 29.36 | 29.30 | 29.30 | 29.50 | 29.40 | 29.40 | 29.37 | 29.29 | 29.50 | 29.34 | 29.45 | 29.47 |
| | Bottom | 29.27 | 29.20 | 29.20 | 29.32 | 29.30 | 29.30 | 29.50 | 29.40 | 29.40 | 29.24 | 29.29 | 29.29 | 29.32 | 29.34 | 29.37 |
| W19 (Background | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W20 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W25 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W26 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W27 (Background | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W36 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W45 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W46 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W47 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W51 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |

Boskalis
Dredging & Marine Experts

| | Date | 2020-Jun-12 | 2020-Jun-13 | 2020-Jun-14 | 2020-Jun-15 | 2020-Jun-16 | 2020-Jun-17 | 2020-Jun-18 | 2020-Jun-19 | 2020-Jun-20 | 2020-Jun-21 | 2020-Jun-22 | 2020-Jun-23 | 2020-Jun-24 | 2020-Jun-25 | 2020-Jun-26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp |
| W2 | Surface | 29.50 | 29.51 | 29.49 | 29.69 | 29.70 | 29.60 | 29.70 | 29.42 | 29.58 | 29.44 | 29.66 | 29.72 | 29.59 | 29.62 | 29.69 |
| | Mid-water | 29.50 | 29.48 | 29.38 | 29.64 | 29.70 | 29.60 | 29.60 | 29.44 | 29.50 | 29.40 | 29.64 | 29.65 | 29.59 | 29.58 | 29.52 |
| | Bottom | 29.48 | 29.44 | 29.39 | 29.57 | 29.60 | 29.60 | 29.50 | 29.45 | 29.50 | 29.33 | 29.63 | 29.64 | 29.58 | 29.58 | 29.51 |
| W5 | Surface | 29.53 | 29.53 | 29.38 | 29.62 | 29.60 | 29.60 | 29.80 | 29.40 | 29.43 | 29.44 | 29.53 | 29.59 | 29.55 | 29.64 | 29.58 |
| | Mid-water | 29.51 | 29.44 | 29.36 | 29.58 | 29.50 | 29.60 | 29.60 | 29.42 | 29.35 | 29.41 | 29.52 | 29.47 | 29.52 | 29.58 | 29.47 |
| | Bottom | 29.50 | 29.37 | 29.35 | 29.56 | 29.50 | 29.60 | 29.50 | 29.41 | 29.15 | 29.31 | 29.36 | 29.42 | 29.51 | 29.50 | 29.43 |
| W7 | Surface | 29.51 | 29.57 | 29.67 | 29.59 | 29.90 | 29.70 | 29.60 | 29.42 | 29.50 | 29.39 | 29.85 | 29.88 | 29.34 | 29.60 | 29.65 |
| | Mid-water | 29.51 | 29.54 | 29.66 | 29.61 | 29.70 | 29.70 | 29.50 | 29.41 | 29.44 | 29.37 | 29.84 | 29.80 | 29.34 | 29.51 | 29.51 |
| | Bottom | 29.40 | 29.51 | 29.59 | 29.51 | 29.70 | 29.70 | 29.50 | 29.46 | 29.41 | 29.37 | 29.82 | 29.77 | 29.31 | 29.46 | 29.50 |
| W10 | Surface | 29.49 | 29.54 | 29.78 | 29.88 | 29.80 | 29.60 | 29.80 | 29.40 | 29.42 | 29.62 | 29.86 | 29.87 | 29.36 | 29.58 | 29.89 |
| | Mid-water | 29.49 | 29.51 | 29.69 | 29.71 | 29.70 | 29.60 | 29.60 | 29.38 | 29.37 | 29.50 | 29.83 | 29.84 | 29.22 | 29.51 | 29.57 |
| | Bottom | 29.44 | 29.52 | 29.60 | 29.39 | 29.60 | 29.60 | 29.60 | 29.26 | 29.37 | 29.40 | 29.82 | 29.78 | 29.21 | 29.51 | 29.51 |
| W11 | Surface | 29.54 | 29.49 | 29.57 | 29.71 | 29.70 | 29.70 | 29.70 | 29.39 | 29.39 | 29.40 | 29.90 | 29.71 | 29.65 | 29.72 | 29.65 |
| | Mid-water | 29.52 | 29.53 | 29.56 | 29.69 | 29.70 | 29.70 | 29.60 | 29.35 | 29.29 | 29.35 | 29.79 | 29.71 | 29.64 | 29.56 | 29.57 |
| | Bottom | 29.48 | 29.51 | 29.62 | 29.62 | 29.60 | 29.70 | 29.50 | 29.31 | 29.22 | 29.31 | 29.76 | 29.70 | 29.62 | 29.52 | 29.51 |
| W14 | Surface | 29.49 | 29.56 | 29.45 | 29.65 | 29.80 | 29.60 | 29.70 | 29.62 | 29.60 | 29.57 | 29.57 | 29.72 | 29.64 | 29.65 | 29.71 |
| | Mid-water | 29.49 | 29.52 | 29.35 | 29.63 | 29.60 | 29.60 | 29.60 | 29.58 | 29.50 | 29.49 | 29.53 | 29.59 | 29.62 | 29.59 | 29.48 |
| | Bottom | 29.50 | 29.49 | 29.31 | 29.63 | 29.60 | 29.60 | 29.50 | 29.52 | 29.47 | 29.46 | 29.53 | 29.54 | 29.61 | 29.58 | 29.44 |
| W15 | Surface | 29.53 | 29.54 | 29.47 | 29.68 | 29.60 | 29.60 | 30.30 | 29.32 | 29.41 | 29.46 | 29.60 | 29.83 | 29.45 | 29.38 | 29.54 |
| | Mid-water | 29.52 | 29.53 | 29.37 | 29.70 | 29.60 | 29.60 | 29.70 | 29.32 | 29.32 | 29.38 | 29.58 | 29.75 | 29.45 | 29.34 | 29.45 |
| | Bottom | 29.52 | 29.52 | 29.36 | 29.66 | 29.60 | 29.60 | 29.60 | 29.32 | 29.29 | 29.38 | 29.56 | 29.64 | 29.42 | 29.32 | 29.42 |
| W16 | Surface | 29.53 | 29.59 | 29.44 | 29.67 | 30.00 | 29.70 | 29.70 | 29.50 | 29.70 | 29.65 | 29.78 | 29.78 | 29.66 | 29.65 | 29.58 |
| | Mid-water | 29.53 | 29.46 | 29.35 | 29.73 | 29.60 | 29.70 | 29.60 | 29.49 | 29.52 | 29.54 | 29.79 | 29.66 | 29.65 | 29.61 | 29.53 |
| | Bottom | 29.42 | 29.35 | 29.34 | 29.59 | 29.60 | 29.70 | 29.60 | 29.50 | 29.50 | 29.50 | 29.75 | 29.62 | 29.63 | 29.60 | 29.52 |
| W19 (Background | Surface | 29.62 | | 30.11 | 29.63 | 29.70 | 29.70 | 29.70 | 29.55 | 29.69 | 29.84 | 29.83 | 29.93 | 29.67 | 29.60 | 29.54 |
| | Mid-water | 29.60 | | 29.64 | 29.52 | 29.50 | 29.70 | 29.70 | 29.49 | 29.54 | 29.77 | 29.61 | 29.63 | 29.60 | 29.57 | 29.45 |
| | Bottom | 29.53 | | 29.60 | 29.49 | 29.70 | 29.70 | 29.60 | 29.47 | 29.53 | 29.70 | 29.63 | 29.57 | 29.57 | 29.55 | 29.44 |
| W20 | Surface | 29.59 | | 29.90 | 29.89 | 29.90 | 29.60 | 30.00 | 29.51 | 29.65 | 29.60 | 29.67 | 29.66 | 29.87 | 29.71 | |
| | Mid-water | 29.57 | | 29.41 | 29.47 | 29.80 | 29.50 | 29.50 | 29.47 | 29.54 | 29.57 | 29.67 | 29.59 | 29.54 | 29.67 | |
| | Bottom | 29.53 | | 29.41 | 29.46 | 29.50 | 29.50 | 29.50 | 29.46 | 29.40 | 29.55 | 29.69 | 29.57 | 29.49 | 29.67 | |
| W25 | Surface | 29.69 | | 29.97 | 29.66 | 29.80 | 29.50 | 30.20 | 29.48 | 29.64 | 29.64 | 29.61 | 29.80 | 29.64 | 29.69 | |
| | Mid-water | 29.64 | | 29.42 | 29.53 | 29.70 | 29.50 | 29.60 | 29.48 | 29.49 | 29.59 | 29.58 | 29.66 | 29.56 | 29.57 | |
| | Bottom | 29.55 | | 29.42 | 29.50 | 29.50 | 29.60 | 29.60 | 29.43 | 29.51 | 29.59 | 29.54 | 29.48 | 29.53 | 29.52 | |
| W26 | Surface | | | | | | | 30.10 | 29.44 | 29.75 | 29.74 | 29.61 | 29.57 | 29.42 | 29.48 | |
| | Mid-water | | | | | | | 29.50 | 29.41 | 29.39 | 29.70 | 29.43 | 29.56 | 29.26 | 29.44 | |
| | Bottom | | | | | | | 29.40 | 29.33 | 29.28 | 29.38 | 29.42 | 29.55 | 29.24 | 29.44 | |
| W27 (Background | Surface | 29.45 | | 29.80 | 29.50 | 29.50 | 29.50 | 29.50 | 29.40 | 29.42 | 29.60 | 29.51 | 29.39 | 29.41 | 29.53 | |
| | Mid-water | 29.40 | | 29.51 | 29.29 | 29.50 | 29.50 | 29.50 | 29.40 | 29.36 | 29.44 | 29.46 | 29.33 | 29.34 | 29.36 | |
| | Bottom | 29.03 | | 29.42 | 29.16 | 29.50 | 29.50 | 29.50 | 29.40 | 29.28 | 29.36 | 29.40 | 29.30 | 29.30 | 29.35 | |
| W36 | Surface | 29.58 | | 29.53 | 29.73 | 29.50 | | 29.90 | 29.49 | 29.58 | 29.57 | 29.67 | 29.83 | 29.67 | 29.66 | 29.48 |
| | Mid-water | 29.52 | | 29.50 | 29.65 | 29.40 | | 29.50 | 29.43 | 29.35 | 29.46 | 29.62 | 29.71 | 29.45 | 29.60 | 29.48 |
| | Bottom | 29.33 | | 29.42 | 29.51 | 29.30 | | 29.40 | 29.43 | 29.31 | 29.38 | 29.52 | 29.64 | 29.30 | 29.54 | 29.45 |
| W45 | Surface | 29.62 | | 29.64 | 29.74 | 29.70 | | 29.70 | 29.38 | 29.43 | 29.51 | 29.60 | 29.88 | 29.58 | 29.57 | 29.43 |
| | Mid-water | 29.56 | | 29.44 | 29.65 | 29.70 | | 29.50 | 29.37 | 29.38 | 29.48 | 29.57 | 29.68 | 29.45 | 29.52 | 29.43 |
| | Bottom | 29.44 | | 29.40 | 29.52 | 29.70 | | 29.40 | 29.37 | 29.28 | 29.38 | 29.48 | 29.47 | 29.40 | 29.48 | 29.42 |
| W46 | Surface | 29.60 | | 29.65 | 29.67 | 29.80 | | 30.00 | 29.51 | 29.72 | 29.69 | 29.59 | 29.76 | 29.46 | 29.66 | |
| | Mid-water | 29.55 | | 29.40 | 29.53 | 29.60 | | 29.50 | 29.35 | 29.67 | 29.67 | 29.53 | 29.59 | 29.40 | 29.65 | |
| | Bottom | 29.51 | | 29.34 | 29.49 | 29.50 | | 29.50 | 29.39 | 29.29 | 29.49 | 29.51 | 29.52 | 29.37 | 29.56 | |
| W47 | Surface | 29.62 | | 29.67 | 29.60 | 29.70 | | 30.20 | 29.45 | 29.70 | 29.65 | 29.53 | | | | |
| | Mid-water | 29.54 | | 29.42 | 29.59 | 29.60 | | 29.50 | 29.35 | 29.48 | 29.42 | 29.49 | | | | |
| | Bottom | 29.51 | | 29.38 | 29.47 | 29.50 | | 29.40 | 29.29 | 29.32 | 29.34 | 29.44 | | | | |
| W51 | Surface | 29.60 | | 29.89 | 29.74 | 29.70 | 29.50 | 29.80 | 29.45 | 29.53 | 29.95 | 29.60 | 29.83 | 29.60 | 29.66 | |
| | Mid-water | 29.56 | | 29.42 | 29.68 | 29.60 | 29.50 | 29.50 | 29.44 | 29.43 | 29.56 | 29.59 | 29.62 | 29.49 | 29.59 | |
| | Bottom | 29.49 | | 29.22 | 29.44 | 29.50 | 29.50 | 29.50 | 29.45 | 29.43 | 29.41 | 29.56 | 29.52 | 29.46 | 29.60 | |

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| | Date | 2020-Jul-12 | 2020-Jul-13 | 2020-Jul-14 | 2020-Jul-15 | 2020-Jul-16 | 2020-Jul-17 | 2020-Jul-18 | 2020-Jul-19 | 2020-Jul-20 | 2020-Jul-21 | 2020-Jul-22 | 2020-Jul-23 | 2020-Jul-24 | 2020-Jul-25 | 2020-Jul-26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp |
| W2 | Surface | 29.80 | 30.00 | 29.90 | 29.95 | 29.90 | 29.85 | | | | 29.40 | 29.17 | 29.11 | | 28.90 | 29.16 |
| | Mid-water | 29.80 | 29.90 | 29.80 | 29.85 | 29.90 | 29.86 | | | | 29.39 | 29.23 | 29.05 | | 28.81 | 28.98 |
| | Bottom | 29.80 | 29.80 | 29.80 | 29.82 | 29.90 | 29.87 | | | | 29.35 | 29.23 | 29.03 | | 28.77 | 28.89 |
| W5 | Surface | 29.80 | 30.00 | 30.20 | 29.97 | 30.00 | 29.71 | | | 29.50 | 29.36 | 29.20 | 28.98 | | 28.85 | 29.33 |
| | Mid-water | 29.70 | 29.80 | 30.00 | 29.88 | 29.90 | 29.84 | | | 29.44 | 29.23 | 29.13 | 28.90 | | 28.74 | 29.08 |
| | Bottom | 29.70 | 29.80 | 29.90 | 29.81 | 29.90 | 29.84 | | | 29.41 | 29.17 | 29.05 | 28.86 | | 28.72 | 28.96 |
| W7 | Surface | 30.00 | 30.10 | 29.90 | 29.93 | 30.00 | 29.89 | | | 29.41 | 29.31 | 28.97 | 29.12 | | 29.11 | 29.54 |
| | Mid-water | 29.90 | 30.00 | 29.80 | 29.95 | 30.00 | 29.88 | | | 29.44 | 29.30 | 28.90 | 29.05 | | 29.06 | 29.32 |
| | Bottom | 29.90 | 30.00 | 29.90 | 29.92 | 30.00 | 29.89 | | | 29.42 | 29.24 | 28.83 | 28.93 | | 29.03 | 29.31 |
| W10 | Surface | 29.90 | 30.10 | 29.90 | 29.98 | 30.10 | 29.90 | | | 29.51 | 29.33 | 29.08 | 29.15 | | 29.10 | 29.63 |
| | Mid-water | 29.90 | 30.10 | 29.90 | 29.96 | 30.10 | 29.87 | | | 29.42 | 29.32 | 29.04 | 29.06 | | 29.07 | 29.32 |
| | Bottom | 29.70 | 30.10 | 29.90 | 29.94 | 30.00 | 29.85 | | | 29.38 | 29.29 | 29.02 | 29.04 | | 29.04 | 29.29 |
| W11 | Surface | 29.90 | 30.10 | 30.10 | 30.02 | 29.90 | 29.86 | | | 29.50 | 29.26 | 29.15 | 29.11 | | 29.03 | 29.40 |
| | Mid-water | 29.80 | 30.10 | 29.90 | 29.96 | 29.90 | 29.89 | | | 29.42 | 29.28 | 29.14 | 29.07 | | 29.01 | 29.31 |
| | Bottom | 29.70 | 30.10 | 29.70 | 29.87 | 29.70 | 29.70 | | | 29.33 | 29.28 | 29.14 | 29.11 | | 29.00 | 29.30 |
| W14 | Surface | 29.90 | 30.10 | 30.30 | 30.03 | 30.20 | 29.90 | | | 29.38 | 29.28 | 29.21 | 29.11 | | 28.98 | 29.80 |
| | Mid-water | 29.80 | 29.80 | 30.00 | 29.91 | 30.00 | 29.96 | | | 29.30 | 29.26 | 29.18 | 29.00 | | 28.76 | 28.94 |
| | Bottom | 29.80 | 29.80 | 29.80 | 29.89 | 29.90 | 29.87 | | | 29.29 | 29.25 | 29.11 | 28.95 | | 28.72 | 28.84 |
| W15 | Surface | 29.70 | 30.00 | 30.10 | 29.94 | 30.20 | 29.78 | | | 29.55 | 29.28 | 29.15 | 28.98 | | 28.97 | 29.52 |
| | Mid-water | 29.70 | 29.90 | 29.80 | 29.87 | 29.80 | 29.80 | | | 29.49 | 29.20 | 29.10 | 28.95 | | 28.78 | 29.34 |
| | Bottom | 29.70 | 29.90 | 29.70 | 29.81 | 29.70 | 29.82 | | | 29.49 | 29.17 | 29.09 | 28.94 | | 28.71 | 29.22 |
| W16 | Surface | 30.00 | 30.10 | 30.20 | 30.34 | 30.00 | 29.90 | | | | 29.39 | 29.30 | 29.23 | | 28.85 | 29.71 |
| | Mid-water | 29.80 | 29.90 | 29.90 | 29.89 | 29.80 | 29.88 | | | | 29.39 | 29.23 | 29.16 | | 28.75 | 29.01 |
| | Bottom | 29.80 | 29.80 | 29.80 | 29.73 | 29.80 | 29.85 | | | | 29.38 | 29.20 | 29.14 | | 28.74 | 28.89 |
| W19 (Background | Surface | 29.90 | 30.00 | 30.00 | 30.03 | 30.00 | 29.86 | | | | 29.42 | 29.32 | 29.29 | | 29.15 | 29.25 |
| | Mid-water | 29.80 | 29.90 | 29.90 | 29.90 | 29.90 | 29.85 | | | | 29.39 | 29.22 | 29.08 | | 28.95 | 29.14 |
| | Bottom | 29.70 | 29.90 | 29.80 | 29.86 | 29.80 | 29.81 | | | | 29.37 | 29.19 | 28.98 | | 28.88 | 29.02 |
| W20 | Surface | 29.90 | 30.10 | 29.90 | 30.02 | 30.00 | 29.85 | | | | 29.26 | 29.33 | 29.37 | | 28.92 | 29.10 |
| | Mid-water | 29.80 | 29.80 | 29.90 | 29.97 | 30.00 | 29.81 | | | | 29.24 | 29.20 | 29.03 | | 28.84 | 28.86 |
| | Bottom | 29.70 | 29.80 | 29.90 | 29.84 | 29.90 | 29.79 | | | | 29.16 | 29.12 | 28.94 | | 28.82 | 28.74 |
| W25 | Surface | 30.20 | 30.00 | 29.90 | 30.18 | 30.00 | 29.85 | | | | 29.35 | 29.29 | 29.28 | | 29.02 | 28.89 |
| | Mid-water | 29.80 | 29.90 | 29.80 | 29.85 | 29.90 | 29.88 | | | | 29.30 | 29.21 | 29.12 | | 28.89 | 28.81 |
| | Bottom | 29.80 | 29.80 | 29.80 | 29.81 | 29.80 | 29.87 | | | | 29.29 | 29.20 | 29.09 | | 28.74 | 28.73 |
| W26 | Surface | 30.00 | 29.80 | 29.80 | 29.94 | 30.00 | 29.85 | | | | 29.27 | 29.11 | 29.02 | | 28.98 | 28.86 |
| | Mid-water | 29.80 | 29.70 | 29.70 | 29.93 | 29.70 | 29.83 | | | | 29.26 | 29.11 | 28.90 | | 28.83 | 28.81 |
| | Bottom | 29.70 | 29.70 | 29.60 | 29.90 | 29.70 | 29.76 | | | | 29.23 | 29.10 | 28.90 | | 28.81 | 28.78 |
| W27 (Background | Surface | 30.00 | 29.90 | 29.70 | 30.00 | 29.80 | 29.72 | | | | 29.11 | 29.03 | 29.10 | | 28.88 | 28.86 |
| | Mid-water | 29.70 | 29.70 | 29.70 | 29.81 | 29.80 | 29.71 | | | | 29.08 | 29.02 | 28.98 | | 28.80 | 28.81 |
| | Bottom | 29.60 | 29.70 | 29.70 | 29.70 | 29.70 | 29.70 | | | | 29.07 | 29.02 | 28.93 | | 28.79 | 28.77 |
| W36 | Surface | 30.20 | 29.80 | 29.90 | 30.00 | 29.90 | 29.92 | | | | 29.32 | 29.14 | 29.06 | | 28.91 | 29.07 |
| | Mid-water | 29.80 | 29.80 | 29.80 | 29.94 | 29.90 | 29.89 | | | | 29.27 | 29.01 | 29.04 | | 28.79 | 29.01 |
| | Bottom | 29.70 | 29.80 | 29.70 | 29.85 | 29.90 | 29.84 | | | | 29.25 | 28.99 | 29.03 | | 28.72 | 28.96 |
| W45 | Surface | 30.20 | 29.80 | 29.90 | 29.92 | 29.90 | 29.93 | | | | 29.23 | 29.18 | 29.35 | | 28.92 | 29.06 |
| | Mid-water | 29.80 | 29.80 | 29.90 | 29.88 | 29.90 | 29.84 | | | | 29.22 | 29.05 | 29.08 | | 28.82 | 28.91 |
| | Bottom | 29.80 | 29.80 | 29.90 | 29.86 | 29.80 | 29.78 | | | | 29.22 | 29.01 | 28.97 | | 28.77 | 28.86 |
| W46 | Surface | 29.90 | 29.70 | 29.90 | 30.05 | 29.90 | 29.96 | | | | 29.35 | 29.23 | 29.14 | | 28.91 | 28.99 |
| | Mid-water | 29.80 | 29.80 | 29.80 | 30.01 | 29.90 | 29.86 | | | | 29.26 | 29.09 | 29.15 | | 28.90 | 28.94 |
| | Bottom | 29.80 | 29.80 | 29.80 | 29.98 | 29.90 | 29.85 | | | | 29.23 | 29.06 | 29.12 | | 28.83 | 28.89 |
| W47 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W51 | Surface | 30.00 | 30.00 | 30.10 | 30.26 | 30.00 | 29.83 | | | | 29.37 | 29.32 | 29.27 | | 29.00 | 28.90 |
| | Mid-water | 29.80 | 29.90 | 29.80 | 29.89 | 29.90 | 29.84 | | | | 29.34 | 29.16 | 29.07 | | 28.76 | 28.85 |
| | Bottom | 29.80 | 29.80 | 29.80 | 29.85 | 29.90 | 29.80 | | | | 29.32 | 29.09 | 29.07 | | 28.75 | 28.79 |

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| | Date | 2020-Jul-27 | 2020-Jul-28 | 2020-Jul-29 | 2020-Jul-30 | 2020-Jul-31 | 2020-Aug-01 | 2020-Aug-02 | 2020-Aug-03 | 2020-Aug-04 | 2020-Aug-05 | 2020-Aug-06 | 2020-Aug-07 | 2020-Aug-08 | 2020-Aug-09 | 2020-Aug-10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp |
| W2 | Surface | 29.23 | 29.16 | 29.23 | 29.19 | 29.23 | 29.10 | 29.11 | 29.02 | 29.29 | 29.09 | 29.01 | 29.04 | 29.17 | 29.16 | 29.11 |
| | Mid-water | 29.20 | 29.12 | 29.20 | 29.20 | 29.17 | 29.06 | 29.10 | 28.99 | 29.10 | 28.92 | 29.02 | 29.03 | 29.15 | 29.13 | 29.10 |
| | Bottom | 28.94 | 29.06 | 29.20 | 29.17 | 29.16 | 29.07 | 29.07 | 28.90 | 29.06 | 28.87 | 28.98 | 29.03 | 29.16 | 29.13 | 29.09 |
| W5 | Surface | 29.22 | 29.12 | 29.31 | 29.23 | 29.11 | 29.11 | 29.13 | 28.79 | 29.09 | 28.97 | 28.93 | 29.07 | 29.29 | 29.14 | 29.15 |
| | Mid-water | 29.10 | 29.08 | 29.19 | 29.19 | 29.12 | 29.11 | 28.98 | 28.83 | 29.03 | 28.96 | 28.94 | 29.07 | 29.15 | 29.13 | 29.10 |
| | Bottom | 28.89 | 29.00 | 29.16 | 29.12 | 29.13 | 29.08 | 28.91 | 28.78 | 29.00 | 28.96 | 28.93 | 29.07 | 29.14 | 29.13 | 29.09 |
| W7 | Surface | 29.62 | 29.22 | 29.27 | 29.26 | 29.19 | 29.23 | 28.90 | 28.72 | 29.01 | 29.00 | 29.24 | 29.12 | 29.35 | 29.09 | 29.06 |
| | Mid-water | 29.25 | 29.17 | 29.23 | 29.19 | 29.20 | 29.08 | 28.84 | 28.71 | 28.90 | 29.02 | 29.25 | 29.12 | 29.23 | 29.07 | 29.04 |
| | Bottom | 29.20 | 29.06 | 29.21 | 29.03 | 29.21 | 28.85 | 28.83 | 28.70 | 28.85 | 28.95 | 29.25 | 29.13 | 29.15 | 29.07 | 29.06 |
| W10 | Surface | 29.41 | 29.19 | 29.24 | 29.27 | 29.21 | 29.21 | 28.99 | 28.76 | 29.17 | 29.10 | 29.23 | 29.21 | 29.39 | 29.16 | 29.09 |
| | Mid-water | 29.22 | 29.15 | 29.18 | 29.24 | 29.20 | 29.18 | 28.97 | 28.76 | 28.93 | 29.07 | 29.24 | 29.16 | 29.26 | 29.11 | 29.08 |
| | Bottom | 29.18 | 29.10 | 29.12 | 29.07 | 29.19 | 29.18 | 28.97 | 28.75 | 28.85 | 29.04 | 29.24 | 29.15 | 29.16 | 29.08 | 29.07 |
| W11 | Surface | 29.29 | 29.14 | 29.19 | 29.27 | 29.23 | 29.39 | 29.12 | 29.03 | 29.21 | 29.04 | 29.22 | 29.17 | 29.40 | 29.17 | 29.11 |
| | Mid-water | 29.23 | 29.10 | 29.19 | 29.23 | 29.22 | 29.29 | 29.10 | 29.00 | 29.10 | 28.99 | 29.23 | 29.16 | 29.17 | 29.13 | 29.12 |
| | Bottom | 29.04 | 29.12 | 29.19 | 29.04 | 29.23 | 29.29 | 29.05 | 28.97 | 28.95 | 28.97 | 29.23 | 29.15 | 29.11 | 29.15 | 29.12 |
| W14 | Surface | 29.37 | 29.16 | 29.21 | 29.16 | 29.17 | 29.03 | 29.15 | 29.06 | 29.27 | 29.25 | 29.04 | 28.92 | 29.33 | 29.19 | 29.08 |
| | Mid-water | 29.15 | 29.14 | 29.12 | 29.11 | 29.10 | 29.01 | 29.08 | 29.04 | 29.04 | 29.03 | 29.05 | 28.87 | 29.09 | 29.10 | 29.05 |
| | Bottom | 28.81 | 29.13 | 29.09 | 29.07 | 29.11 | 28.99 | 28.98 | 29.04 | 28.95 | 28.97 | 29.05 | 28.86 | 28.91 | 28.96 | 29.05 |
| W15 | Surface | 29.11 | 29.13 | 29.25 | 29.20 | 29.16 | 29.20 | 29.05 | 28.89 | 29.15 | 29.01 | 29.22 | 29.15 | 29.11 | 29.12 | 29.14 |
| | Mid-water | 29.00 | 29.02 | 29.22 | 29.19 | 29.17 | 29.19 | 28.74 | 28.89 | 29.08 | 28.99 | 29.22 | 29.14 | 29.12 | 29.11 | 29.10 |
| | Bottom | 28.88 | 28.80 | 29.19 | 29.20 | 29.17 | 29.21 | 28.68 | 28.88 | 29.05 | 28.98 | 29.19 | 29.13 | 29.13 | 29.09 | 29.10 |
| W16 | Surface | 29.42 | 29.07 | 29.19 | 29.25 | 29.28 | 29.46 | 29.37 | 29.06 | 29.58 | 29.04 | 29.04 | 29.16 | 29.24 | 29.20 | 29.16 |
| | Mid-water | 29.33 | 29.07 | 29.17 | 29.22 | 29.19 | 29.17 | 29.14 | 29.05 | 29.07 | 28.99 | 29.05 | 29.09 | 29.16 | 29.15 | 29.11 |
| | Bottom | 29.27 | 29.06 | 29.17 | 29.19 | 29.18 | 29.14 | 29.10 | 28.97 | 28.94 | 28.96 | 29.03 | 29.09 | 29.12 | 29.13 | 29.09 |
| W19 (Background | Surface | 29.53 | 29.33 | 29.30 | 29.32 | | 29.27 | 29.19 | 29.10 | 29.33 | 29.26 | 29.17 | 29.28 | 29.37 | 29.22 | 29.20 |
| | Mid-water | 29.30 | 29.22 | 29.19 | 29.25 | | 29.16 | 29.15 | 29.11 | 29.16 | 29.13 | 29.17 | 29.14 | 29.24 | 29.19 | 29.14 |
| | Bottom | 29.20 | 29.07 | 29.20 | 29.19 | | 29.13 | 29.14 | 29.12 | 29.13 | 29.09 | 29.16 | 29.13 | 29.17 | 29.17 | 29.12 |
| W20 | Surface | 29.35 | 29.18 | 29.21 | 29.30 | | 29.09 | 29.26 | 28.97 | 29.32 | 29.30 | 29.03 | 29.18 | 29.26 | 29.17 | 29.16 |
| | Mid-water | 29.11 | 29.14 | 29.19 | 29.25 | | 29.03 | 29.13 | 28.93 | 29.10 | 29.14 | 29.03 | 29.09 | 29.24 | 29.16 | 29.14 |
| | Bottom | 29.05 | 29.08 | 29.19 | 29.25 | | 29.02 | 28.94 | 28.83 | 29.04 | 29.03 | 29.01 | 29.12 | 29.27 | 29.17 | 29.07 |
| W25 | Surface | 29.32 | 29.15 | 29.18 | 29.25 | | 29.27 | 29.19 | 29.05 | 29.38 | 29.28 | 29.12 | 29.15 | 29.30 | 29.18 | 29.18 |
| | Mid-water | 29.16 | 29.05 | 29.16 | 29.21 | | 29.11 | 29.06 | 28.98 | 29.08 | 29.07 | 29.12 | 29.09 | 29.15 | 29.15 | 29.11 |
| | Bottom | 29.01 | 28.99 | 29.15 | 29.20 | | 29.07 | 29.03 | 28.96 | 29.05 | 29.02 | 29.12 | 29.08 | 29.14 | 29.14 | 29.08 |
| W26 | Surface | 29.22 | 29.20 | 29.12 | 29.30 | | 29.28 | 29.22 | 28.95 | 29.51 | 29.02 | 28.89 | 29.20 | 29.30 | 29.17 | 29.06 |
| | Mid-water | 29.03 | 29.13 | 29.10 | 29.29 | | 29.11 | 28.97 | 28.85 | 28.97 | 28.83 | 28.85 | 29.14 | 29.16 | 29.16 | 29.03 |
| | Bottom | 28.98 | 29.12 | 29.10 | 29.25 | | 29.02 | 28.90 | 28.84 | 28.82 | 28.78 | 28.84 | 29.13 | 29.10 | 29.07 | 29.01 |
| W27 (Background | Surface | 29.07 | 29.11 | 29.10 | 29.26 | | 29.34 | 29.12 | 28.96 | 29.35 | 29.38 | 28.81 | 29.31 | 29.36 | 29.12 | 28.95 |
| | Mid-water | 28.89 | 29.11 | 29.09 | 29.23 | | 29.20 | 28.85 | 28.77 | 29.00 | 29.00 | 28.81 | 29.02 | 29.13 | 28.90 | 28.91 |
| | Bottom | 28.69 | 29.03 | 29.07 | 29.21 | | 29.10 | 28.79 | 28.56 | 29.06 | 28.97 | 28.77 | 28.95 | 29.08 | 28.82 | 28.88 |
| W36 | Surface | 29.08 | 28.99 | 29.05 | 29.15 | 29.14 | 29.26 | 29.07 | 28.89 | 29.08 | 28.92 | 28.96 | 29.30 | 29.10 | 29.11 | 29.14 |
| | Mid-water | 28.69 | 28.98 | 29.05 | 28.97 | 29.18 | 29.19 | 29.06 | 28.88 | 28.96 | 28.91 | 28.93 | 29.14 | 29.07 | 29.11 | 29.10 |
| | Bottom | 28.61 | 28.97 | 29.05 | 28.93 | 29.22 | 29.18 | 28.95 | 28.85 | 28.93 | 28.90 | 28.89 | 29.07 | 29.07 | 29.11 | 29.08 |
| W45 | Surface | 28.96 | 29.26 | 29.13 | 29.33 | | 29.12 | 29.35 | 29.05 | 29.43 | 29.22 | 28.95 | 29.27 | 29.35 | 29.12 | 29.23 |
| | Mid-water | 28.97 | 29.17 | 29.13 | 29.22 | | 29.02 | 29.05 | 28.96 | 29.10 | 28.97 | 28.96 | 29.11 | 29.21 | 29.12 | 29.16 |
| | Bottom | 28.93 | 29.12 | 29.11 | 29.16 | | 29.02 | 28.98 | 28.84 | 28.88 | 28.89 | 28.96 | 29.08 | 29.14 | 29.12 | 29.09 |
| W46 | Surface | 29.25 | 29.21 | 29.12 | 29.33 | | 29.14 | 29.24 | 29.02 | 29.44 | 29.19 | 28.99 | 29.22 | 29.34 | 29.16 | 29.18 |
| | Mid-water | 29.18 | 29.21 | 29.12 | 29.29 | | 29.01 | 28.96 | 28.98 | 29.30 | 29.13 | 28.99 | 29.19 | 29.26 | 29.16 | 29.05 |
| | Bottom | 29.13 | 29.19 | 29.09 | 29.22 | | 28.97 | 28.88 | 28.96 | 29.02 | 29.06 | 29.00 | 29.19 | 29.23 | 29.16 | 29.03 |
| W47 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W51 | Surface | 29.19 | 29.23 | 29.18 | 29.27 | | 29.24 | 29.17 | 29.05 | 29.38 | 29.20 | 29.07 | 29.22 | 29.27 | 29.17 | 29.16 |
| | Mid-water | 29.07 | 29.17 | 29.18 | 29.26 | | 29.17 | 29.03 | 29.01 | 28.98 | 29.05 | 29.05 | 29.11 | 29.21 | 29.14 | 29.10 |
| | Bottom | 28.93 | 29.15 | 29.16 | 29.25 | | 29.08 | 28.98 | 29.00 | 28.86 | 29.06 | 29.05 | 29.08 | 29.17 | 29.13 | 29.06 |

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| | Date | 2020-Aug-11 | 2020-Aug-12 | 2020-Aug-13 | 2020-Aug-14 | 2020-Aug-15 | 2020-Aug-16 | 2020-Aug-17 | 2020-Aug-18 | 2020-Aug-19 | 2020-Aug-20 | 2020-Aug-21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp | Temp |
| W2 | Surface | 29.19 | 29.22 | 29.42 | 29.34 | 29.43 | 29.37 | 29.42 | 29.38 | 29.46 | 29.47 | 29.52 |
| | Mid-water | 29.08 | 29.14 | 29.23 | 29.27 | 29.30 | 29.22 | 29.24 | 29.33 | 29.38 | 29.34 | 29.41 |
| | Bottom | 29.07 | 29.14 | 29.20 | 29.24 | 29.28 | 29.22 | 29.20 | 29.28 | 29.07 | 29.24 | 29.30 |
| W5 | Surface | 29.20 | 29.21 | 29.34 | 29.30 | 29.24 | 29.31 | 30.03 | 29.45 | 29.58 | 29.38 | 29.45 |
| | Mid-water | 29.10 | 29.13 | 29.07 | 29.18 | 29.15 | 29.22 | 29.33 | 29.20 | 29.51 | 29.23 | 29.25 |
| | Bottom | 29.11 | 29.11 | 29.05 | 29.13 | 29.12 | 29.21 | 29.11 | 29.14 | 29.46 | 29.17 | 29.13 |
| W7 | Surface | 29.24 | 29.33 | 29.19 | 29.52 | 29.22 | 29.76 | 29.37 | 29.51 | 29.54 | 29.63 | 29.46 |
| | Mid-water | 29.16 | 29.19 | 29.14 | 29.41 | 29.10 | 29.44 | 29.10 | 29.32 | 29.20 | 29.02 | 29.43 |
| | Bottom | 29.15 | 29.19 | 29.09 | 29.44 | 29.08 | 29.07 | 28.81 | 29.23 | 28.73 | 28.83 | 29.39 |
| W10 | Surface | 29.17 | 29.22 | 29.30 | 29.48 | 29.73 | 29.52 | 29.76 | 29.62 | 29.55 | 29.68 | 29.42 |
| | Mid-water | 29.10 | 29.15 | 29.25 | 29.42 | 29.48 | 29.36 | 29.06 | 29.46 | 29.20 | 29.58 | 29.40 |
| | Bottom | 29.10 | 29.13 | 29.12 | 29.41 | 29.25 | 29.25 | 28.91 | 29.31 | 29.00 | 29.16 | 29.33 |
| W11 | Surface | 29.13 | 29.22 | 29.25 | 29.42 | 29.52 | 29.62 | 29.57 | 29.49 | 29.32 | 29.55 | 29.42 |
| | Mid-water | 29.10 | 29.16 | 29.22 | 29.39 | 29.25 | 29.38 | 29.41 | 29.34 | 29.28 | 29.52 | 29.37 |
| | Bottom | 29.08 | 29.15 | 29.12 | 29.36 | 29.20 | 29.04 | 29.37 | 29.31 | 29.51 | 29.42 | 29.38 |
| W14 | Surface | 29.20 | 29.32 | 29.36 | 29.47 | 29.69 | 29.77 | 29.76 | 29.78 | 30.11 | 29.63 | 29.72 |
| | Mid-water | 29.11 | 29.10 | 29.19 | 29.29 | 29.35 | 29.43 | 29.49 | 29.50 | 29.64 | 29.55 | 29.62 |
| | Bottom | 29.08 | 29.03 | 29.09 | 29.26 | 29.32 | 29.33 | 29.40 | 29.46 | 29.47 | 29.50 | 29.54 |
| W15 | Surface | 29.21 | 29.31 | 29.13 | 29.41 | 29.12 | 29.87 | 29.64 | 29.54 | 29.57 | 29.37 | 29.24 |
| | Mid-water | 29.12 | 29.15 | 29.08 | 29.30 | 29.07 | 29.56 | 29.26 | 29.36 | 29.45 | 29.30 | 29.23 |
| | Bottom | 29.11 | 29.11 | 29.02 | 29.20 | 29.05 | 29.27 | 28.93 | 29.38 | 29.25 | 29.15 | 28.97 |
| W16 | Surface | 29.38 | 29.40 | 29.61 | 29.53 | 29.59 | 29.43 | 29.99 | 29.57 | 29.60 | 29.47 | 29.63 |
| | Mid-water | 29.16 | 29.12 | 29.25 | 29.26 | 29.35 | 29.30 | 29.37 | 29.23 | 29.33 | 29.39 | 29.53 |
| | Bottom | 29.14 | 29.11 | 29.11 | 29.19 | 29.29 | 29.25 | 29.23 | 29.22 | 29.28 | 29.37 | 29.36 |
| W19 (Background | Surface | 29.30 | 29.45 | 29.47 | 29.46 | 29.63 | 29.29 | 29.57 | 29.59 | 29.28 | 29.49 | 29.61 |
| | Mid-water | 29.14 | 29.18 | 29.30 | 29.30 | 29.40 | 29.25 | 29.41 | 29.37 | 29.10 | 29.29 | 29.43 |
| | Bottom | 29.12 | 29.14 | 29.27 | 29.25 | 29.34 | 29.20 | 29.26 | 29.12 | 28.67 | 29.23 | 29.27 |
| W20 | Surface | 29.43 | 29.71 | 29.69 | 29.52 | 30.09 | 29.45 | 29.68 | 29.79 | 29.53 | 29.38 | 29.77 |
| | Mid-water | 29.16 | 29.18 | 29.24 | 29.27 | 29.23 | 29.30 | 29.35 | 29.21 | 29.22 | 29.18 | 29.51 |
| | Bottom | 29.08 | 29.12 | 29.18 | 29.21 | 29.14 | 29.24 | 29.29 | 29.12 | 29.20 | 29.13 | 29.32 |
| W25 | Surface | 29.26 | 29.58 | 29.59 | 29.50 | 30.02 | 29.40 | 29.49 | 29.63 | 29.40 | 29.38 | 29.64 |
| | Mid-water | 29.14 | 29.16 | 29.23 | 29.25 | 29.37 | 29.41 | 29.21 | 29.19 | 29.35 | 29.02 | 29.40 |
| | Bottom | 29.11 | 29.12 | 29.21 | 29.22 | 29.31 | 29.32 | 29.10 | 29.10 | 29.25 | 28.97 | 29.21 |
| W26 | Surface | 29.34 | 29.62 | 29.63 | 29.59 | 30.01 | 29.80 | 29.45 | 29.39 | 29.74 | 29.62 | 29.28 |
| | Mid-water | 29.17 | 29.14 | 29.19 | 29.40 | 29.39 | 29.40 | 29.30 | 29.30 | 29.10 | 29.39 | 29.01 |
| | Bottom | 29.01 | 29.07 | 29.17 | 29.22 | 29.24 | 29.29 | 29.28 | 29.17 | 28.87 | 29.09 | 28.85 |
| W27 (Background | Surface | 29.22 | 29.58 | 29.85 | 29.58 | 29.98 | 29.77 | 29.20 | 29.79 | 29.85 | 29.74 | 29.24 |
| | Mid-water | 29.02 | 29.08 | 29.26 | 29.23 | 29.34 | 29.30 | 28.88 | 29.38 | 29.31 | 29.22 | 29.17 |
| | Bottom | 28.99 | 28.98 | 29.15 | 29.14 | 29.11 | 29.21 | 28.83 | 29.21 | 29.15 | 29.14 | 29.02 |
| W36 | Surface | 29.16 | 29.25 | 29.09 | 29.35 | 29.23 | 29.24 | 29.50 | 29.80 | 29.31 | 30.01 | 29.30 |
| | Mid-water | 29.08 | 29.17 | 29.05 | 29.25 | 29.11 | 29.14 | 29.14 | 29.36 | 29.23 | 29.38 | 29.00 |
| | Bottom | 29.06 | 29.11 | 28.97 | 29.18 | 29.11 | 28.94 | 29.06 | 29.10 | 29.16 | 29.29 | 28.95 |
| W45 | Surface | 29.37 | 29.52 | 29.58 | 29.59 | 30.27 | 29.65 | 29.25 | 29.51 | 29.63 | 29.73 | 29.53 |
| | Mid-water | 29.13 | 29.18 | 29.19 | 29.26 | 29.35 | 29.25 | 29.04 | 29.34 | 29.38 | 29.43 | 29.35 |
| | Bottom | 29.07 | 29.15 | 29.10 | 29.18 | 29.11 | 29.08 | 28.96 | 29.07 | 29.04 | 29.35 | 29.23 |
| W46 | Surface | 29.29 | 29.54 | 29.55 | 29.68 | 30.00 | 30.06 | 29.27 | 29.61 | 29.59 | 29.44 | 29.86 |
| | Mid-water | 29.09 | 29.17 | 29.15 | 29.30 | 29.20 | 29.16 | 29.16 | 29.33 | 29.37 | 29.25 | 29.39 |
| | Bottom | 29.06 | 29.12 | 29.04 | 29.04 | 29.11 | 29.09 | 29.08 | 29.00 | 29.11 | 29.25 | 29.33 |
| W47 | Surface | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | |
| W51 | Surface | 29.35 | 29.45 | 29.69 | 29.61 | 29.45 | 29.33 | 29.58 | 29.48 | 29.48 | 29.34 | 29.44 |
| | Mid-water | 29.19 | 29.12 | 29.20 | 29.21 | 29.32 | 29.32 | 29.28 | 29.31 | 29.30 | 29.24 | 29.17 |
| | Bottom | 29.19 | 29.09 | 29.16 | 29.13 | 29.32 | 29.28 | 29.23 | 29.24 | 28.97 | 29.09 | 29.09 |

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## *Table 11: 28th May until 21st August 2020 Daily Average pH Data*

| | Date | 2020-May-28 | 2020-May-29 | 2020-May-30 | 2020-May-31 | 2020-Jun-01 | 2020-Jun-02 | 2020-Jun-03 | 2020-Jun-04 | 2020-Jun-05 | 2020-Jun-06 | 2020-Jun-07 | 2020-Jun-08 | 2020-Jun-09 | 2020-Jun-10 | 2020-Jun-11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH |
| W2 | Surface | 7.72 | 7.93 | 7.77 | 7.48 | 7.18 | 8.54 | 8.39 | 9.46 | 8.52 | 8.64 | 8.20 | 8.52 | 8.19 | 8.22 | 8.16 |
| | Mid-water | 7.82 | 7.97 | 7.79 | 7.50 | 7.19 | 8.54 | 8.50 | 8.90 | 8.61 | 8.76 | 7.90 | 8.45 | 8.32 | 8.26 | 8.24 |
| | Bottom | 7.81 | 8.04 | 7.80 | 7.52 | 7.08 | 8.51 | 8.73 | 8.51 | 8.69 | 8.76 | 8.09 | 8.55 | 8.30 | 8.34 | 8.28 |
| W5 | Surface | 7.99 | 8.06 | 7.55 | 7.45 | 7.43 | 8.81 | 8.94 | 8.94 | 8.96 | 8.70 | 8.37 | 8.42 | 7.98 | 8.50 | 8.70 |
| | Mid-water | 8.08 | 8.07 | 7.38 | 7.44 | 7.49 | 8.77 | 8.93 | 8.98 | 9.06 | 8.70 | 8.35 | 8.38 | 8.06 | 8.50 | 8.81 |
| | Bottom | 8.06 | 8.08 | 7.36 | 7.39 | 7.47 | 8.65 | 8.87 | 9.25 | 8.99 | 8.63 | 8.24 | 8.34 | 8.07 | 8.47 | 8.80 |
| W7 | Surface | 7.89 | 7.76 | 7.60 | 7.25 | 7.48 | 8.64 | 8.72 | 9.62 | 8.86 | 8.63 | 8.33 | 8.41 | 8.21 | 8.41 | 8.54 |
| | Mid-water | 7.89 | 7.50 | 7.67 | 7.27 | 7.44 | 8.62 | 8.83 | 9.55 | 8.94 | 8.65 | 8.30 | 8.38 | 8.14 | 8.39 | 8.49 |
| | Bottom | 7.90 | 7.65 | 7.66 | 7.27 | 7.36 | 8.56 | 8.57 | 9.59 | 8.91 | 8.68 | 8.17 | 8.38 | 8.21 | 8.37 | 8.44 |
| W10 | Surface | 7.60 | 7.76 | 7.68 | 7.19 | 7.47 | 8.72 | 8.82 | 9.91 | 8.88 | 8.78 | 8.23 | 8.43 | 8.18 | 8.32 | 8.48 |
| | Mid-water | 7.45 | 7.83 | 7.62 | 7.05 | 7.50 | 8.69 | 8.79 | 9.91 | 8.90 | 8.75 | 8.27 | 8.39 | 8.16 | 8.25 | 8.42 |
| | Bottom | 7.21 | 7.67 | 7.60 | 7.23 | 7.41 | 8.64 | 8.68 | 9.90 | 8.76 | 8.71 | 8.22 | 8.05 | 8.20 | 8.28 | 8.42 |
| W11 | Surface | 7.69 | 7.86 | 7.70 | 6.88 | 7.36 | 8.71 | 8.72 | 9.83 | 8.76 | 8.52 | 8.21 | 8.41 | 8.17 | 8.28 | 8.39 |
| | Mid-water | 7.62 | 7.90 | 7.69 | 7.06 | 7.34 | 8.67 | 8.77 | 9.70 | 8.75 | 8.58 | 8.31 | 8.34 | 8.22 | 8.21 | 8.34 |
| | Bottom | 7.74 | 7.87 | 7.70 | 6.95 | 7.21 | 8.62 | 8.60 | 9.67 | 8.64 | 8.59 | 8.28 | 8.42 | 8.25 | 8.18 | 8.31 |
| W14 | Surface | 7.97 | 8.09 | 7.89 | 7.61 | 7.09 | 8.61 | 8.90 | 8.77 | 8.75 | 9.00 | 8.23 | 8.87 | 8.46 | 8.64 | 8.45 |
| | Mid-water | 7.93 | 8.02 | 7.90 | 7.65 | 7.12 | 8.61 | 8.98 | 8.72 | 8.89 | 8.99 | 8.30 | 8.98 | 8.52 | 8.66 | 8.56 |
| | Bottom | 8.02 | 8.02 | 7.88 | 7.70 | 7.17 | 8.57 | 8.98 | 8.80 | 9.21 | 9.11 | 8.27 | 9.06 | 8.53 | 8.77 | 8.77 |
| W15 | Surface | 7.83 | 8.08 | 7.54 | 7.43 | 7.31 | 8.67 | 8.92 | 9.52 | 8.98 | 8.60 | 8.44 | 8.38 | 7.92 | 8.49 | 8.78 |
| | Mid-water | 7.76 | 8.08 | 7.55 | 7.44 | 7.28 | 8.66 | 8.80 | 9.61 | 9.03 | 8.59 | 8.37 | 8.36 | 8.06 | 8.50 | 8.85 |
| | Bottom | 8.02 | 8.10 | 7.46 | 7.48 | 7.22 | 8.62 | 8.66 | 9.72 | 8.97 | 8.55 | 8.22 | 8.36 | 8.02 | 8.43 | 8.87 |
| W16 | Surface | 7.80 | 7.91 | 7.69 | 7.00 | 7.29 | 8.52 | 8.58 | 9.80 | 8.57 | 8.51 | 8.02 | 8.15 | 8.13 | 8.09 | 8.35 |
| | Mid-water | 7.84 | 7.96 | 7.69 | 7.04 | 7.33 | 8.52 | 8.52 | 9.78 | 8.61 | 8.47 | 8.06 | 8.04 | 8.21 | 8.09 | 8.26 |
| | Bottom | 7.81 | 8.02 | 7.75 | 6.87 | 7.30 | 8.47 | 8.46 | 9.79 | 8.55 | 8.56 | 8.11 | 8.29 | 8.17 | 8.09 | 8.26 |
| W19 (Background | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W20 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W25 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W26 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W27 (Background | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W36 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W45 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W46 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W47 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W51 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |

Boskalis
Dredging & Marine Experts

| | Date | 2020-Jun-12 | 2020-Jun-13 | 2020-Jun-14 | 2020-Jun-15 | 2020-Jun-16 | 2020-Jun-17 | 2020-Jun-18 | 2020-Jun-19 | 2020-Jun-20 | 2020-Jun-21 | 2020-Jun-22 | 2020-Jun-23 | 2020-Jun-24 | 2020-Jun-25 | 2020-Jun-26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH |
| W2 | Surface | 7.97 | 7.82 | 8.09 | 8.67 | 9.04 | 9.06 | 9.12 | 8.12 | 6.42 | 6.23 | 7.03 | 8.40 | 8.18 | 8.98 | 9.11 |
| | Mid-water | 7.91 | 7.75 | 7.94 | 8.66 | 8.91 | 9.03 | 9.14 | 8.51 | 6.10 | 5.69 | 6.70 | 8.38 | 7.98 | 9.03 | 9.15 |
| | Bottom | 7.93 | 7.80 | 7.83 | 8.52 | 8.77 | 9.06 | 9.17 | 8.51 | 6.90 | 5.65 | 6.72 | 8.36 | 8.14 | 9.00 | 9.17 |
| W5 | Surface | 8.48 | 8.25 | 8.58 | 9.01 | 8.83 | 9.09 | 9.08 | 8.52 | 6.16 | 6.43 | 7.34 | 8.29 | 8.41 | 9.15 | 9.11 |
| | Mid-water | 8.37 | 8.21 | 8.42 | 8.99 | 8.83 | 9.06 | 9.06 | 8.41 | 6.17 | 5.86 | 7.28 | 8.32 | 8.73 | 9.16 | 9.11 |
| | Bottom | 8.40 | 8.18 | 8.31 | 8.97 | 9.18 | 9.03 | 9.09 | 8.48 | 6.19 | 6.03 | 7.28 | 8.29 | 8.62 | 9.19 | 9.13 |
| W7 | Surface | 7.95 | 8.10 | 8.23 | 8.65 | 9.01 | 9.04 | 9.12 | 7.51 | 7.23 | 6.26 | 7.31 | 8.39 | 8.37 | 9.20 | 9.10 |
| | Mid-water | 8.00 | 7.97 | 8.13 | 8.66 | 8.94 | 9.01 | 9.11 | 7.60 | 7.32 | 5.86 | 7.25 | 8.31 | 8.29 | 9.18 | 9.00 |
| | Bottom | 8.03 | 7.52 | 8.07 | 8.71 | 8.85 | 9.04 | 9.15 | 7.52 | 7.20 | 6.09 | 7.36 | 8.25 | 8.25 | 9.00 | 9.06 |
| W10 | Surface | 8.23 | 7.61 | 8.25 | 8.64 | 8.91 | 9.04 | 9.24 | 7.56 | 7.47 | 6.46 | 7.09 | 8.64 | 8.47 | 9.15 | 9.06 |
| | Mid-water | 8.22 | 7.47 | 8.04 | 8.61 | 8.98 | 9.04 | 9.24 | 7.56 | 7.49 | 6.03 | 7.10 | 8.48 | 8.39 | 9.10 | 9.09 |
| | Bottom | 8.20 | 7.74 | 7.77 | 8.62 | 8.97 | 9.07 | 9.23 | 7.76 | 7.53 | 6.22 | 7.21 | 8.55 | 8.32 | 9.01 | 9.19 |
| W11 | Surface | 8.34 | 7.67 | 8.10 | 8.48 | 8.65 | 9.04 | 9.22 | 7.58 | 7.33 | 6.05 | 7.14 | 8.34 | 8.67 | 9.12 | 9.05 |
| | Mid-water | 8.31 | 7.59 | 8.01 | 8.47 | 8.85 | 9.01 | 9.22 | 6.92 | 7.27 | 5.86 | 7.08 | 8.20 | 8.38 | 8.94 | 8.90 |
| | Bottom | 8.25 | 7.57 | 7.95 | 8.57 | 8.95 | 9.02 | 9.26 | 7.46 | 7.39 | 5.99 | 7.05 | 8.16 | 8.42 | 9.04 | 8.97 |
| W14 | Surface | 8.17 | 8.24 | 8.43 | 8.78 | 9.04 | 9.00 | 9.14 | 8.25 | 8.53 | 6.43 | 7.21 | 8.55 | 8.03 | 8.91 | 9.18 |
| | Mid-water | 8.12 | 8.37 | 8.35 | 8.89 | 8.99 | 8.99 | 9.11 | 8.15 | 8.52 | 6.55 | 7.18 | 8.41 | 8.14 | 8.92 | 9.18 |
| | Bottom | 8.21 | 8.34 | 8.24 | 9.17 | 8.98 | 9.00 | 9.14 | 8.14 | 8.51 | 6.45 | 7.11 | 8.38 | 8.17 | 8.89 | 9.18 |
| W15 | Surface | 8.04 | 7.73 | 8.71 | 8.80 | 8.69 | 9.06 | 9.08 | 8.05 | 6.33 | 6.30 | 7.37 | 8.33 | 8.47 | 9.09 | 9.03 |
| | Mid-water | 8.01 | 7.97 | 8.69 | 8.55 | 8.65 | 9.00 | 8.96 | 7.61 | 6.30 | 5.94 | 7.28 | 8.33 | 8.26 | 9.02 | 9.02 |
| | Bottom | 7.95 | 8.13 | 8.71 | 8.61 | 8.73 | 9.06 | 9.03 | 7.86 | 6.18 | 6.18 | 7.45 | 8.36 | 8.34 | 8.68 | 9.02 |
| W16 | Surface | 8.30 | 7.85 | 8.09 | 8.73 | 9.12 | 9.08 | 9.20 | 8.07 | 7.85 | 6.12 | 8.28 | 8.49 | 8.51 | 9.22 | 9.21 |
| | Mid-water | 8.17 | 7.72 | 7.99 | 8.67 | 9.14 | 9.09 | 9.18 | 7.83 | 7.84 | 5.86 | 8.32 | 8.51 | 8.39 | 9.26 | 9.24 |
| | Bottom | 8.14 | 7.78 | 7.93 | 8.53 | 9.17 | 9.11 | 9.16 | 7.86 | 7.84 | 5.76 | 8.28 | 8.57 | 8.44 | 9.22 | 9.20 |
| W19 (Background | Surface | 8.39 | | 8.97 | 9.16 | 9.08 | 9.14 | 9.01 | 8.12 | 8.07 | 6.64 | 7.93 | 8.62 | 8.74 | 9.30 | 9.19 |
| | Mid-water | 8.57 | | 8.96 | 9.14 | 9.11 | 9.14 | 9.08 | 8.00 | 8.03 | 6.62 | 7.89 | 8.53 | 8.70 | 9.16 | 9.24 |
| | Bottom | 8.43 | | 9.04 | 9.27 | 9.20 | 9.16 | 9.21 | 8.15 | 8.12 | 6.81 | 7.92 | 8.60 | 8.71 | 9.36 | 9.25 |
| W20 | Surface | 8.19 | | 8.95 | 9.04 | 9.08 | 8.97 | 9.26 | 8.27 | 7.83 | 7.30 | 8.27 | 8.63 | 9.04 | 9.36 | |
| | Mid-water | 8.14 | | 8.96 | 8.95 | 9.25 | 8.95 | 9.24 | 8.27 | 7.84 | 7.25 | 8.28 | 8.61 | 8.77 | 9.36 | |
| | Bottom | 8.18 | | 9.00 | 9.12 | 9.09 | 8.99 | 9.25 | 8.69 | 7.82 | 7.25 | 8.35 | 8.62 | 8.91 | 9.38 | |
| W25 | Surface | 8.20 | | 8.94 | 9.07 | 9.15 | 8.99 | 9.19 | 6.89 | 7.09 | 7.15 | 8.85 | 8.65 | 8.81 | 9.20 | |
| | Mid-water | 8.18 | | 8.89 | 9.04 | 9.20 | 9.02 | 9.15 | 8.00 | 7.73 | 7.03 | 8.72 | 8.44 | 8.72 | 9.31 | |
| | Bottom | 8.22 | | 8.98 | 9.12 | 9.28 | 9.01 | 9.16 | 8.46 | 7.84 | 7.16 | 8.78 | 8.62 | 8.86 | 9.26 | |
| W26 | Surface | | | | | | | 9.20 | 8.38 | 8.38 | 7.80 | 8.23 | 8.74 | 9.12 | 9.34 | |
| | Mid-water | | | | | | | 9.21 | 8.48 | 8.27 | 7.71 | 8.16 | 8.72 | 9.12 | 9.35 | |
| | Bottom | | | | | | | 9.17 | 8.30 | 8.32 | 7.72 | 8.27 | 8.73 | 9.03 | 9.35 | |
| W27 (Background | Surface | 8.20 | | 8.85 | 8.93 | 9.30 | 9.00 | 9.09 | 8.29 | 8.33 | 7.70 | 8.29 | 8.61 | 9.04 | 9.36 | |
| | Mid-water | 8.15 | | 8.80 | 8.78 | 9.30 | 8.96 | 9.04 | 7.74 | 8.30 | 7.65 | 8.17 | 8.45 | 8.98 | 9.36 | |
| | Bottom | 8.05 | | 8.89 | 8.89 | 9.34 | 8.99 | 9.02 | 8.04 | 8.38 | 7.56 | 8.31 | 8.48 | 9.05 | 9.35 | |
| W36 | Surface | 8.24 | | 8.90 | 8.66 | 8.81 | | 9.13 | 8.95 | 8.76 | 7.75 | 8.00 | 8.78 | 9.18 | 9.43 | 9.35 |
| | Mid-water | 8.17 | | 8.93 | 8.08 | 8.83 | | 9.00 | 8.65 | 8.72 | 7.69 | 8.03 | 8.66 | 9.11 | 9.39 | 9.37 |
| | Bottom | 8.06 | | 8.98 | 8.80 | 8.78 | | 9.20 | 7.35 | 8.79 | 7.77 | 8.06 | 8.65 | 9.07 | 9.39 | 9.38 |
| W45 | Surface | 8.25 | | 8.85 | 8.72 | 8.99 | | 9.33 | 8.99 | 8.60 | 7.87 | 7.93 | 8.82 | 9.02 | 9.37 | 9.01 |
| | Mid-water | 8.20 | | 8.80 | 8.62 | 9.04 | | 9.23 | 8.98 | 8.52 | 7.74 | 7.97 | 8.75 | 9.03 | 9.36 | 8.98 |
| | Bottom | 8.21 | | 8.89 | 8.83 | 9.08 | | 9.37 | 8.79 | 8.58 | 7.80 | 8.06 | 8.72 | 9.07 | 9.38 | 9.05 |
| W46 | Surface | 8.24 | | 8.75 | 8.83 | 9.18 | | 9.35 | 9.12 | 8.53 | 7.96 | 8.51 | 8.72 | 8.97 | 9.34 | |
| | Mid-water | 8.23 | | 8.72 | 8.54 | 9.20 | | 9.42 | 9.11 | 8.61 | 7.72 | 8.36 | 8.62 | 8.98 | 9.35 | |
| | Bottom | 8.21 | | 8.63 | 8.78 | 9.20 | | 9.36 | 9.17 | 8.62 | 7.89 | 8.39 | 8.62 | 9.09 | 9.34 | |
| W47 | Surface | 8.15 | | 8.61 | 8.83 | 9.25 | | 9.32 | 9.15 | 8.61 | 8.36 | 8.18 | | | | |
| | Mid-water | 8.19 | | 8.51 | 8.56 | 9.26 | | 9.28 | 9.14 | 8.54 | 8.17 | 8.14 | | | | |
| | Bottom | 8.26 | | 8.56 | 8.61 | 9.31 | | 9.30 | 9.15 | 8.64 | 8.30 | 8.26 | | | | |
| W51 | Surface | 8.03 | | 8.82 | 9.00 | 9.17 | 9.03 | 9.18 | 7.61 | 7.95 | 7.17 | 8.33 | 8.50 | 8.98 | 9.41 | |
| | Mid-water | 8.00 | | 8.67 | 8.94 | 9.24 | 9.02 | 9.14 | 6.59 | 7.88 | 6.83 | 8.34 | 8.44 | 8.90 | 9.40 | |
| | Bottom | 8.03 | | 8.89 | 8.97 | 8.90 | 9.04 | 9.18 | 8.22 | 7.87 | 7.03 | 8.48 | 8.51 | 8.91 | 9.41 | |

Boskalis
Dredging & Marine Experts

| | Date | 2020-Jun-27 | 2020-Jun-28 | 2020-Jun-29 | 2020-Jun-30 | 2020-Jul-01 | 2020-Jul-02 | 2020-Jul-03 | 2020-Jul-04 | 2020-Jul-05 | 2020-Jul-06 | 2020-Jul-07 | 2020-Jul-08 | 2020-Jul-09 | 2020-Jul-10 | 2020-Jul-11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH |
| W2 | Surface | 9.21 | 9.19 | 9.12 | 8.96 | 8.93 | 7.49 | 8.00 | 7.84 | 8.17 | | 8.07 | 7.60 | 7.80 | 7.64 | 7.82 |
| | Mid-water | 9.21 | 9.21 | 9.21 | 9.00 | 9.06 | 7.67 | 7.98 | 7.88 | 8.20 | | 8.07 | 7.60 | 7.79 | 7.66 | 7.82 |
| | Bottom | 9.21 | 9.20 | 9.20 | 8.98 | 8.97 | 7.63 | 7.88 | 7.91 | 8.24 | | 8.12 | 7.60 | 7.78 | 7.66 | 7.84 |
| W5 | Surface | 8.82 | 9.17 | 9.06 | 9.13 | 9.00 | 8.01 | 8.05 | 7.81 | 7.97 | | 7.85 | 7.67 | 7.72 | 7.64 | 7.92 |
| | Mid-water | 8.77 | 9.16 | 9.02 | 9.11 | 9.07 | 7.99 | 8.09 | 7.82 | 8.05 | | 7.69 | 7.57 | 7.79 | 7.66 | 7.90 |
| | Bottom | 8.76 | 9.18 | 9.01 | 9.08 | 9.07 | 8.01 | 8.04 | 7.89 | 8.06 | | 7.59 | 7.37 | 7.79 | 7.66 | 7.91 |
| W7 | Surface | 9.15 | 9.17 | 9.29 | 9.29 | 9.06 | 8.08 | 7.84 | 7.79 | 8.05 | 7.61 | 7.88 | 7.76 | 7.80 | 7.57 | 7.79 |
| | Mid-water | 9.10 | 9.26 | 9.36 | 9.29 | 9.14 | 8.14 | 8.02 | 7.84 | 8.05 | 7.74 | 7.87 | 7.75 | 7.80 | 7.60 | 7.81 |
| | Bottom | 9.03 | 9.32 | 9.30 | 9.26 | 9.13 | 8.15 | 7.94 | 7.83 | 8.03 | 8.12 | 7.78 | 7.75 | 7.80 | 7.60 | 7.84 |
| W10 | Surface | 9.17 | 9.25 | 9.20 | 9.23 | 9.12 | 8.13 | 8.05 | 8.01 | 8.03 | 8.07 | 7.88 | 7.77 | 7.69 | 7.57 | 7.89 |
| | Mid-water | 9.17 | 9.26 | 9.29 | 9.19 | 9.12 | 8.19 | 8.12 | 8.09 | 8.09 | 8.04 | 7.90 | 7.76 | 7.81 | 7.60 | 7.90 |
| | Bottom | 9.20 | 9.24 | 9.29 | 9.24 | 9.08 | 8.14 | 8.16 | 8.08 | 8.10 | 7.98 | 7.89 | 7.76 | 7.77 | 7.60 | 7.92 |
| W11 | Surface | 9.23 | 9.21 | 9.33 | 9.16 | 9.07 | 8.15 | 8.14 | 7.93 | 8.09 | 8.00 | 7.94 | 7.79 | 7.85 | 7.63 | 7.77 |
| | Mid-water | 9.18 | 9.20 | 9.39 | 9.24 | 9.07 | 8.21 | 8.18 | 7.96 | 8.05 | 8.08 | 7.95 | 7.81 | 7.86 | 7.66 | 7.90 |
| | Bottom | 9.14 | 9.22 | 9.37 | 9.16 | 9.07 | 8.23 | 8.09 | 8.01 | 8.03 | 8.08 | 7.93 | 7.81 | 7.84 | 7.66 | 7.95 |
| W14 | Surface | 9.28 | 9.26 | 9.13 | 9.06 | 8.97 | 7.60 | 7.77 | 7.96 | 8.15 | 8.18 | 8.17 | 7.60 | 7.81 | 7.62 | 7.88 |
| | Mid-water | 9.25 | 9.25 | 9.22 | 9.03 | 8.89 | 7.36 | 7.76 | 7.95 | 8.18 | 8.20 | 8.13 | 7.46 | 7.78 | 7.63 | 7.85 |
| | Bottom | 9.24 | 9.21 | 9.10 | 8.99 | 8.92 | 6.83 | 7.71 | 7.97 | 8.22 | 8.22 | 8.11 | 7.36 | 7.74 | 7.62 | 7.85 |
| W15 | Surface | 8.93 | 9.14 | 9.22 | 9.26 | 9.04 | 8.06 | 8.07 | 7.86 | 8.00 | 8.21 | 7.80 | 7.61 | 7.70 | 7.61 | 7.89 |
| | Mid-water | 8.87 | 9.11 | 9.28 | 9.28 | 9.08 | 8.11 | 8.11 | 7.93 | 8.01 | 8.20 | 7.87 | 7.59 | 7.70 | 7.60 | 7.90 |
| | Bottom | 8.89 | 9.11 | 9.24 | 9.27 | 9.07 | 8.12 | 8.11 | 7.96 | 8.03 | 8.21 | 7.89 | 7.58 | 7.58 | 7.46 | 7.92 |
| W16 | Surface | 9.24 | 9.17 | 9.05 | 9.03 | 9.06 | 8.18 | 8.06 | 8.01 | 8.18 | | 8.00 | 7.76 | 7.88 | 7.65 | 7.87 |
| | Mid-water | 9.23 | 9.17 | 8.97 | 9.03 | 9.04 | 8.25 | 8.07 | 8.13 | 8.10 | | 7.99 | 7.73 | 7.86 | 7.68 | 7.90 |
| | Bottom | 9.23 | 9.10 | 8.95 | 8.99 | 9.04 | 8.26 | 8.09 | 8.09 | 8.08 | | 7.99 | 7.71 | 7.86 | 7.70 | 7.90 |
| W19 (Background | Surface | 9.26 | 9.14 | 9.29 | 8.95 | 9.15 | 8.21 | 8.04 | 7.95 | 7.98 | 8.15 | 8.04 | 7.90 | 7.94 | 7.68 | 7.87 |
| | Mid-water | 9.26 | 9.16 | 9.35 | 8.91 | 9.12 | 8.28 | 8.19 | 7.99 | 8.00 | 8.10 | 8.03 | 7.87 | 7.95 | 7.70 | 7.90 |
| | Bottom | 9.25 | 9.23 | 9.33 | 8.94 | 9.13 | 8.30 | 8.11 | 8.04 | 8.05 | 8.08 | 8.04 | 7.90 | 7.95 | 7.71 | 7.92 |
| W20 | Surface | 9.25 | 9.16 | 9.28 | 9.10 | 9.03 | 8.07 | 8.15 | 8.05 | 7.95 | 8.04 | 7.79 | 7.85 | 7.80 | 7.52 | 7.83 |
| | Mid-water | 9.27 | 9.20 | 9.24 | 9.05 | 9.07 | 8.06 | 8.22 | 8.08 | 7.95 | 8.04 | 7.97 | 7.81 | 7.81 | 7.57 | 7.86 |
| | Bottom | 9.28 | 9.24 | 9.26 | 9.02 | 9.06 | 8.12 | 8.22 | 8.07 | 8.00 | 8.04 | 7.95 | 7.78 | 7.83 | 7.67 | 7.87 |
| W25 | Surface | 9.21 | 9.24 | 9.26 | 9.10 | 9.05 | 8.28 | 8.00 | 7.93 | 7.91 | 8.07 | 7.91 | 7.81 | 7.88 | 7.68 | 7.77 |
| | Mid-water | 9.18 | 9.25 | 9.28 | 9.05 | 8.95 | 8.27 | 8.04 | 8.11 | 7.87 | 8.06 | 7.89 | 7.76 | 7.87 | 7.68 | 7.87 |
| | Bottom | 9.15 | 9.24 | 9.28 | 9.04 | 8.95 | 8.23 | 8.06 | 8.13 | 7.96 | 8.07 | 7.87 | 7.68 | 7.86 | 7.62 | 7.90 |
| W26 | Surface | 9.24 | 9.19 | 9.34 | 9.15 | 9.11 | 8.23 | 8.06 | 7.92 | 7.89 | 7.79 | 7.99 | 7.81 | 7.81 | 7.76 | 7.62 |
| | Mid-water | 9.21 | 9.22 | 9.35 | 9.11 | 9.22 | 8.22 | 8.02 | 8.23 | 7.90 | 7.73 | 7.95 | 7.74 | 7.80 | 7.77 | 7.63 |
| | Bottom | 9.22 | 9.22 | 9.34 | 9.08 | 9.10 | 8.16 | 8.01 | 8.26 | 7.90 | 7.73 | 7.94 | 7.78 | 7.79 | 7.75 | 7.61 |
| W27 (Background | Surface | 9.26 | 9.07 | 9.23 | 9.23 | 9.11 | 8.22 | 8.08 | 8.10 | 7.86 | 7.73 | 7.78 | 7.88 | 7.79 | 7.76 | 7.52 |
| | Mid-water | 9.24 | 9.10 | 9.24 | 9.22 | 9.21 | 8.23 | 8.06 | 8.15 | 7.89 | 7.71 | 7.72 | 7.79 | 7.77 | 7.72 | 7.52 |
| | Bottom | 9.25 | 9.13 | 9.23 | 9.18 | 9.16 | 8.18 | 8.01 | 8.07 | 7.89 | 7.67 | 7.71 | 7.74 | 7.75 | 7.67 | 7.62 |
| W36 | Surface | 9.22 | 9.11 | 9.20 | 9.05 | 9.17 | 8.21 | 8.05 | 8.05 | 7.60 | 7.43 | 8.08 | 7.90 | 7.84 | 7.78 | 7.47 |
| | Mid-water | 9.20 | 9.07 | 9.22 | 8.97 | 9.06 | 8.27 | 8.11 | 8.08 | 7.60 | 7.43 | 8.08 | 7.86 | 7.85 | 7.78 | 7.51 |
| | Bottom | 9.20 | 9.05 | 9.23 | 8.98 | 9.25 | 8.27 | 8.09 | 8.11 | 7.60 | 7.43 | 8.08 | 7.85 | 7.86 | 7.77 | 7.47 |
| W45 | Surface | 9.25 | 9.07 | 9.13 | 9.12 | 9.18 | 8.18 | 8.15 | 8.10 | 7.80 | 7.64 | 8.04 | 7.77 | 7.82 | 7.79 | 7.52 |
| | Mid-water | 9.21 | 9.05 | 9.03 | 9.10 | 9.15 | 8.23 | 8.16 | 8.12 | 7.80 | 7.66 | 8.05 | 7.84 | 7.82 | 7.79 | 7.56 |
| | Bottom | 9.20 | 9.08 | 9.15 | 9.10 | 9.14 | 8.23 | 8.14 | 8.14 | 7.81 | 7.63 | 8.05 | 7.84 | 7.84 | 7.79 | 7.60 |
| W46 | Surface | 9.27 | 9.15 | 9.09 | 9.09 | 9.17 | 8.24 | 8.17 | 8.24 | 7.82 | 7.65 | 8.02 | 7.66 | 7.82 | 7.81 | 7.47 |
| | Mid-water | 9.26 | 9.18 | 9.11 | 9.12 | 9.24 | 8.27 | 8.19 | 8.24 | 7.84 | 7.67 | 8.07 | 7.72 | 7.83 | 7.83 | 7.31 |
| | Bottom | 9.27 | 9.19 | 9.13 | 9.19 | 9.16 | 8.26 | 8.19 | 8.23 | 7.87 | 7.67 | 8.06 | 7.72 | 7.86 | 7.85 | 7.59 |
| W47 | Surface | | 9.11 | | | | | | | | | | | | | |
| | Mid-water | | 9.13 | | | | | | | | | | | | | |
| | Bottom | | 9.19 | | | | | | | | | | | | | |
| W51 | Surface | 9.19 | 9.16 | 9.23 | 9.05 | 8.97 | 7.98 | 8.08 | 8.00 | 8.10 | 8.04 | 7.81 | 7.84 | 7.87 | 7.68 | 7.88 |
| | Mid-water | 9.23 | 9.22 | 9.29 | 9.02 | 8.96 | 7.98 | 8.11 | 8.16 | 8.07 | 8.05 | 7.79 | 7.82 | 7.86 | 7.69 | 7.91 |
| | Bottom | 9.22 | 9.25 | 9.28 | 9.00 | 9.00 | 7.98 | 8.11 | 8.17 | 8.12 | 8.05 | 7.80 | 7.78 | 7.84 | 7.68 | 7.89 |

Boskalis
Dredging & Marine Experts

| | Date | 2020-Jul-12 | 2020-Jul-13 | 2020-Jul-14 | 2020-Jul-15 | 2020-Jul-16 | 2020-Jul-17 | 2020-Jul-18 | 2020-Jul-19 | 2020-Jul-20 | 2020-Jul-21 | 2020-Jul-22 | 2020-Jul-23 | 2020-Jul-24 | 2020-Jul-25 | 2020-Jul-26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH |
| W2 | Surface | 7.46 | 7.91 | 7.79 | 7.42 | 8.26 | 7.66 | | | | 7.79 | 7.57 | 7.45 | | 7.56 | 8.04 |
| | Mid-water | 7.54 | 7.92 | 7.77 | 7.46 | 8.21 | 7.65 | | | | 7.80 | 7.63 | 7.46 | | 7.50 | 8.08 |
| | Bottom | 7.53 | 7.91 | 7.71 | 7.46 | 8.18 | 7.91 | | | | 7.79 | 7.57 | 7.34 | | 7.45 | 7.95 |
| W5 | Surface | 7.46 | 7.86 | 7.93 | 7.57 | 8.02 | 8.08 | | | 7.58 | 7.61 | 7.56 | 7.55 | | 7.60 | 8.08 |
| | Mid-water | 7.50 | 7.88 | 7.99 | 7.53 | 8.00 | 8.14 | | | 7.46 | 7.56 | 7.54 | 7.54 | | 7.59 | 8.10 |
| | Bottom | 7.32 | 7.84 | 7.93 | 7.51 | 8.11 | 8.06 | | | 7.53 | 7.58 | 7.49 | 7.48 | | 7.60 | 8.09 |
| W7 | Surface | 7.62 | 7.98 | 7.87 | 7.61 | 8.23 | 7.90 | | | 7.50 | 7.69 | 7.56 | 7.62 | | 7.64 | 8.11 |
| | Mid-water | 7.69 | 7.97 | 7.94 | 7.64 | 8.09 | 7.93 | | | 7.47 | 7.68 | 7.55 | 7.68 | | 7.66 | 8.13 |
| | Bottom | 7.67 | 7.98 | 7.82 | 7.64 | 8.00 | 8.03 | | | 7.47 | 7.68 | 7.48 | 7.62 | | 7.64 | 8.13 |
| W10 | Surface | 7.75 | 7.84 | 7.91 | 7.61 | 8.21 | 7.94 | | | 7.41 | 7.70 | 7.65 | 7.61 | | 7.61 | 8.19 |
| | Mid-water | 7.76 | 7.82 | 7.75 | 7.65 | 8.15 | 8.05 | | | 7.32 | 7.68 | 7.63 | 7.68 | | 7.66 | 8.16 |
| | Bottom | 7.75 | 7.68 | 7.82 | 7.64 | 8.09 | 8.05 | | | 7.29 | 7.67 | 7.57 | 7.66 | | 7.63 | 8.18 |
| W11 | Surface | 7.74 | 7.93 | 7.89 | 7.51 | 8.29 | 7.92 | | | 7.40 | 7.68 | 7.62 | 7.71 | | 7.62 | 8.14 |
| | Mid-water | 7.76 | 7.92 | 7.97 | 7.68 | 8.04 | 7.99 | | | 7.35 | 7.66 | 7.63 | 7.70 | | 7.62 | 8.17 |
| | Bottom | 7.76 | 7.89 | 7.87 | 7.66 | 7.94 | 7.95 | | | 7.34 | 7.65 | 7.57 | 7.66 | | 7.66 | 8.14 |
| W14 | Surface | 7.48 | 7.99 | 7.96 | 7.58 | 8.25 | 8.03 | | | 6.95 | 7.87 | 7.54 | 7.50 | | 7.64 | 8.15 |
| | Mid-water | 7.46 | 7.98 | 7.92 | 7.55 | 8.24 | 8.09 | | | 6.95 | 7.86 | 7.56 | 7.41 | | 7.59 | 8.09 |
| | Bottom | 7.44 | 7.99 | 7.73 | 7.54 | 8.19 | 8.13 | | | 6.96 | 7.88 | 7.58 | 7.39 | | 7.57 | 8.09 |
| W15 | Surface | 7.56 | 7.96 | 7.90 | 7.57 | 8.15 | 7.92 | | | 7.57 | 7.62 | 7.54 | 7.49 | | 7.60 | 8.07 |
| | Mid-water | 7.62 | 7.96 | 7.92 | 7.58 | 8.09 | 7.87 | | | 7.54 | 7.56 | 7.51 | 7.53 | | 7.61 | 8.10 |
| | Bottom | 7.56 | 7.97 | 7.84 | 7.58 | 8.06 | 7.88 | | | 7.55 | 7.60 | 7.49 | 7.43 | | 7.57 | 8.10 |
| W16 | Surface | 7.79 | 7.94 | 7.78 | 7.61 | 8.22 | 8.04 | | | | 7.76 | 7.46 | 7.67 | | 7.60 | 8.14 |
| | Mid-water | 7.78 | 7.94 | 7.86 | 7.70 | 8.19 | 8.05 | | | | 7.73 | 7.36 | 7.68 | | 7.60 | 8.11 |
| | Bottom | 7.79 | 7.94 | 7.73 | 7.68 | 8.18 | 8.09 | | | | 7.73 | 7.30 | 7.70 | | 7.63 | 8.09 |
| W19 (Background | Surface | 7.82 | 7.93 | 7.86 | 7.66 | 8.24 | 7.88 | | | | 7.86 | 7.42 | 7.70 | | 7.54 | 8.09 |
| | Mid-water | 7.80 | 7.93 | 7.97 | 7.79 | 8.20 | 7.89 | | | | 7.86 | 7.45 | 7.64 | | 7.53 | 8.11 |
| | Bottom | 7.80 | 7.93 | 7.94 | 7.76 | 8.21 | 7.96 | | | | 7.84 | 7.45 | 7.64 | | 7.51 | 8.08 |
| W20 | Surface | 7.82 | 7.80 | 8.01 | 7.74 | 8.23 | 7.98 | | | | 7.77 | 7.50 | 7.70 | | 7.57 | 8.11 |
| | Mid-water | 7.80 | 7.88 | 8.02 | 7.86 | 8.19 | 8.00 | | | | 7.77 | 7.45 | 7.68 | | 7.50 | 8.10 |
| | Bottom | 7.80 | 7.89 | 8.03 | 7.79 | 8.20 | 8.03 | | | | 7.70 | 7.50 | 7.68 | | 7.47 | 8.09 |
| W25 | Surface | 7.82 | 7.72 | 7.88 | 7.78 | 8.24 | 7.99 | | | | 7.78 | 7.37 | 7.69 | | 7.55 | 8.05 |
| | Mid-water | 7.82 | 7.88 | 8.04 | 7.88 | 8.05 | 8.03 | | | | 7.77 | 7.38 | 7.71 | | 7.50 | 7.94 |
| | Bottom | 7.80 | 7.92 | 8.04 | 7.84 | 7.96 | 8.04 | | | | 7.78 | 7.34 | 7.70 | | 7.42 | 7.96 |
| W26 | Surface | 7.83 | 7.81 | 7.93 | 7.95 | 8.18 | 7.96 | | | | 7.77 | 7.48 | 7.64 | | 7.34 | 8.14 |
| | Mid-water | 7.80 | 7.83 | 7.97 | 7.95 | 8.04 | 7.98 | | | | 7.75 | 7.41 | 7.70 | | 7.36 | 8.16 |
| | Bottom | 7.78 | 7.85 | 7.94 | 7.95 | 7.97 | 7.97 | | | | 7.77 | 7.36 | 7.69 | | 7.30 | 8.15 |
| W27 (Background | Surface | 7.83 | 7.85 | 7.93 | 7.96 | 8.06 | 7.95 | | | | 7.79 | 7.35 | 7.68 | | 7.29 | 8.14 |
| | Mid-water | 7.78 | 7.88 | 7.95 | 7.93 | 8.05 | 7.93 | | | | 7.79 | 7.16 | 7.66 | | 7.18 | 8.16 |
| | Bottom | 7.77 | 7.92 | 7.96 | 7.87 | 8.04 | 7.95 | | | | 7.78 | 7.00 | 7.65 | | 6.94 | 8.13 |
| W36 | Surface | 7.90 | 7.56 | 7.81 | 7.97 | 7.90 | 7.61 | | | | 7.33 | 7.50 | 7.65 | | 7.55 | 8.26 |
| | Mid-water | 7.87 | 7.61 | 7.73 | 7.94 | 7.90 | 7.60 | | | | 7.33 | 7.39 | 7.66 | | 7.60 | 8.28 |
| | Bottom | 7.86 | 7.59 | 7.66 | 7.95 | 7.88 | 7.57 | | | | 7.63 | 7.35 | 7.66 | | 7.51 | 8.35 |
| W45 | Surface | 7.89 | 7.71 | 7.81 | 7.96 | 7.96 | 7.77 | | | | 7.80 | 7.40 | 7.70 | | 7.51 | 8.06 |
| | Mid-water | 7.86 | 7.74 | 7.86 | 7.93 | 7.91 | 7.73 | | | | 7.83 | 7.39 | 7.71 | | 7.56 | 8.08 |
| | Bottom | 7.87 | 7.65 | 7.88 | 7.93 | 7.91 | 7.60 | | | | 7.81 | 7.33 | 7.67 | | 7.50 | 8.04 |
| W46 | Surface | 7.81 | 7.76 | 7.84 | 7.92 | 8.01 | 7.84 | | | | 7.79 | 7.55 | 7.70 | | 7.46 | 8.08 |
| | Mid-water | 7.83 | 7.80 | 7.89 | 7.90 | 7.96 | 7.87 | | | | 7.77 | 7.61 | 7.80 | | 7.48 | 8.13 |
| | Bottom | 7.83 | 7.81 | 7.89 | 7.91 | 7.98 | 7.87 | | | | 7.61 | 7.59 | 7.79 | | 7.38 | 8.09 |
| W47 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W51 | Surface | 7.77 | 7.73 | 7.85 | 7.76 | 8.12 | 7.96 | | | | 7.64 | 7.44 | 7.70 | | 7.58 | 8.11 |
| | Mid-water | 7.82 | 7.74 | 7.94 | 7.86 | 8.05 | 7.98 | | | | 7.83 | 7.49 | 7.71 | | 7.56 | 8.12 |
| | Bottom | 7.82 | 7.83 | 8.01 | 7.88 | 7.99 | 8.01 | | | | 7.85 | 7.48 | 7.72 | | 7.52 | 8.10 |

Boskalis
Dredging & Marine Experts

| | Date | 2020-Jul-27 | 2020-Jul-28 | 2020-Jul-29 | 2020-Jul-30 | 2020-Jul-31 | 2020-Aug-01 | 2020-Aug-02 | 2020-Aug-03 | 2020-Aug-04 | 2020-Aug-05 | 2020-Aug-06 | 2020-Aug-07 | 2020-Aug-08 | 2020-Aug-09 | 2020-Aug-10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH |
| W2 | Surface | 8.05 | 7.81 | 8.16 | 7.75 | 7.87 | 7.88 | 7.98 | 7.85 | 8.54 | 8.36 | 8.34 | 7.55 | 8.53 | 8.26 | 8.65 |
| | Mid-water | 8.00 | 7.86 | 8.13 | 7.75 | 7.87 | 7.85 | 7.99 | 7.81 | 8.56 | 8.46 | 8.40 | 7.48 | 8.51 | 8.24 | 8.61 |
| | Bottom | 7.93 | 7.86 | 8.12 | 7.75 | 7.89 | 7.80 | 7.97 | 7.83 | 8.51 | 8.45 | 8.38 | 7.31 | 8.46 | 8.28 | 8.62 |
| W5 | Surface | 8.10 | 7.67 | 8.08 | 7.66 | 7.84 | 7.89 | 8.00 | 7.59 | 8.72 | 8.39 | 8.33 | 7.72 | 8.60 | 7.79 | 7.67 |
| | Mid-water | 8.02 | 7.66 | 8.07 | 7.64 | 7.83 | 7.88 | 7.92 | 7.51 | 8.76 | 8.33 | 8.34 | 7.67 | 8.49 | 7.78 | 7.62 |
| | Bottom | 7.95 | 7.61 | 8.07 | 7.63 | 7.74 | 7.88 | 7.88 | 7.48 | 8.75 | 8.02 | 8.35 | 7.57 | 8.49 | 7.71 | 7.68 |
| W7 | Surface | 8.04 | 7.75 | 8.15 | 7.71 | 7.93 | 7.92 | 8.01 | 7.70 | 8.64 | 8.24 | 8.39 | 8.13 | 8.56 | 8.18 | 8.07 |
| | Mid-water | 8.02 | 7.78 | 8.09 | 7.71 | 7.92 | 7.96 | 8.00 | 7.71 | 8.63 | 8.27 | 8.58 | 8.05 | 8.54 | 8.15 | 7.99 |
| | Bottom | 8.01 | 7.75 | 7.95 | 7.70 | 7.93 | 7.94 | 8.02 | 7.72 | 8.63 | 8.27 | 8.63 | 8.11 | 8.56 | 8.20 | 8.05 |
| W10 | Surface | 7.94 | 7.81 | 8.08 | 7.71 | 7.93 | 8.28 | 8.03 | 7.68 | 8.60 | 8.28 | 8.31 | 8.03 | 8.60 | 8.25 | 8.63 |
| | Mid-water | 7.92 | 7.83 | 8.11 | 7.72 | 7.94 | 8.26 | 7.98 | 7.69 | 8.62 | 8.14 | 8.44 | 7.96 | 8.53 | 8.21 | 8.54 |
| | Bottom | 7.91 | 7.81 | 8.04 | 7.71 | 7.95 | 8.16 | 8.00 | 7.70 | 8.64 | 8.23 | 8.51 | 7.94 | 8.52 | 8.24 | 8.20 |
| W11 | Surface | 8.02 | 7.81 | 8.17 | 7.71 | 7.86 | 8.29 | 8.07 | 7.75 | 8.73 | 8.32 | 8.42 | 8.16 | 8.53 | 8.25 | 8.86 |
| | Mid-water | 8.02 | 7.83 | 8.16 | 7.72 | 7.87 | 8.29 | 8.04 | 7.72 | 8.69 | 8.34 | 8.47 | 8.03 | 8.45 | 8.21 | 8.79 |
| | Bottom | 7.99 | 7.83 | 8.16 | 7.71 | 7.88 | 8.26 | 8.03 | 7.64 | 8.68 | 8.38 | 8.56 | 8.13 | 8.43 | 8.23 | 8.63 |
| W14 | Surface | 8.14 | 7.81 | 8.16 | 7.77 | 7.89 | 7.50 | 8.01 | 7.64 | 8.79 | 8.51 | 8.36 | 7.62 | 8.59 | 8.30 | 8.75 |
| | Mid-water | 8.08 | 7.78 | 8.01 | 7.75 | 7.87 | 7.51 | 7.98 | 7.55 | 8.71 | 8.37 | 8.49 | 7.59 | 8.56 | 8.32 | 8.71 |
| | Bottom | 8.08 | 7.76 | 8.06 | 7.74 | 7.89 | 7.45 | 7.96 | 7.77 | 8.68 | 8.33 | 8.50 | 7.60 | 8.55 | 8.30 | 8.70 |
| W15 | Surface | 7.92 | 7.71 | 8.12 | 7.65 | 7.83 | 8.04 | 7.90 | 7.71 | 8.69 | 8.23 | 8.37 | 7.96 | 8.60 | 7.78 | 7.91 |
| | Mid-water | 7.90 | 7.72 | 8.14 | 7.63 | 7.83 | 8.04 | 7.80 | 7.65 | 8.70 | 8.21 | 8.36 | 7.88 | 8.49 | 7.69 | 7.81 |
| | Bottom | 8.01 | 7.69 | 8.14 | 7.60 | 7.90 | 7.98 | 7.79 | 7.65 | 8.70 | 8.23 | 8.36 | 7.82 | 8.49 | 7.72 | 7.70 |
| W16 | Surface | 8.00 | 7.83 | 8.02 | 7.75 | 7.89 | 8.24 | 8.16 | 7.85 | 8.62 | 8.44 | 8.37 | 8.16 | 8.58 | 8.32 | 8.67 |
| | Mid-water | 8.02 | 7.83 | 7.98 | 7.76 | 7.87 | 8.18 | 8.11 | 7.82 | 8.57 | 8.41 | 8.39 | 8.11 | 8.53 | 8.32 | 8.58 |
| | Bottom | 8.03 | 7.88 | 7.98 | 7.76 | 7.85 | 8.18 | 8.12 | 7.82 | 8.56 | 8.44 | 8.39 | 8.13 | 8.55 | 8.38 | 8.61 |
| W19 (Background | Surface | 8.16 | 7.86 | 8.08 | 7.79 | | 8.27 | 8.22 | 8.10 | 8.52 | 8.50 | 8.46 | 8.42 | 8.55 | 8.42 | 8.63 |
| | Mid-water | 8.16 | 7.88 | 8.06 | 7.80 | | 8.19 | 8.19 | 8.12 | 8.57 | 8.51 | 8.48 | 8.33 | 8.52 | 8.43 | 8.58 |
| | Bottom | 8.18 | 7.88 | 7.98 | 7.83 | | 8.10 | 8.17 | 8.16 | 8.54 | 8.50 | 8.50 | 8.32 | 8.50 | 8.46 | 8.64 |
| W20 | Surface | 8.15 | 7.95 | 7.95 | 7.75 | | 8.26 | 8.04 | 7.74 | 8.36 | 8.41 | 8.28 | 8.28 | 8.47 | 8.57 | 8.31 |
| | Mid-water | 8.12 | 7.96 | 7.92 | 7.70 | | 8.24 | 8.01 | 7.83 | 8.28 | 8.29 | 8.27 | 8.24 | 8.39 | 8.69 | 8.30 |
| | Bottom | 7.99 | 7.94 | 7.94 | 7.61 | | 8.29 | 8.00 | 7.89 | 8.30 | 8.16 | 8.26 | 8.29 | 8.37 | 8.73 | 8.34 |
| W25 | Surface | 8.09 | 7.83 | 7.88 | 7.78 | | 8.16 | 8.07 | 7.88 | 8.43 | 8.48 | 8.30 | 8.40 | 8.47 | 8.75 | 8.45 |
| | Mid-water | 8.11 | 7.91 | 7.89 | 7.78 | | 8.14 | 8.04 | 7.85 | 8.40 | 8.44 | 8.35 | 8.31 | 8.37 | 8.76 | 8.41 |
| | Bottom | 8.09 | 7.91 | 7.86 | 7.80 | | 8.16 | 8.05 | 7.86 | 8.37 | 8.40 | 8.42 | 8.37 | 8.42 | 8.78 | 8.43 |
| W26 | Surface | 7.66 | 7.98 | 7.93 | 7.75 | | 8.19 | 8.12 | 7.80 | 8.32 | 8.47 | 8.32 | 8.26 | 8.51 | 8.64 | 8.33 |
| | Mid-water | 7.74 | 7.99 | 7.98 | 7.74 | | 8.16 | 7.98 | 7.75 | 8.18 | 8.41 | 8.30 | 8.23 | 8.50 | 8.62 | 8.35 |
| | Bottom | 8.04 | 8.00 | 8.00 | 7.77 | | 8.20 | 7.92 | 7.75 | 8.18 | 8.36 | 8.34 | 8.25 | 8.53 | 8.64 | 8.39 |
| W27 (Background | Surface | 8.10 | 7.97 | 8.02 | 7.70 | | 8.19 | 8.12 | 7.82 | 8.29 | 8.32 | 8.39 | 8.20 | 8.49 | 8.70 | 8.56 |
| | Mid-water | 8.08 | 7.95 | 8.05 | 7.71 | | 8.16 | 8.02 | 7.72 | 8.24 | 8.15 | 8.36 | 8.08 | 8.46 | 8.71 | 8.61 |
| | Bottom | 8.11 | 7.94 | 8.05 | 7.70 | | 8.14 | 7.99 | 7.71 | 8.21 | 8.10 | 8.41 | 8.13 | 8.44 | 8.73 | 8.58 |
| W36 | Surface | 8.05 | 7.67 | 7.81 | 7.51 | 7.54 | 8.30 | 7.68 | 7.21 | 8.63 | 7.94 | 7.83 | 8.13 | 8.64 | 7.71 | 7.82 |
| | Mid-water | 7.99 | 7.70 | 7.80 | 7.54 | 7.42 | 8.28 | 7.79 | 7.06 | 8.59 | 8.19 | 7.75 | 8.05 | 8.51 | 7.72 | 7.83 |
| | Bottom | 7.98 | 7.63 | 7.77 | 7.42 | 7.53 | 8.26 | 7.77 | 7.16 | 8.53 | 8.46 | 7.94 | 8.07 | 8.53 | 7.88 | 7.94 |
| W45 | Surface | 8.10 | 7.99 | 7.94 | 7.75 | | 8.10 | 7.98 | 8.04 | 8.45 | 8.39 | 8.00 | 7.98 | 8.50 | 8.33 | 8.54 |
| | Mid-water | 8.08 | 8.01 | 7.97 | 7.75 | | 8.06 | 7.92 | 7.85 | 8.40 | 8.21 | 7.86 | 7.94 | 8.49 | 8.33 | 8.57 |
| | Bottom | 8.05 | 8.02 | 7.98 | 7.78 | | 8.09 | 7.89 | 7.83 | 8.36 | 8.14 | 7.72 | 7.84 | 8.43 | 8.27 | 8.58 |
| W46 | Surface | 8.13 | 8.01 | 8.04 | 7.79 | | 8.27 | 7.95 | 7.96 | 8.47 | 8.37 | 7.95 | 7.94 | 8.53 | 8.62 | 8.60 |
| | Mid-water | 7.98 | 7.93 | 8.09 | 7.78 | | 8.27 | 7.87 | 7.91 | 8.42 | 8.30 | 7.89 | 7.92 | 8.51 | 8.69 | 8.49 |
| | Bottom | 7.85 | 8.03 | 8.04 | 7.80 | | 8.32 | 7.91 | 7.91 | 8.32 | 8.23 | 7.82 | 7.91 | 8.51 | 8.72 | 8.59 |
| W47 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W51 | Surface | 8.14 | 7.91 | 7.89 | 7.77 | | 8.27 | 8.22 | 8.02 | 8.38 | 8.47 | 8.30 | 8.17 | 8.48 | 8.63 | 8.42 |
| | Mid-water | 8.14 | 7.94 | 7.90 | 7.74 | | 8.24 | 8.18 | 7.98 | 8.32 | 8.31 | 8.36 | 8.17 | 8.51 | 8.69 | 8.41 |
| | Bottom | 8.13 | 7.95 | 7.93 | 7.75 | | 8.27 | 8.16 | 7.98 | 8.27 | 8.20 | 8.44 | 8.19 | 8.47 | 8.64 | 8.41 |

Boskalis
Dredging & Marine Experts

| | Date | 2020-Aug-11 | 2020-Aug-12 | 2020-Aug-13 | 2020-Aug-14 | 2020-Aug-15 | 2020-Aug-16 | 2020-Aug-17 | 2020-Aug-18 | 2020-Aug-19 | 2020-Aug-20 | 2020-Aug-21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH | pH |
| W2 | Surface | 8.21 | 8.25 | 8.25 | 8.37 | 8.40 | 8.02 | 8.42 | 8.00 | 8.55 | 8.52 | 8.36 |
| | Mid-water | 8.17 | 8.21 | 8.22 | 8.29 | 8.33 | 8.02 | 8.30 | 7.85 | 8.39 | 8.40 | 8.23 |
| | Bottom | 8.19 | 8.29 | 8.08 | 8.37 | 8.32 | 8.01 | 8.22 | 7.87 | 8.39 | 8.43 | 8.15 |
| W5 | Surface | 7.77 | 7.77 | 7.84 | 7.80 | 8.37 | 8.09 | 8.53 | 8.05 | 8.34 | 8.36 | 8.43 |
| | Mid-water | 7.69 | 7.76 | 7.76 | 7.72 | 8.28 | 8.07 | 8.28 | 7.92 | 8.31 | 8.28 | 8.35 |
| | Bottom | 7.67 | 7.76 | 7.68 | 7.72 | 8.24 | 8.04 | 8.33 | 7.94 | 8.29 | 8.28 | 8.36 |
| W7 | Surface | 8.02 | 8.12 | 8.06 | 8.26 | 8.23 | 8.11 | 8.37 | 8.12 | 8.44 | 8.69 | 8.50 |
| | Mid-water | 7.96 | 8.08 | 8.03 | 8.22 | 8.19 | 8.04 | 8.29 | 8.03 | 8.36 | 8.54 | 8.43 |
| | Bottom | 7.97 | 8.08 | 8.00 | 8.14 | 8.24 | 8.03 | 8.19 | 8.05 | 8.38 | 8.61 | 8.42 |
| W10 | Surface | 8.04 | 8.15 | 8.21 | 8.38 | 8.27 | 8.16 | 8.32 | 8.17 | 8.39 | 8.60 | 8.40 |
| | Mid-water | 8.05 | 8.15 | 8.21 | 8.32 | 8.20 | 8.10 | 8.19 | 8.06 | 8.26 | 8.45 | 8.31 |
| | Bottom | 8.08 | 8.17 | 8.19 | 8.45 | 8.22 | 8.15 | 8.21 | 8.12 | 8.38 | 8.47 | 8.33 |
| W11 | Surface | 8.07 | 8.23 | 8.18 | 8.40 | 8.29 | 8.17 | 8.42 | 8.16 | 8.46 | 8.46 | 8.41 |
| | Mid-water | 8.06 | 8.22 | 8.12 | 8.31 | 8.20 | 8.09 | 8.38 | 8.09 | 8.42 | 8.32 | 8.32 |
| | Bottom | 8.11 | 8.18 | 7.95 | 8.33 | 8.22 | 8.05 | 8.40 | 8.05 | 8.49 | 8.34 | 8.30 |
| W14 | Surface | 8.22 | 8.27 | 8.11 | 8.55 | 8.37 | 8.20 | 8.35 | 8.00 | 8.55 | 8.64 | 8.39 |
| | Mid-water | 8.19 | 8.26 | 8.22 | 8.35 | 8.29 | 8.18 | 8.28 | 7.84 | 8.51 | 8.44 | 8.30 |
| | Bottom | 8.15 | 8.28 | 8.18 | 8.41 | 8.33 | 8.18 | 8.31 | 7.79 | 8.46 | 8.41 | 8.28 |
| W15 | Surface | 7.92 | 7.95 | 7.87 | 7.92 | 8.25 | 8.13 | 8.47 | 8.07 | 8.48 | 8.26 | 8.44 |
| | Mid-water | 7.81 | 7.88 | 7.79 | 7.85 | 8.17 | 8.07 | 8.29 | 7.95 | 8.44 | 8.08 | 8.39 |
| | Bottom | 7.86 | 7.83 | 7.81 | 7.86 | 8.18 | 8.06 | 8.27 | 7.97 | 8.42 | 7.91 | 8.39 |
| W16 | Surface | 8.20 | 8.34 | 8.15 | 8.56 | 8.39 | 7.97 | 8.44 | 7.92 | 8.50 | 8.43 | 8.30 |
| | Mid-water | 8.09 | 8.28 | 8.00 | 8.43 | 8.33 | 7.89 | 8.34 | 7.84 | 8.34 | 8.23 | 8.23 |
| | Bottom | 8.14 | 8.26 | 8.18 | 8.43 | 8.33 | 7.87 | 8.38 | 7.83 | 8.51 | 8.22 | 8.20 |
| W19 (Background | Surface | 8.13 | 8.52 | 8.29 | 8.58 | 8.43 | 8.36 | 8.51 | 8.16 | 8.44 | 8.90 | 8.42 |
| | Mid-water | 8.11 | 8.49 | 8.23 | 8.53 | 8.32 | 8.17 | 8.34 | 8.07 | 8.38 | 8.86 | 8.42 |
| | Bottom | 8.15 | 8.57 | 8.27 | 8.51 | 8.31 | 7.98 | 8.44 | 8.10 | 8.32 | 9.01 | 8.54 |
| W20 | Surface | 8.34 | 8.25 | 8.30 | 8.45 | 8.44 | 8.35 | 8.49 | 8.11 | 8.23 | 8.69 | 8.41 |
| | Mid-water | 8.29 | 8.31 | 8.25 | 8.42 | 8.33 | 8.32 | 8.38 | 8.01 | 8.38 | 8.50 | 8.30 |
| | Bottom | 8.26 | 8.36 | 8.26 | 8.51 | 8.28 | 8.33 | 8.41 | 8.03 | 8.43 | 8.48 | 8.30 |
| W25 | Surface | 8.11 | 8.39 | 8.36 | 8.58 | 8.34 | 8.36 | 8.45 | 8.20 | 8.54 | 8.75 | 8.42 |
| | Mid-water | 8.10 | 8.44 | 8.32 | 8.54 | 8.32 | 8.32 | 8.36 | 8.09 | 8.47 | 8.49 | 8.32 |
| | Bottom | 8.15 | 8.43 | 8.34 | 8.58 | 8.30 | 8.32 | 8.41 | 8.10 | 8.50 | 8.52 | 8.32 |
| W26 | Surface | 8.37 | 8.37 | 8.48 | 8.54 | 8.37 | 8.32 | 8.57 | 8.19 | 8.45 | 8.68 | 8.40 |
| | Mid-water | 8.32 | 8.31 | 8.32 | 8.56 | 8.33 | 8.23 | 8.35 | 8.12 | 8.38 | 8.54 | 8.26 |
| | Bottom | 8.31 | 8.27 | 8.46 | 8.56 | 8.40 | 8.29 | 8.34 | 8.15 | 8.34 | 8.49 | 8.23 |
| W27 (Background | Surface | 8.29 | 8.29 | 8.48 | 8.60 | 8.35 | 8.28 | 8.54 | 8.22 | 8.44 | 8.88 | 8.38 |
| | Mid-water | 8.26 | 8.33 | 8.44 | 8.48 | 8.29 | 8.24 | 8.40 | 8.13 | 8.39 | 8.73 | 8.29 |
| | Bottom | 8.14 | 8.43 | 8.42 | 8.52 | 8.29 | 8.27 | 8.46 | 8.14 | 8.34 | 8.71 | 8.32 |
| W36 | Surface | 7.61 | 7.59 | 7.70 | 7.52 | 8.19 | 8.11 | 8.23 | 8.16 | 8.10 | 8.57 | 8.45 |
| | Mid-water | 7.55 | 7.38 | 7.57 | 7.30 | 8.05 | 7.96 | 8.00 | 8.05 | 7.92 | 8.46 | 8.32 |
| | Bottom | 7.51 | 7.45 | 7.71 | 7.33 | 8.04 | 7.87 | 7.92 | 8.05 | 7.77 | 8.37 | 8.34 |
| W45 | Surface | 8.34 | 8.39 | 8.58 | 8.57 | 8.34 | 8.15 | 8.30 | 8.17 | 8.42 | 8.63 | 8.45 |
| | Mid-water | 8.23 | 8.36 | 8.52 | 8.47 | 8.25 | 8.09 | 8.24 | 8.06 | 8.35 | 8.57 | 8.38 |
| | Bottom | 8.33 | 8.39 | 8.48 | 8.55 | 8.25 | 8.08 | 8.23 | 8.04 | 8.34 | 8.54 | 8.39 |
| W46 | Surface | 8.24 | 8.44 | 8.45 | 8.64 | 8.36 | 8.13 | 8.28 | 8.04 | 8.42 | 8.63 | 8.46 |
| | Mid-water | 8.00 | 8.44 | 8.41 | 8.61 | 8.28 | 8.07 | 8.15 | 7.97 | 8.29 | 8.51 | 8.35 |
| | Bottom | 8.11 | 8.45 | 8.36 | 8.58 | 8.27 | 8.12 | 8.31 | 7.95 | 8.45 | 8.36 | 8.36 |
| W47 | Surface | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | |
| W51 | Surface | 8.01 | 8.46 | 8.37 | 8.51 | 8.31 | 8.37 | 8.52 | 8.13 | 8.51 | 8.73 | 8.41 |
| | Mid-water | 7.99 | 8.47 | 8.30 | 8.33 | 8.27 | 8.30 | 8.40 | 8.08 | 8.48 | 8.54 | 8.37 |
| | Bottom | 8.02 | 8.50 | 8.31 | 8.36 | 8.28 | 8.30 | 8.45 | 8.10 | 8.48 | 8.58 | 8.34 |

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## *Table 12: 28th May until 21st August 2020 Daily Average Conductivity (µS/cm)) Data*

| | Date | 2020-May-28 | 2020-May-29 | 2020-May-30 | 2020-May-31 | 2020-Jun-01 | 2020-Jun-02 | 2020-Jun-03 | 2020-Jun-04 | 2020-Jun-05 | 2020-Jun-06 | 2020-Jun-07 | 2020-Jun-08 | 2020-Jun-09 | 2020-Jun-10 | 2020-Jun-11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity |
| W2 | Surface | 52405.71 | 52303.00 | 52287.00 | 52453.24 | 7.18 | 52335.00 | 52317.00 | 52228.54 | 52262.00 | 52329.11 | 52400.00 | 52318.89 | 52450.00 | 52411.11 | 52458.00 |
| | Mid-water | 52407.26 | 52251.00 | 52254.00 | 52439.49 | 7.19 | 52372.00 | 52289.00 | 52235.42 | 52281.00 | 52282.87 | 52380.00 | 52365.15 | 52400.00 | 52375.31 | 52470.31 |
| | Bottom | 52401.30 | 52232.00 | 52208.00 | 52440.92 | 7.08 | 52359.00 | 52305.00 | 52230.78 | 52267.00 | 52308.76 | 52435.15 | 52372.60 | 52390.00 | 52335.15 | 52418.90 |
| W5 | Surface | 51951.79 | 52421.00 | 52524.00 | 52377.83 | 7.43 | 52461.00 | 52370.00 | 52387.34 | 52266.00 | 52352.08 | 52459.51 | 52373.26 | 52508.64 | 52509.45 | 52434.87 |
| | Mid-water | 52185.06 | 52345.00 | 52492.00 | 52366.80 | 7.49 | 52442.00 | 52395.00 | 52387.92 | 52314.00 | 52341.45 | 52471.96 | 52352.16 | 52487.58 | 52473.73 | 52526.32 |
| | Bottom | 52229.86 | 52376.00 | 52434.00 | 52363.00 | 7.47 | 52386.00 | 52423.00 | 52331.56 | 52296.00 | 52364.25 | 52450.57 | 52389.07 | 52492.59 | 52444.46 | 52500.16 |
| W7 | Surface | 52315.11 | 52367.00 | 52390.00 | 52284.75 | 7.48 | 52234.00 | 52269.00 | 52279.44 | 52144.00 | 52242.20 | 52376.44 | 52257.86 | 52413.41 | 52425.00 | 52511.76 |
| | Mid-water | 52323.78 | 52381.00 | 52387.00 | 52282.21 | 7.44 | 52221.00 | 52342.00 | 52255.86 | 52123.00 | 52210.98 | 52350.93 | 52381.97 | 52427.96 | 52390.56 | 52455.66 |
| | Bottom | 52318.99 | 52366.00 | 52362.00 | 52268.94 | 7.36 | 52267.00 | 52607.00 | 52181.62 | 52067.00 | 52160.00 | 52300.38 | 52451.02 | 52372.42 | 52374.74 | 52437.14 |
| W10 | Surface | 52432.57 | 52369.00 | 52383.00 | 52330.00 | 7.47 | 52276.00 | 52223.00 | 52256.34 | 52154.00 | 52198.00 | 52399.33 | 52281.92 | 52430.91 | 52430.83 | 52509.76 |
| | Mid-water | 52385.76 | 52337.00 | 52381.00 | 52276.27 | 7.50 | 52241.00 | 52189.00 | 52249.17 | 52139.00 | 52174.90 | 52372.63 | 52280.13 | 52400.95 | 52372.81 | 52470.31 |
| | Bottom | 52388.49 | 52280.00 | 52335.00 | 52284.14 | 7.41 | 52260.00 | 52175.00 | 52213.33 | 52047.00 | 52133.24 | 52332.31 | 52410.19 | 52379.84 | 52316.92 | 52443.33 |
| W11 | Surface | 52401.45 | 52350.00 | 52326.00 | 52333.71 | 7.36 | 52289.00 | 52264.00 | 52283.56 | 52140.00 | 51708.24 | 52408.21 | 52235.92 | 52416.11 | 52370.49 | 52471.16 |
| | Mid-water | 52376.99 | 52339.00 | 52333.00 | 52299.50 | 7.34 | 52284.00 | 52231.00 | 52280.79 | 52104.00 | 52195.82 | 52345.66 | 52232.58 | 52378.97 | 52330.00 | 52472.17 |
| | Bottom | 52405.04 | 52321.00 | 52355.00 | 52356.67 | 7.21 | 52259.00 | 52154.00 | 52209.11 | 52055.00 | 52197.69 | 52300.71 | 52169.65 | 52364.00 | 52304.82 | 52434.56 |
| W14 | Surface | 52353.44 | 52210.00 | 52236.00 | 52364.00 | 7.09 | 52258.00 | 52431.00 | 52363.09 | 52320.00 | 52324.57 | 52498.64 | 52322.50 | 52375.00 | 52469.09 | 52529.22 |
| | Mid-water | 52340.00 | 52240.00 | 52218.00 | 52330.82 | 7.12 | 52250.00 | 52396.00 | 52346.49 | 52264.00 | 52296.35 | 52465.87 | 52351.97 | 52330.00 | 52465.75 | 52508.36 |
| | Bottom | 52349.38 | 52255.00 | 52226.00 | 52288.16 | 7.17 | 52297.00 | 52399.00 | 52305.65 | 52272.00 | 52272.17 | 52461.56 | 52343.33 | 52341.43 | 52449.31 | 52492.26 |
| W15 | Surface | 52198.79 | 52297.00 | 52519.00 | 52420.00 | 7.31 | 52418.00 | 52308.00 | 52405.00 | 52280.00 | 52333.29 | 52473.26 | 52312.38 | 52486.58 | 52490.00 | 52555.26 |
| | Mid-water | 52252.52 | 52305.00 | 52525.00 | 52431.27 | 7.28 | 52409.00 | 52281.00 | 52405.43 | 52265.00 | 52316.15 | 52440.46 | 52285.56 | 52493.62 | 52465.32 | 52557.82 |
| | Bottom | 52209.89 | 52291.00 | 52486.00 | 52390.67 | 7.22 | 52383.00 | 52345.00 | 52353.03 | 52225.00 | 52284.30 | 52382.32 | 52281.75 | 52478.05 | 52437.04 | 52506.89 |
| W16 | Surface | 52371.32 | 52345.00 | 52310.00 | 52330.60 | 7.29 | 52337.00 | 52227.00 | 52295.40 | 52294.00 | 52240.88 | 52437.38 | 52292.89 | 52423.78 | 52361.36 | 52505.24 |
| | Mid-water | 52352.69 | 52321.00 | 52306.00 | 52300.80 | 7.33 | 52326.00 | 52177.00 | 52287.33 | 52265.00 | 52227.02 | 52402.71 | 52285.61 | 52400.56 | 52323.27 | 52435.93 |
| | Bottom | 52370.00 | 52327.00 | 52287.00 | 52293.04 | 7.30 | 52288.00 | 52163.00 | 52236.72 | 52230.00 | 52280.96 | 52383.72 | 52275.48 | 52365.29 | 52314.18 | 52387.64 |
| W19 (Background | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W20 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W25 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W26 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W27 (Background | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W36 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W45 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W46 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W47 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W51 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |

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| | Date | 2020-Jun-12 | 2020-Jun-13 | 2020-Jun-14 | 2020-Jun-15 | 2020-Jun-16 | 2020-Jun-17 | 2020-Jun-18 | 2020-Jun-19 | 2020-Jun-20 | 2020-Jun-21 | 2020-Jun-22 | 2020-Jun-23 | 2020-Jun-24 | 2020-Jun-25 | 2020-Jun-26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity |
| W2 | Surface | 52484.86 | 52523.06 | 52501.16 | 52589.14 | 52739.00 | 52929.00 | 52391.00 | 52651.85 | 52536.45 | 52829.53 | 53241.76 | 52816.77 | 52764.91 | 52779.81 | 52853.85 |
| | Mid-water | 52436.91 | 52547.54 | 52572.94 | 52579.55 | 52701.00 | 52889.00 | 52787.00 | 52634.22 | 52506.78 | 52841.74 | 53200.72 | 52806.23 | 52769.81 | 52739.75 | 52835.08 |
| | Bottom | 52392.38 | 52492.07 | 52544.02 | 52594.14 | 52641.00 | 52836.00 | 52784.00 | 52668.38 | 52532.31 | 52861.12 | 53157.66 | 52779.82 | 52783.97 | 52721.75 | 52831.85 |
| W5 | Surface | 52546.49 | 52574.79 | 52595.48 | 52790.87 | 52658.00 | 46154.00 | 52847.00 | 52607.94 | 52458.00 | 52820.44 | 44393.11 | 52763.53 | 52743.87 | 52791.86 | 52901.83 |
| | Mid-water | 52504.20 | 52547.42 | 52530.78 | 52834.16 | 52673.00 | 52243.00 | 52778.00 | 52613.05 | 52421.76 | 52878.66 | 53195.56 | 52730.33 | 52706.09 | 52761.46 | 52869.02 |
| | Bottom | 52444.91 | 52495.82 | 52493.05 | 52820.99 | 52678.00 | 52908.00 | 52795.00 | 52576.39 | 52486.14 | 52888.96 | 53235.77 | 52695.50 | 52699.23 | 52699.85 | 52828.07 |
| W7 | Surface | 52451.18 | 52496.48 | 52646.76 | 52693.49 | 52736.00 | 53039.00 | 52880.00 | 52481.64 | 52464.14 | 52851.54 | 53321.86 | 52782.29 | 52742.25 | 52837.00 | 52815.90 |
| | Mid-water | 52446.23 | 52498.97 | 52626.51 | 52675.70 | 52728.00 | 53023.00 | 52934.00 | 52496.19 | 52461.45 | 52855.97 | 53300.17 | 52732.55 | 52719.05 | 52812.26 | 52773.91 |
| | Bottom | 52435.61 | 52463.02 | 52602.95 | 52567.37 | 52695.00 | 53037.00 | 52931.00 | 52499.84 | 52490.39 | 52828.29 | 53246.83 | 52731.25 | 52736.67 | 52786.12 | 52750.16 |
| W10 | Surface | 52453.61 | 52536.52 | 52697.89 | 52637.33 | 52666.00 | 53073.00 | 53042.00 | 52553.45 | 52508.09 | 52854.08 | 53288.06 | 52786.09 | 52754.05 | 52839.61 | 52872.27 |
| | Mid-water | 52374.60 | 52496.88 | 52697.97 | 52672.67 | 52763.00 | 53045.00 | 52771.00 | 52548.40 | 52501.75 | 52791.67 | 53288.36 | 52722.45 | 52742.05 | 52818.59 | 52813.90 |
| | Bottom | 52395.60 | 52456.60 | 52629.79 | 52614.55 | 52682.00 | 53068.00 | 53108.00 | 52486.00 | 52505.64 | 52803.75 | 53219.31 | 52729.41 | 52693.72 | 52796.21 | 52808.47 |
| W11 | Surface | 52408.92 | 52541.71 | 52658.13 | 52649.30 | 52694.00 | 53103.00 | 53041.00 | 52556.10 | 52537.11 | 52891.52 | 53262.05 | 52780.37 | 52921.88 | 52963.10 | 52859.37 |
| | Mid-water | 52360.38 | 52532.44 | 52632.79 | 52671.17 | 52727.00 | 53108.00 | 53042.00 | 52514.00 | 52495.93 | 52847.54 | 53252.28 | 52721.61 | 52893.51 | 52941.52 | 52831.25 |
| | Bottom | 52306.54 | 52482.46 | 52636.67 | 52630.13 | 52698.00 | 53059.00 | 53011.00 | 52477.46 | 52529.13 | 52829.18 | 53203.68 | 52726.00 | 52859.00 | 52927.73 | 52820.79 |
| W14 | Surface | 52415.81 | 52534.39 | 52471.47 | 52629.75 | 52680.00 | 52772.00 | 52847.00 | 52609.73 | 52527.12 | 52861.06 | 53083.75 | 52714.59 | 52859.06 | 52748.64 | 52954.81 |
| | Mid-water | 52432.89 | 52547.50 | 52444.26 | 52647.73 | 52641.00 | 52785.00 | 52831.00 | 52651.45 | 52523.64 | 52852.05 | 53097.44 | 52709.29 | 52879.00 | 52712.35 | 52885.45 |
| | Bottom | 52381.35 | 52557.44 | 52443.83 | 52622.34 | 52562.00 | 52812.00 | 52796.00 | 52682.05 | 52515.65 | 52812.93 | 53121.62 | 52720.98 | 52861.10 | 52709.72 | 52872.44 |
| W15 | Surface | 52482.67 | 52603.42 | 52597.58 | 52752.16 | 52633.00 | 52904.00 | 52936.00 | 52545.56 | 52505.24 | 52810.20 | 53263.21 | 52751.92 | 52695.52 | 52859.77 | 52870.77 |
| | Mid-water | 52453.75 | 52563.21 | 52608.96 | 52806.87 | 52634.00 | 52846.00 | 52875.00 | 52517.90 | 52482.14 | 52838.08 | 53280.73 | 52700.14 | 52676.25 | 52823.24 | 52831.67 |
| | Bottom | 52459.23 | 52520.67 | 52550.23 | 52832.83 | 52607.00 | 52787.00 | 52902.00 | 52531.40 | 52463.80 | 52837.16 | 53256.53 | 52660.00 | 52654.93 | 52837.89 | 52816.95 |
| W16 | Surface | 52045.26 | 52593.91 | 52574.38 | 52676.04 | 52796.00 | 53026.00 | 52841.00 | 52683.48 | 52594.68 | 52978.80 | 53383.44 | 52889.56 | 52886.97 | 53018.78 | 52855.69 |
| | Mid-water | 52413.45 | 52512.76 | 52575.82 | 52653.00 | 52698.00 | 53006.00 | 52839.00 | 52668.56 | 52622.35 | 52991.23 | 53363.33 | 52838.36 | 52889.29 | 52980.26 | 52814.57 |
| | Bottom | 52392.41 | 52473.43 | 52562.41 | 52610.92 | 52714.00 | 52974.00 | 52871.00 | 52648.28 | 52644.69 | 52916.75 | 53342.30 | 52847.35 | 52865.00 | 52958.13 | 52780.78 |
| W19 (Background | Surface | 52638.40 | | 52815.71 | 52707.80 | 52757.00 | 53078.00 | 52925.00 | 52733.39 | 52576.77 | 53098.08 | 53410.83 | 52844.55 | 52920.82 | 52920.87 | 52792.13 |
| | Mid-water | 52618.62 | | 52773.82 | 52653.66 | 52771.00 | 53018.00 | 53069.00 | 52801.76 | 52614.62 | 53104.55 | 53349.37 | 52797.41 | 52882.41 | 52915.47 | 52774.22 |
| | Bottom | 52555.57 | | 52757.37 | 52678.06 | 52873.00 | 52983.00 | 53078.00 | 52793.97 | 52646.70 | 53089.77 | 53317.58 | 52796.74 | 52889.39 | 52901.87 | 52746.52 |
| W20 | Surface | 52543.68 | | 52611.74 | 52664.82 | 52683.00 | 52778.00 | 52893.00 | 52685.60 | 52592.37 | 52948.09 | 53412.73 | 52781.82 | 52816.35 | 52963.54 | |
| | Mid-water | 52491.85 | | 52566.10 | 52646.93 | 52644.00 | 52745.00 | 52991.00 | 52650.63 | 52536.07 | 52927.53 | 53325.00 | 52740.91 | 52788.55 | 52915.34 | |
| | Bottom | 52485.00 | | 52666.00 | 52668.07 | 52611.00 | 52702.00 | 52973.00 | 52645.97 | 52539.06 | 52920.00 | 53309.34 | 52705.19 | 52752.71 | 52859.86 | |
| W25 | Surface | 52665.81 | | 52677.59 | 52631.02 | 52677.00 | 52741.00 | 52920.00 | 52597.78 | 52578.86 | 52990.34 | 53397.50 | 52831.11 | 52886.10 | 52952.27 | |
| | Mid-water | 52610.37 | | 52711.18 | 52630.53 | 52671.00 | 52721.00 | 52904.00 | 52610.38 | 52569.40 | 52921.90 | 53396.79 | 52783.50 | 52848.87 | 52892.53 | |
| | Bottom | 52575.20 | | 52750.75 | 52623.10 | 52699.00 | 52765.00 | 52877.00 | 52699.72 | 52717.23 | 52883.51 | 53360.00 | 52769.53 | 52810.47 | 52891.21 | |
| W26 | Surface | | | | | | | 52855.00 | 52566.46 | 52601.37 | 52992.54 | 53273.04 | 52666.19 | 52755.92 | 52851.54 | |
| | Mid-water | | | | | | | 52684.00 | 52538.47 | 52543.87 | 52953.02 | 53209.00 | 52629.82 | 52741.01 | 52811.49 | |
| | Bottom | | | | | | | 52654.00 | 52511.32 | 52539.70 | 52825.19 | 53185.00 | 52649.74 | 52700.00 | 52790.79 | |
| W27 (Background | Surface | 52599.17 | | 52554.62 | 52620.79 | 52550.00 | 52698.00 | 52752.00 | 52534.49 | 52559.05 | 52176.86 | 53257.00 | 52569.09 | 52746.43 | 52854.75 | |
| | Mid-water | 52524.52 | | 52446.97 | 52632.55 | 52520.00 | 52665.00 | 52694.00 | 52499.06 | 52558.57 | 52868.56 | 53228.67 | 52556.42 | 52732.18 | 52812.35 | |
| | Bottom | 52582.54 | | 52440.20 | 52638.22 | 52470.00 | 52648.00 | 52687.00 | 52533.63 | 52560.43 | 52848.29 | 53195.15 | 52528.00 | 52682.11 | 52792.33 | |
| W36 | Surface | 52537.17 | | 52688.13 | 52900.00 | 52625.00 | | 52853.00 | 52592.98 | 52540.00 | 52909.81 | 53366.53 | 52723.94 | 52857.27 | 52983.68 | 52825.74 |
| | Mid-water | 52501.47 | | 52627.14 | 52891.08 | 52620.00 | | 52915.00 | 52537.87 | 52570.00 | 52875.54 | 53344.84 | 52690.78 | 52781.74 | 52926.05 | 52813.13 |
| | Bottom | 52517.07 | | 52593.56 | 52836.03 | 52543.00 | | 52946.00 | 52515.06 | 52540.00 | 52830.14 | 53311.41 | 52628.18 | 52695.00 | 52856.96 | 52778.68 |
| W45 | Surface | 52600.91 | | 52560.22 | 52825.92 | 52670.00 | | 52846.00 | 52633.33 | 52508.81 | 52908.47 | 53332.17 | 52769.00 | 52813.94 | 52933.95 | 52816.94 |
| | Mid-water | 52551.03 | | 52539.54 | 52827.23 | 52646.00 | | 52844.00 | 52609.32 | 52488.65 | 52877.61 | 53328.86 | 52716.14 | 52814.02 | 52873.94 | 52780.19 |
| | Bottom | 52551.25 | | 52531.35 | 52766.30 | 52638.00 | | 52853.00 | 52597.09 | 52526.14 | 52817.27 | 53298.85 | 52690.60 | 52775.58 | 52838.82 | 52802.11 |
| W46 | Surface | 52551.84 | | 52602.29 | 52654.73 | 52631.00 | | 52877.00 | 52533.45 | 52586.89 | 52949.07 | 53369.17 | 52764.79 | 52790.19 | 52869.02 | |
| | Mid-water | 52533.51 | | 52545.45 | 52678.64 | 52636.00 | | 52977.00 | 52572.87 | 52575.66 | 52928.72 | 53323.13 | 52723.82 | 52755.75 | 52860.68 | |
| | Bottom | 52483.42 | | 52532.97 | 52682.12 | 52598.00 | | 52982.00 | 52622.41 | 52602.90 | 52860.28 | 53296.67 | 52754.71 | 52690.70 | 52822.14 | |
| W47 | Surface | 52538.48 | | 52595.25 | 52628.90 | 52587.00 | | 52835.00 | 52535.40 | 52596.32 | 52950.48 | 53315.94 | | | | |
| | Mid-water | 52495.97 | | 52551.76 | 52605.23 | 52579.00 | | 52833.00 | 52500.09 | 52546.39 | 52877.44 | 53287.39 | | | | |
| | Bottom | 52457.60 | | 52563.58 | 52670.00 | 52607.00 | | 52812.00 | 52456.23 | 52536.62 | 52853.68 | 53269.43 | | | | |
| W51 | Surface | 52560.91 | | 52581.00 | 52657.35 | 52627.00 | 52638.00 | 52848.00 | 52537.53 | 52642.63 | 52982.08 | 53272.76 | 52802.58 | 52857.11 | 52976.00 | |
| | Mid-water | 52549.09 | | 52546.63 | 52609.22 | 52588.00 | 52702.00 | 52859.00 | 52490.39 | 52738.48 | 52946.85 | 53270.00 | 52732.41 | 52841.00 | 52919.78 | |
| | Bottom | 52515.00 | | 52607.33 | 52579.29 | 52530.00 | 52681.00 | 52934.00 | 52647.65 | 52739.87 | 52982.50 | 53323.04 | 52715.31 | 52823.28 | 52906.86 | |

Boskalis
Dredging & Marine Experts

| | Date | 2020-Jun-27 | 2020-Jun-28 | 2020-Jun-29 | 2020-Jun-30 | 2020-Jul-01 | 2020-Jul-02 | 2020-Jul-03 | 2020-Jul-04 | 2020-Jul-05 | 2020-Jul-06 | 2020-Jul-07 | 2020-Jul-08 | 2020-Jul-09 | 2020-Jul-10 | 2020-Jul-11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity |
| W2 | Surface | 52933.10 | 53230.88 | 52696.30 | 52778.30 | 52794.75 | 53495.71 | 53482.50 | 53524.76 | 53265.00 | | 53676.00 | 53568.00 | 53490.00 | 53453.00 | 53536.54 |
| | Mid-water | 52865.74 | 53198.61 | 52676.11 | 52701.27 | 52790.42 | 53430.84 | 53458.18 | 53489.84 | 53467.47 | | 53656.00 | 53527.00 | 53450.00 | 53431.00 | 53539.19 |
| | Bottom | 52843.09 | 53170.00 | 52662.19 | 52674.18 | 52795.74 | 53400.36 | 53476.61 | 53419.55 | 53443.26 | | 53660.00 | 53538.00 | 53477.00 | 53448.00 | 53523.08 |
| W5 | Surface | 52867.45 | 53280.22 | 52740.73 | 52837.38 | 52823.89 | 52218.41 | 53482.90 | 53365.40 | 53458.41 | | 53603.00 | 53484.00 | 53457.00 | 53419.00 | 53441.71 |
| | Mid-water | 52847.75 | 53234.16 | 52755.76 | 52845.61 | 52795.86 | 53354.90 | 53445.09 | 53376.27 | 53420.64 | | 53559.00 | 53443.00 | 53389.00 | 53406.00 | 53407.35 |
| | Bottom | 52803.97 | 53190.43 | 52696.62 | 52840.36 | 52777.80 | 53322.65 | 53420.26 | 53351.36 | 53422.65 | | 53536.00 | 53430.00 | 53446.00 | 53397.00 | 53413.62 |
| W7 | Surface | 52873.21 | 53219.74 | 52806.72 | 52877.32 | 52882.50 | 53285.45 | 53470.25 | 53349.38 | 53400.86 | 53668.00 | 53526.00 | 53411.00 | 53433.00 | 53476.00 | 53434.31 |
| | Mid-water | 52860.00 | 53187.61 | 52760.46 | 52911.48 | 52871.21 | 53268.69 | 53447.04 | 53340.00 | 53384.46 | 53590.00 | 53496.00 | 53336.00 | 53397.00 | 53426.00 | 53434.85 |
| | Bottom | 52820.18 | 53171.59 | 52762.31 | 52831.60 | 52827.42 | 53264.75 | 53424.91 | 53294.77 | 53359.61 | 53618.00 | 53467.00 | 53322.00 | 53407.00 | 53434.00 | 53402.62 |
| W10 | Surface | 52877.03 | 53261.89 | 52833.75 | 52803.68 | 52935.10 | 53332.28 | 53479.77 | 53265.90 | 53457.69 | 53630.00 | 53535.00 | 53444.00 | 53403.00 | 53372.00 | 53454.69 |
| | Mid-water | 52829.04 | 53197.53 | 52774.50 | 52760.33 | 52897.34 | 53307.80 | 53450.33 | 53274.39 | 53402.59 | 53613.00 | 53534.00 | 53404.00 | 53397.00 | 53345.00 | 53414.04 |
| | Bottom | 52804.92 | 53173.28 | 52743.97 | 52766.31 | 52860.55 | 53310.91 | 53429.85 | 53323.18 | 53364.93 | 53566.00 | 53534.00 | 53407.00 | 53378.00 | 53365.00 | 53411.91 |
| W11 | Surface | 52868.87 | 51155.92 | 52779.74 | 52879.51 | 52947.78 | 53385.36 | 53469.60 | 53543.00 | 53394.63 | 53599.00 | 53566.00 | 53498.00 | 53521.00 | 53514.00 | 53437.39 |
| | Mid-water | 52825.53 | 52866.86 | 52726.25 | 52829.25 | 52922.57 | 53362.05 | 53435.71 | 53519.35 | 53397.17 | 53603.00 | 53514.00 | 53533.00 | 53543.00 | 53487.00 | 53375.35 |
| | Bottom | 52831.51 | 53181.64 | 52729.57 | 52760.70 | 52869.32 | 53365.24 | 53434.21 | 53520.30 | 53392.26 | 53539.00 | 53529.00 | 53533.00 | 53525.00 | 53480.00 | 53375.23 |
| W14 | Surface | 52953.00 | 53297.07 | 52727.60 | 52726.83 | 52801.46 | 53488.68 | 53480.93 | 53511.82 | 53418.07 | 53406.00 | 53679.00 | 53630.00 | 53479.00 | 53398.00 | 53461.94 |
| | Mid-water | 52926.44 | 53253.79 | 52674.06 | 52720.36 | 52767.36 | 53470.79 | 53545.23 | 53510.00 | 53565.24 | 53411.00 | 53555.00 | 53542.00 | 53409.00 | 53364.00 | 53512.54 |
| | Bottom | 52882.62 | 53240.73 | 52699.17 | 52711.59 | 52787.19 | 53371.50 | 53531.11 | 53491.81 | 53484.46 | 53412.00 | 53545.00 | 53469.00 | 53412.00 | 53354.00 | 53520.67 |
| W15 | Surface | 52761.70 | 53206.35 | 52735.67 | 52881.92 | 52833.49 | 53337.08 | 53449.57 | 53442.89 | 53447.00 | 53617.00 | 53540.00 | 53498.00 | 53439.00 | 53391.00 | 53461.75 |
| | Mid-water | 52779.41 | 53180.55 | 52706.08 | 52873.97 | 52790.34 | 53332.10 | 53460.70 | 53435.71 | 53416.61 | 53548.00 | 53541.00 | 53460.00 | 53417.00 | 53414.00 | 53476.00 |
| | Bottom | 52761.30 | 53163.82 | 52681.78 | 52824.00 | 52770.29 | 53335.77 | 53420.40 | 53397.21 | 53377.19 | 53526.00 | 53492.00 | 53447.00 | 53425.00 | 53366.00 | 53417.86 |
| W16 | Surface | 52897.45 | 53205.61 | 52812.29 | 52833.24 | 53034.47 | 53387.78 | 53521.00 | 53553.83 | 53528.84 | | 53590.00 | 53705.00 | 53625.00 | 53525.00 | 53553.39 |
| | Mid-water | 52864.14 | 53164.22 | 52785.07 | 52759.84 | 52982.67 | 53370.68 | 53493.33 | 53510.52 | 53507.33 | | 53539.00 | 53614.00 | 53577.00 | 53458.00 | 53490.69 |
| | Bottom | 52838.64 | 53151.43 | 52772.86 | 52765.20 | 52899.37 | 53369.55 | 53446.67 | 53502.60 | 53490.71 | | 53511.00 | 53589.00 | 53529.00 | 53526.00 | 53453.15 |
| W19 (Background | Surface | 52849.46 | 53246.25 | 52813.85 | 52905.14 | 53004.71 | 53503.57 | 53633.25 | 53643.64 | 53579.17 | 53685.00 | 53635.00 | 53737.00 | 53646.00 | 53556.00 | 53498.75 |
| | Mid-water | 52826.25 | 53214.75 | 52801.75 | 52941.76 | 52963.50 | 53491.69 | 53564.66 | 53589.71 | 53531.48 | 53582.00 | 53597.00 | 53662.00 | 53543.00 | 53552.00 | 53492.36 |
| | Bottom | 52816.71 | 53176.97 | 52786.50 | 52931.75 | 52949.57 | 53461.27 | 53559.55 | 53572.45 | 53516.56 | 53532.00 | 53586.00 | 53587.00 | 53600.00 | 53527.00 | 53480.91 |
| W20 | Surface | 52917.44 | 53203.75 | 52816.11 | 52855.20 | 52920.62 | 53450.79 | 53583.79 | 53640.40 | 53416.05 | 53519.00 | 53703.00 | 53719.00 | 51803.00 | 53521.00 | 53499.22 |
| | Mid-water | 52897.75 | 53184.53 | 52721.04 | 52786.10 | 52853.93 | 53382.31 | 53530.95 | 53578.95 | 53399.85 | 53493.00 | 53655.00 | 53598.00 | 53486.00 | 53490.00 | 53444.51 |
| | Bottom | 52858.46 | 53133.24 | 52695.93 | 52751.27 | 52816.84 | 53329.82 | 53513.51 | 53514.06 | 53379.83 | 53486.00 | 53638.00 | 53582.00 | 53469.00 | 53487.00 | 53406.40 |
| W25 | Surface | 52844.25 | 53158.75 | 52810.34 | 52869.00 | 52874.49 | 53513.52 | 53556.67 | 53586.80 | 53507.05 | 53533.00 | 53636.00 | 53681.00 | 53678.00 | 53584.00 | 53520.98 |
| | Mid-water | 52773.37 | 53134.16 | 52722.55 | 52777.91 | 52808.62 | 53431.22 | 53565.71 | 53568.31 | 53492.83 | 53474.00 | 53551.00 | 53576.00 | 53606.00 | 53561.00 | 53468.47 |
| | Bottom | 52789.10 | 53126.92 | 52710.00 | 52757.08 | 52771.76 | 53352.14 | 53503.28 | 53552.57 | 53492.86 | 53491.00 | 53565.00 | 53504.00 | 53569.00 | 53510.00 | 53443.73 |
| W26 | Surface | 53015.59 | 53196.59 | 52820.34 | 52914.22 | 52811.95 | 53470.00 | 53547.73 | 53546.56 | 53321.39 | 53443.00 | 53609.00 | 53716.00 | 53472.00 | 53459.00 | 53453.44 |
| | Mid-water | 52921.33 | 53170.85 | 52799.37 | 52816.33 | 52798.60 | 53374.70 | 53455.07 | 53470.57 | 53360.15 | 53406.00 | 53567.00 | 53626.00 | 53453.00 | 53435.00 | 53401.46 |
| | Bottom | 52886.59 | 53194.21 | 52774.93 | 52797.67 | 52776.95 | 53370.81 | 53436.67 | 53453.33 | 53335.93 | 53409.00 | 53554.00 | 53647.00 | 53435.00 | 53421.00 | 53366.25 |
| W27 (Background | Surface | 53022.04 | 53180.77 | 52827.65 | 52913.26 | 52877.14 | 53394.63 | 53443.40 | 53552.81 | 53255.56 | 53369.00 | 53603.00 | 53784.00 | 53450.00 | 53463.00 | 53361.31 |
| | Mid-water | 52969.85 | 53155.24 | 52823.71 | 52855.64 | 52837.54 | 53391.09 | 53412.34 | 53524.83 | 53263.65 | 53343.00 | 53545.00 | 53655.00 | 53479.00 | 53447.00 | 53330.00 |
| | Bottom | 52939.61 | 53126.55 | 52779.32 | 52822.90 | 52815.86 | 53333.64 | 53451.94 | 53494.64 | 53253.23 | 53356.00 | 53518.00 | 53647.00 | 53451.00 | 53433.00 | 53337.18 |
| W36 | Surface | 53048.37 | 53223.02 | 52838.23 | 52893.94 | 52832.05 | 53361.67 | 53520.58 | 53464.26 | 53418.64 | 53493.00 | 53759.00 | 53448.00 | 53419.00 | 53451.00 | 53412.50 |
| | Mid-water | 52983.18 | 53176.33 | 52803.77 | 52826.67 | 52800.18 | 53348.48 | 53498.98 | 53514.86 | 53403.06 | 53427.00 | 53698.00 | 53576.00 | 53458.00 | 53448.00 | 53401.77 |
| | Bottom | 52972.40 | 53164.44 | 52773.40 | 52782.33 | 52789.71 | 53341.61 | 53528.04 | 53483.51 | 53371.95 | 53453.00 | 53662.00 | 53572.00 | 53476.00 | 53453.00 | 53388.85 |
| W45 | Surface | 53056.41 | 53222.05 | 52799.76 | 52849.55 | 52859.19 | 53410.83 | 53549.15 | 53547.45 | 53351.03 | 53390.00 | 53719.00 | 53626.00 | 53438.00 | 53467.00 | 53386.43 |
| | Mid-water | 53005.33 | 53190.48 | 52777.97 | 52854.92 | 52856.97 | 53377.33 | 53512.54 | 53508.17 | 53347.90 | 53365.00 | 53672.00 | 53613.00 | 53437.00 | 53497.00 | 53340.00 |
| | Bottom | 52966.49 | 53154.38 | 52756.76 | 52825.15 | 52837.29 | 53351.25 | 53501.62 | 53480.00 | 53320.88 | 53337.00 | 53623.00 | 53586.00 | 53434.00 | 53456.00 | 53342.00 |
| W46 | Surface | 53009.27 | 53211.05 | 52784.55 | 52886.00 | 52839.47 | 53537.94 | 53555.12 | 53561.43 | 53357.50 | 53375.00 | 53707.00 | 53692.00 | 53546.00 | 53507.00 | 53295.68 |
| | Mid-water | 52976.17 | 53157.31 | 52761.77 | 52850.48 | 52816.67 | 53471.90 | 53506.67 | 53530.17 | 53334.84 | 53363.00 | 53708.00 | 53623.00 | 53487.00 | 53488.00 | 53337.93 |
| | Bottom | 52968.08 | 53157.21 | 52720.30 | 52828.49 | 52802.46 | 53368.43 | 53456.67 | 53488.25 | 53330.64 | 53370.00 | 53661.00 | 53600.00 | 53473.00 | 53450.00 | 53306.35 |
| W47 | Surface | | 53198.54 | | | | | | | | | | | | | |
| | Mid-water | | 53200.71 | | | | | | | | | | | | | |
| | Bottom | | 53144.19 | | | | | | | | | | | | | |
| W51 | Surface | 52872.12 | 53154.10 | 52780.95 | 52814.73 | 52914.47 | 53455.32 | 53566.98 | 53614.00 | 53500.18 | 53536.00 | 53699.00 | 53631.00 | 53568.00 | 53621.00 | 53610.26 |
| | Mid-water | 52838.18 | 53146.78 | 52738.27 | 52762.22 | 52829.21 | 53390.47 | 53541.09 | 53539.07 | 53443.28 | 53510.00 | 53625.00 | 53615.00 | 53557.00 | 53545.00 | 53570.00 |
| | Bottom | 52802.37 | 53104.12 | 52710.41 | 52765.61 | 52741.47 | 53365.27 | 53512.98 | 53537.42 | 53409.11 | 53483.00 | 53618.00 | 53545.00 | 53566.00 | 53511.00 | 53556.78 |

Boskalis
Dredging & Marine Experts

| | Date | 2020-Jul-12 | 2020-Jul-13 | 2020-Jul-14 | 2020-Jul-15 | 2020-Jul-16 | 2020-Jul-17 | 2020-Jul-18 | 2020-Jul-19 | 2020-Jul-20 | 2020-Jul-21 | 2020-Jul-22 | 2020-Jul-23 | 2020-Jul-24 | 2020-Jul-25 | 2020-Jul-26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity |
| W2 | Surface | 53421.00 | 53402.00 | 53588.00 | 53443.71 | 53368.00 | 53347.10 | | | | 53169.03 | 53325.95 | 53330.85 | | 53381.79 | 53458.05 |
| | Mid-water | 53403.00 | 53370.00 | 53544.00 | 53410.33 | 53345.00 | 53358.62 | | | | 53142.00 | 53259.43 | 53317.82 | | 53347.96 | 53451.85 |
| | Bottom | 53367.00 | 53330.00 | 53527.00 | 53375.93 | 53383.00 | 53388.75 | | | | 53140.91 | 53259.77 | 53288.10 | | 53344.71 | 53410.57 |
| W5 | Surface | 53382.00 | 53435.00 | 53625.00 | 53257.33 | 53316.00 | 52911.18 | | | 53295.90 | 53242.78 | 53295.70 | 53317.14 | | 53379.53 | 53474.07 |
| | Mid-water | 53376.00 | 53421.00 | 53579.00 | 53290.60 | 53298.00 | 53254.38 | | | 53286.23 | 53205.92 | 53266.35 | 53282.00 | | 53335.45 | 53447.37 |
| | Bottom | 53356.00 | 53411.00 | 53516.00 | 53340.71 | 53266.00 | 53252.02 | | | 53258.11 | 53233.94 | 53237.64 | 53256.83 | | 53357.57 | 53420.30 |
| W7 | Surface | 53443.00 | 53413.00 | 53545.00 | 53154.42 | 53304.00 | 53392.62 | | | 53283.64 | 53222.97 | 53414.19 | 53326.12 | | 53436.96 | 53586.80 |
| | Mid-water | 53382.00 | 53447.00 | 53511.00 | 53115.86 | 53338.00 | 53388.04 | | | 53275.71 | 53191.52 | 53375.88 | 53284.70 | | 53360.48 | 53543.88 |
| | Bottom | 53346.00 | 53420.00 | 53491.00 | 53123.43 | 53299.00 | 53390.42 | | | 53237.14 | 53161.50 | 53374.53 | 53287.11 | | 53335.14 | 53517.64 |
| W10 | Surface | 53393.00 | 53442.00 | 53524.00 | 53218.87 | 53425.00 | 53398.41 | | | 53278.89 | 53351.47 | 53430.50 | 53375.65 | | 53425.65 | 53609.66 |
| | Mid-water | 53370.00 | 53476.00 | 53473.00 | 53200.51 | 53392.00 | 53390.61 | | | 53267.36 | 53328.17 | 53402.37 | 53332.20 | | 53397.81 | 53555.13 |
| | Bottom | 53358.00 | 53482.00 | 53476.00 | 53176.48 | 53354.00 | 53374.30 | | | 53224.47 | 53298.50 | 53378.03 | 53312.97 | | 53374.73 | 53553.84 |
| W11 | Surface | 53368.00 | 53466.00 | 53533.00 | 53285.92 | 53437.00 | 53274.78 | | | 53285.91 | 53321.33 | 53433.38 | 53363.23 | | 53422.31 | 53566.15 |
| | Mid-water | 53343.00 | 53482.00 | 53493.00 | 53268.92 | 53413.00 | 53384.64 | | | 53277.87 | 53308.26 | 53400.31 | 53328.59 | | 53383.98 | 53538.09 |
| | Bottom | 53347.00 | 53456.00 | 53494.00 | 53336.32 | 53400.00 | 53426.30 | | | 53239.33 | 53286.52 | 53389.86 | 53298.74 | | 53393.51 | 53517.87 |
| W14 | Surface | 53456.00 | 53363.00 | 53571.00 | 53496.22 | 53459.00 | 53314.92 | | | 53278.42 | 53316.05 | 53314.09 | 53364.65 | | 53280.85 | 53530.79 |
| | Mid-water | 53446.00 | 53353.00 | 53510.00 | 53425.19 | 53415.00 | 53469.74 | | | 53239.70 | 53272.41 | 53289.60 | 53342.70 | | 53276.36 | 53399.47 |
| | Bottom | 53467.00 | 53418.00 | 53469.00 | 53455.66 | 53403.00 | 53473.41 | | | 53245.10 | 53286.48 | 53291.10 | 53346.71 | | 53328.89 | 53336.38 |
| W15 | Surface | 53391.00 | 53396.00 | 53565.00 | 53197.29 | 53352.00 | 53159.29 | | | 53321.11 | 53212.50 | 53389.23 | 53304.85 | | 53390.39 | 53557.02 |
| | Mid-water | 53360.00 | 53376.00 | 53549.00 | 53203.84 | 53389.00 | 53405.92 | | | 53288.12 | 53167.02 | 53352.09 | 53253.12 | | 53348.51 | 53507.84 |
| | Bottom | 53355.00 | 53352.00 | 53534.00 | 53287.54 | 53411.00 | 53383.24 | | | 53329.38 | 53138.42 | 53339.30 | 53239.05 | | 53346.71 | 53475.70 |
| W16 | Surface | 53457.00 | 53365.00 | 53602.00 | 53511.54 | 53406.00 | 53460.00 | | | | 53120.79 | 53308.24 | 53411.61 | | 53413.27 | 53545.00 |
| | Mid-water | 53393.00 | 53357.00 | 53479.00 | 53452.21 | 53366.00 | 53503.75 | | | | 53132.06 | 53268.21 | 53396.07 | | 53364.83 | 53451.76 |
| | Bottom | 53407.00 | 53330.00 | 53514.00 | 53448.91 | 53404.00 | 53467.93 | | | | 53105.83 | 53256.71 | 53352.53 | | 53328.59 | 53457.30 |
| W19 (Background | Surface | 53515.00 | 53379.00 | 53565.00 | 53514.58 | 53521.00 | 53536.73 | | | | 53168.00 | 53364.84 | 53468.40 | | 53415.11 | 53548.28 |
| | Mid-water | 53510.00 | 53430.00 | 53525.00 | 53452.91 | 53469.00 | 53540.41 | | | | 53116.62 | 53330.24 | 53408.96 | | 53358.57 | 53524.35 |
| | Bottom | 53519.00 | 53418.00 | 53494.00 | 53431.97 | 53499.00 | 53532.60 | | | | 53105.00 | 53296.96 | 53397.18 | | 53354.58 | 53454.25 |
| W20 | Surface | 53515.00 | 53294.00 | 53499.00 | 53309.22 | 53341.00 | 53334.73 | | | | 53150.29 | 53397.17 | 53463.04 | | 53335.00 | 53480.85 |
| | Mid-water | 53510.00 | 53384.00 | 53465.00 | 53303.81 | 53301.00 | 53341.40 | | | | 53178.50 | 53382.74 | 53389.35 | | 53283.38 | 53429.74 |
| | Bottom | 53519.00 | 53349.00 | 53422.00 | 53388.16 | 53247.00 | 53321.56 | | | | 53141.89 | 53351.63 | 53386.37 | | 53245.92 | 53411.88 |
| W25 | Surface | 53558.00 | 53329.00 | 53559.00 | 53502.65 | 53466.00 | 53231.25 | | | | 53188.14 | 53353.87 | 53444.40 | | 53386.10 | 53491.20 |
| | Mid-water | 53534.00 | 53359.00 | 53495.00 | 53440.96 | 53428.00 | 53445.78 | | | | 53139.07 | 53319.14 | 53371.35 | | 53353.56 | 53476.53 |
| | Bottom | 53488.00 | 53405.00 | 53488.00 | 53419.29 | 53393.00 | 53482.56 | | | | 53130.69 | 53293.98 | 53384.24 | | 53328.72 | 53483.77 |
| W26 | Surface | 53462.00 | 53265.00 | 53478.00 | 53446.90 | 53324.00 | 53296.67 | | | | 53224.78 | 53399.80 | 53436.18 | | 53347.84 | 53379.60 |
| | Mid-water | 53393.00 | 53221.00 | 53435.00 | 53417.38 | 53330.00 | 53275.41 | | | | 53214.79 | 53365.94 | 53364.93 | | 53264.03 | 53371.40 |
| | Bottom | 53405.00 | 53197.00 | 53407.00 | 53372.96 | 53324.00 | 53280.47 | | | | 53177.50 | 53374.60 | 53356.49 | | 53232.97 | 53350.47 |
| W27 (Background | Surface | 53397.00 | 53289.00 | 53431.00 | 53330.00 | 53367.00 | 53255.54 | | | | 53227.62 | 53427.69 | 53433.95 | | 53309.30 | 53397.06 |
| | Mid-water | 53436.00 | 53253.00 | 53390.00 | 53359.90 | 53341.00 | 53247.93 | | | | 53197.40 | 53379.70 | 53377.22 | | 53278.95 | 53364.42 |
| | Bottom | 53435.00 | 53234.00 | 53380.00 | 53329.65 | 53330.00 | 53263.82 | | | | 53197.56 | 53373.28 | 53368.67 | | 53261.05 | 53327.21 |
| W36 | Surface | 53595.00 | 53362.00 | 53485.00 | 53375.51 | 53261.00 | 53157.44 | | | | 53307.44 | 53419.14 | 53368.24 | | 53371.09 | 53461.16 |
| | Mid-water | 53525.00 | 53306.00 | 53516.00 | 53342.55 | 53244.00 | 53276.36 | | | | 53322.31 | 53377.65 | 53334.07 | | 53359.00 | 53443.58 |
| | Bottom | 53490.00 | 53344.00 | 53470.00 | 53373.85 | 53240.00 | 53304.56 | | | | 53287.79 | 53359.05 | 53324.51 | | 53362.22 | 53427.79 |
| W45 | Surface | 53527.00 | 53199.00 | 53416.00 | 53333.65 | 53244.00 | 53001.45 | | | | 53209.76 | 53352.35 | 53432.39 | | 53376.86 | 53394.17 |
| | Mid-water | 53483.00 | 53242.00 | 53374.00 | 53315.70 | 53214.00 | 53224.11 | | | | 53167.16 | 53328.76 | 53394.13 | | 53311.74 | 53326.72 |
| | Bottom | 53452.00 | 53292.00 | 53368.00 | 53291.35 | 53211.00 | 53263.42 | | | | 53136.00 | 53315.00 | 53363.03 | | 53292.80 | 53309.23 |
| W46 | Surface | 53562.00 | 52942.00 | 53429.00 | 53320.00 | 53269.00 | 53142.86 | | | | 53197.92 | 53396.80 | 53408.64 | | 53332.98 | 53375.86 |
| | Mid-water | 53511.00 | 53286.00 | 53395.00 | 53328.08 | 53265.00 | 53215.53 | | | | 53166.60 | 53310.58 | 53386.55 | | 53305.22 | 53349.86 |
| | Bottom | 53510.00 | 53293.00 | 53365.00 | 53328.53 | 53266.00 | 53202.75 | | | | 53215.67 | 53314.46 | 53396.59 | | 53289.87 | 53316.21 |
| W47 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W51 | Surface | 53593.00 | 53355.00 | 53603.00 | 53538.64 | 53501.00 | 53375.65 | | | | 53264.14 | 53356.91 | 53409.32 | | 53363.23 | 53493.85 |
| | Mid-water | 53563.00 | 53383.00 | 53539.00 | 53453.29 | 53435.00 | 53384.06 | | | | 53222.95 | 53307.75 | 53348.30 | | 53351.56 | 53432.86 |
| | Bottom | 53540.00 | 53397.00 | 53546.00 | 53445.77 | 53406.00 | 53399.53 | | | | 53235.61 | 53284.86 | 53335.75 | | 53329.10 | 53395.61 |

Boskalis
Dredging & Marine Experts

| | Date | 2020-Jul-27 | 2020-Jul-28 | 2020-Jul-29 | 2020-Jul-30 | 2020-Jul-31 | 2020-Aug-01 | 2020-Aug-02 | 2020-Aug-03 | 2020-Aug-04 | 2020-Aug-05 | 2020-Aug-06 | 2020-Aug-07 | 2020-Aug-08 | 2020-Aug-09 | 2020-Aug-10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity |
| W2 | Surface | 53585.54 | 53533.57 | 53601.83 | 53486.07 | 53536.00 | 53449.06 | 53451.60 | 53557.50 | 53634.62 | 53638.13 | 53606.58 | 53635.21 | 53687.53 | 53802.12 | 53725.50 |
| | Mid-water | 53573.13 | 53540.42 | 53558.17 | 53487.44 | 53531.87 | 53470.63 | 53484.61 | 53526.21 | 53687.61 | 53599.86 | 53562.08 | 53643.66 | 53654.56 | 53792.47 | 53723.95 |
| | Bottom | 53533.38 | 53521.46 | 53562.71 | 53448.48 | 53525.60 | 53463.85 | 53521.14 | 53451.48 | 53641.81 | 53556.74 | 53553.95 | 53609.28 | 53631.80 | 53776.77 | 53730.86 |
| W5 | Surface | 53552.73 | 53521.11 | 53591.09 | 53390.98 | 53499.77 | 53593.61 | 53433.51 | 53454.19 | 53638.00 | 53566.80 | 53585.18 | 53596.22 | 53726.10 | 53735.00 | 53792.54 |
| | Mid-water | 53523.13 | 53509.80 | 53523.22 | 53380.71 | 53486.76 | 53632.95 | 53464.31 | 53449.74 | 53615.38 | 53524.52 | 53570.07 | 53615.16 | 53671.59 | 53722.58 | 53769.90 |
| | Bottom | 53432.63 | 53485.77 | 53528.37 | 53383.77 | 53528.81 | 53645.32 | 53428.38 | 53405.16 | 53580.76 | 53523.00 | 53543.21 | 53566.39 | 53668.06 | 53697.46 | 53789.32 |
| W7 | Surface | 53652.96 | 53447.14 | 53572.32 | 53413.09 | 53621.48 | 53688.96 | 53412.88 | 53385.68 | 53582.34 | 53629.14 | 53635.26 | 53650.59 | 53704.14 | 53738.41 | 53707.06 |
| | Mid-water | 53634.17 | 53405.12 | 53545.71 | 53393.68 | 53607.91 | 53655.97 | 53434.71 | 53354.74 | 53536.85 | 53617.43 | 53660.22 | 53639.21 | 53679.31 | 53710.98 | 53662.79 |
| | Bottom | 53598.13 | 53398.48 | 53519.83 | 53379.63 | 53672.05 | 53560.31 | 53412.93 | 53309.03 | 53512.00 | 53560.15 | 53583.85 | 53587.22 | 53656.60 | 53679.23 | 53636.91 |
| W10 | Surface | 53672.16 | 53424.00 | 53543.20 | 53464.57 | 53632.79 | 53689.47 | 53477.36 | 53379.18 | 53654.40 | 53613.52 | 53671.11 | 53689.36 | 53732.14 | 53758.54 | 53721.15 |
| | Mid-water | 53679.47 | 53391.53 | 53519.52 | 53412.24 | 53612.86 | 53729.76 | 53468.81 | 53401.56 | 53576.21 | 53591.17 | 53693.26 | 53711.48 | 53681.19 | 53742.57 | 53692.08 |
| | Bottom | 53617.43 | 53371.15 | 53480.00 | 53404.72 | 53626.74 | 53733.50 | 53440.16 | 53397.38 | 53548.48 | 53575.61 | 53647.78 | 53665.15 | 53669.49 | 53715.30 | 53678.14 |
| W11 | Surface | 53673.62 | 53468.82 | 53558.70 | 53503.70 | 53655.48 | 53711.89 | 53562.86 | 53541.22 | 53656.32 | 53620.20 | 53687.50 | 53717.17 | 53717.56 | 53764.12 | 53712.83 |
| | Mid-water | 53653.72 | 53436.34 | 53540.24 | 53470.50 | 53639.39 | 53819.35 | 53477.80 | 53501.80 | 53636.22 | 53581.63 | 53663.33 | 53703.17 | 53631.32 | 53717.87 | 53730.99 |
| | Bottom | 53590.14 | 53396.38 | 53537.89 | 53462.24 | 53631.92 | 53786.25 | 53443.68 | 53482.65 | 53606.22 | 53579.74 | 53675.25 | 53708.44 | 53654.64 | 53711.69 | 53682.50 |
| W14 | Surface | 53659.02 | 53476.61 | 53580.00 | 53469.62 | 53482.08 | 53350.71 | 53371.86 | 53511.09 | 53632.45 | 53617.19 | 53555.15 | 53611.15 | 53667.34 | 53830.95 | 53672.04 |
| | Mid-water | 53632.12 | 53481.09 | 53595.00 | 53451.00 | 53491.90 | 53480.00 | 53372.39 | 53486.83 | 53587.89 | 53534.53 | 53536.44 | 53588.18 | 53651.29 | 53770.00 | 53676.67 |
| | Bottom | 53494.83 | 53468.14 | 53582.00 | 53438.97 | 53569.70 | 53534.44 | 53406.03 | 53498.57 | 53560.00 | 53542.60 | 53559.45 | 53578.59 | 53616.89 | 53716.96 | 53696.88 |
| W15 | Surface | 53587.92 | 53436.03 | 53611.00 | 53407.73 | 53538.89 | 53623.17 | 53374.46 | 53466.59 | 53655.17 | 53567.78 | 53701.86 | 53612.00 | 53686.06 | 53739.63 | 53750.17 |
| | Mid-water | 53522.64 | 53442.21 | 53597.46 | 53391.53 | 53546.78 | 53662.50 | 53394.31 | 53462.36 | 53620.53 | 53550.63 | 53704.13 | 53589.17 | 53653.55 | 53714.84 | 53710.72 |
| | Bottom | 53509.68 | 53457.71 | 53582.64 | 53343.02 | 53530.16 | 53676.07 | 53400.74 | 53406.23 | 53605.31 | 53532.34 | 53631.08 | 53539.23 | 53612.73 | 53681.62 | 53704.88 |
| W16 | Surface | 53682.81 | 53530.00 | 53600.85 | 53464.61 | 53566.31 | 53423.29 | 53521.67 | 53589.34 | 53823.87 | 53680.94 | 53679.81 | 53751.79 | 53703.21 | 53844.20 | 53811.94 |
| | Mid-water | 53643.63 | 53491.56 | 53575.24 | 53450.00 | 53554.70 | 53681.75 | 53517.50 | 53556.71 | 53705.21 | 53596.59 | 53658.54 | 53702.91 | 53669.13 | 53847.38 | 53781.49 |
| | Bottom | 53623.14 | 53495.53 | 53564.69 | 53431.07 | 53562.22 | 53715.97 | 53530.31 | 53521.45 | 53656.90 | 53621.32 | 53661.89 | 53676.09 | 53683.44 | 53809.62 | 53755.71 |
| W19 (Background | Surface | 53738.36 | 53527.78 | 53590.67 | 53526.35 | | 53494.42 | 53535.38 | 53601.38 | 53714.10 | 53721.13 | 53722.93 | 53768.38 | 53794.75 | 53905.00 | 53844.24 |
| | Mid-water | 53677.81 | 53521.09 | 53578.59 | 53517.37 | | 53538.93 | 53468.50 | 53629.35 | 53735.06 | 53737.73 | 53715.76 | 53755.74 | 53719.18 | 53868.97 | 53816.70 |
| | Bottom | 53673.50 | 53476.43 | 53554.08 | 53445.28 | | 53564.31 | 53504.92 | 53637.86 | 53740.59 | 53721.01 | 53697.54 | 53751.67 | 53694.56 | 53850.62 | 53788.31 |
| W20 | Surface | 53690.61 | 53602.46 | 53500.00 | 53530.98 | | 53716.25 | 53520.39 | 53505.08 | 53674.79 | 53699.22 | 53602.16 | 53792.50 | 53661.44 | 53865.74 | 53801.67 |
| | Mid-water | 53622.21 | 53585.54 | 53475.63 | 53485.71 | | 53715.76 | 53476.38 | 53458.44 | 53633.51 | 53682.33 | 53560.38 | 53755.57 | 53661.54 | 53833.17 | 53770.63 |
| | Bottom | 53619.79 | 53581.11 | 53421.62 | 53445.37 | | 53702.21 | 53405.74 | 53402.41 | 53585.24 | 53622.65 | 53526.50 | 53727.70 | 53673.38 | 53812.32 | 53770.17 |
| W25 | Surface | 53650.34 | 53569.25 | 53539.66 | 53482.89 | | 53610.98 | 53486.06 | 53495.86 | 53758.28 | 53679.51 | 53731.52 | 53735.30 | 53722.13 | 53841.08 | 53847.45 |
| | Mid-water | 53613.27 | 53581.76 | 53522.61 | 53437.30 | | 53630.16 | 53453.53 | 53475.07 | 53696.08 | 53607.29 | 53726.03 | 53704.93 | 53657.68 | 53837.22 | 53822.62 |
| | Bottom | 53602.26 | 53528.37 | 53509.33 | 53429.14 | | 53620.28 | 53452.41 | 53482.66 | 53682.59 | 53608.31 | 53686.00 | 53710.00 | 53643.73 | 53814.33 | 53776.18 |
| W26 | Surface | 53640.33 | 53648.03 | 53490.86 | 53469.05 | | 53540.77 | 53473.96 | 53477.69 | 53602.12 | 53672.16 | 53555.96 | 53770.94 | 53682.48 | 53833.97 | 53741.14 |
| | Mid-water | 53581.45 | 53605.88 | 53446.94 | 53429.73 | | 53541.17 | 53423.64 | 53451.08 | 53555.49 | 53632.38 | 53545.52 | 53722.46 | 53653.33 | 53825.62 | 53728.09 |
| | Bottom | 53556.71 | 53588.45 | 53419.04 | 53407.89 | | 53542.97 | 53404.13 | 53439.80 | 53538.18 | 53591.84 | 53526.27 | 53710.16 | 53621.83 | 53821.17 | 53716.55 |
| W27 (Background | Surface | 53530.36 | 53614.08 | 53513.66 | 53507.39 | | 53580.00 | 53441.18 | 53494.47 | 53633.88 | 53657.69 | 53521.96 | 53735.83 | 53702.99 | 53862.41 | 53771.72 |
| | Mid-water | 53528.82 | 53609.12 | 53491.43 | 53474.46 | | 53555.35 | 53429.25 | 53461.52 | 53553.13 | 53637.95 | 53496.83 | 53653.23 | 53674.14 | 53761.13 | 53757.14 |
| | Bottom | 53530.27 | 53539.18 | 53482.50 | 53453.13 | | 53545.08 | 53407.24 | 53481.57 | 53566.48 | 53614.64 | 53495.08 | 53640.73 | 53624.07 | 53743.48 | 53714.31 |
| W36 | Surface | 53604.04 | 53601.43 | 53540.18 | 53522.35 | 53640.47 | 53707.22 | 53522.00 | 53514.92 | 53677.06 | 53634.22 | 53685.29 | 53758.48 | 53671.07 | 53828.82 | 53840.36 |
| | Mid-water | 53559.56 | 53594.76 | 53497.88 | 53505.05 | 53670.55 | 53777.90 | 53479.87 | 53517.22 | 53644.25 | 53613.28 | 53688.11 | 53759.37 | 53598.71 | 53793.23 | 53777.11 |
| | Bottom | 53488.15 | 53571.84 | 53504.44 | 53503.90 | 53731.94 | 53802.15 | 53462.38 | 53515.45 | 53602.05 | 53590.00 | 53628.89 | 53720.69 | 53569.03 | 53797.16 | 53752.64 |
| W45 | Surface | 53550.56 | 53579.39 | 53460.00 | 53514.73 | | 53639.27 | 53519.73 | 53507.17 | 53713.33 | 53722.24 | 53617.22 | 53737.78 | 53717.07 | 53836.67 | 53601.83 |
| | Mid-water | 53511.51 | 53598.13 | 53453.42 | 53497.46 | | 53600.19 | 53476.81 | 53468.59 | 53688.15 | 53662.69 | 53603.52 | 53698.39 | 53666.52 | 53845.00 | 53832.22 |
| | Bottom | 53528.18 | 53586.45 | 53427.09 | 53457.14 | | 53590.58 | 53478.87 | 53437.55 | 53597.81 | 53623.53 | 53610.85 | 53665.42 | 53627.71 | 53820.34 | 53830.70 |
| W46 | Surface | 53650.93 | 53605.17 | 53452.81 | 53493.00 | | 53632.25 | 53468.64 | 53504.86 | 53730.31 | 53703.95 | 53572.09 | 53745.25 | 53701.59 | 53894.92 | 53839.23 |
| | Mid-water | 53591.18 | 53570.88 | 53444.65 | 53492.28 | | 53658.06 | 53506.36 | 53459.37 | 53690.68 | 53630.87 | 53571.01 | 53726.94 | 53646.67 | 53854.00 | 53810.15 |
| | Bottom | 53577.27 | 53539.23 | 53424.83 | 53455.65 | | 53646.72 | 53508.17 | 53444.84 | 53638.44 | 53606.51 | 53548.71 | 53699.21 | 53644.13 | 53822.25 | 53772.58 |
| W47 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W51 | Surface | 53648.27 | 53594.06 | 53519.52 | 53527.91 | | 53603.00 | 53487.06 | 53564.04 | 53692.34 | 53681.09 | 53653.44 | 53799.55 | 53719.74 | 53877.20 | 53828.92 |
| | Mid-water | 53598.74 | 53605.96 | 53484.32 | 53490.00 | | 53612.98 | 53422.39 | 53524.60 | 53611.15 | 53650.67 | 53633.50 | 53745.90 | 53653.91 | 53816.87 | 53778.36 |
| | Bottom | 53571.51 | 53539.29 | 53458.05 | 53453.19 | | 53651.05 | 53424.64 | 53507.19 | 53554.42 | 53610.96 | 53591.33 | 53728.95 | 53641.75 | 53823.80 | 53744.83 |

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Dredging & Marine Experts

| | Date | 2020-Aug-11 | 2020-Aug-12 | 2020-Aug-13 | 2020-Aug-14 | 2020-Aug-15 | 2020-Aug-16 | 2020-Aug-17 | 2020-Aug-18 | 2020-Aug-19 | 2020-Aug-20 | 2020-Aug-21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity | Conductivity |
| W2 | Surface | 53734.37 | 53728.43 | 53782.56 | 53830.18 | 53809.83 | 53700.83 | 53939.55 | 53912.05 | 54021.17 | 53962.71 | 53811.03 |
| | Mid-water | 53724.91 | 53725.67 | 53769.23 | 53848.13 | 53744.67 | 53666.40 | 53906.20 | 53898.62 | 54028.15 | 53899.18 | 53794.94 |
| | Bottom | 53673.19 | 53738.79 | 53720.96 | 53817.07 | 53760.82 | 53666.88 | 53881.53 | 53854.08 | 53958.39 | 53881.49 | 53791.43 |
| W5 | Surface | 53780.00 | 53721.48 | 53775.62 | 53882.47 | 53741.36 | 53631.85 | 53954.92 | 53868.05 | 53956.83 | 53857.91 | 53755.00 |
| | Mid-water | 53747.21 | 53710.00 | 53728.92 | 53853.98 | 53749.29 | 53577.91 | 53867.71 | 53857.23 | 53922.68 | 53809.51 | 53731.57 |
| | Bottom | 53735.00 | 53683.33 | 53725.32 | 53864.44 | 53706.92 | 53582.84 | 53796.03 | 53840.88 | 53930.13 | 53793.78 | 53684.69 |
| W7 | Surface | 53733.41 | 53733.70 | 53737.86 | 53852.81 | 53690.09 | 53747.86 | 53923.49 | 53936.12 | 54041.96 | 53943.00 | 53805.96 |
| | Mid-water | 53699.20 | 53697.73 | 53701.75 | 53831.52 | 53639.08 | 53671.48 | 53896.00 | 53863.64 | 53940.00 | 53849.85 | 53785.93 |
| | Bottom | 53702.20 | 53644.02 | 53707.02 | 53793.39 | 53626.76 | 53601.82 | 53812.47 | 53827.76 | 53903.42 | 53823.97 | 53759.07 |
| W10 | Surface | 53731.84 | 53740.70 | 53753.38 | 53865.41 | 53827.57 | 53735.08 | 53958.24 | 53961.34 | 54048.03 | 54028.33 | 53803.57 |
| | Mid-water | 53685.67 | 53698.55 | 53726.56 | 53810.13 | 53811.30 | 53696.51 | 53828.64 | 53927.23 | 53951.30 | 53986.38 | 53803.86 |
| | Bottom | 53684.43 | 53660.75 | 53713.13 | 53794.81 | 53723.72 | 53644.07 | 53794.93 | 53882.41 | 53906.33 | 53885.82 | 53759.43 |
| W11 | Surface | 53709.80 | 53722.67 | 53739.80 | 53868.65 | 53848.45 | 53817.94 | 53928.17 | 53967.07 | 54025.53 | 53993.57 | 53830.71 |
| | Mid-water | 53706.78 | 53697.71 | 53716.27 | 53846.13 | 53773.62 | 53714.25 | 53903.54 | 53954.56 | 53979.04 | 54007.77 | 53811.57 |
| | Bottom | 53672.50 | 53691.88 | 53711.96 | 53840.18 | 53732.95 | 53606.61 | 53893.90 | 53883.13 | 53955.83 | 53961.37 | 53786.46 |
| W14 | Surface | 53630.36 | 53735.83 | 53792.81 | 53809.83 | 53835.78 | 53731.74 | 53937.63 | 53917.38 | 54060.82 | 53964.90 | 53901.04 |
| | Mid-water | 53693.09 | 53720.16 | 53733.56 | 53822.88 | 53776.74 | 53696.04 | 53905.68 | 53894.57 | 54016.49 | 53954.11 | 53854.00 |
| | Bottom | 53707.76 | 53681.03 | 53739.20 | 53800.46 | 53795.15 | 53676.15 | 53915.21 | 53924.48 | 53992.50 | 53926.79 | 53823.77 |
| W15 | Surface | 53748.93 | 53700.71 | 53763.13 | 53863.94 | 53605.68 | 53730.93 | 53937.59 | 53904.57 | 54052.62 | 53872.33 | 53791.13 |
| | Mid-water | 53712.46 | 53669.86 | 53733.86 | 53850.54 | 53644.76 | 53654.33 | 53902.69 | 53825.69 | 53996.00 | 53792.60 | 53724.72 |
| | Bottom | 53671.94 | 53677.06 | 53668.25 | 53809.44 | 53625.58 | 53594.26 | 53807.06 | 53846.62 | 53958.31 | 53746.83 | 53729.15 |
| W16 | Surface | 53781.18 | 53805.00 | 53845.32 | 53875.90 | 53849.13 | 53690.54 | 53988.92 | 53964.46 | 54060.19 | 53916.50 | 53840.26 |
| | Mid-water | 53725.84 | 53749.06 | 53788.08 | 53834.31 | 53830.90 | 53684.75 | 53912.94 | 53954.12 | 54012.27 | 53892.33 | 53831.91 |
| | Bottom | 53704.46 | 53765.12 | 53763.48 | 53820.48 | 53785.31 | 53671.82 | 53890.43 | 53914.91 | 53997.10 | 53894.42 | 53780.89 |
| W19 (Background | Surface | 53807.80 | 53796.17 | 53838.28 | 53948.98 | 53878.38 | 53754.27 | 53988.45 | 54036.95 | 54053.33 | 53960.59 | 53913.92 |
| | Mid-water | 53787.07 | 53755.48 | 53798.51 | 53893.48 | 53820.97 | 53726.98 | 53912.56 | 53983.33 | 53998.00 | 53926.23 | 53875.76 |
| | Bottom | 53751.19 | 53718.39 | 53785.25 | 53830.33 | 53829.71 | 53719.46 | 53876.16 | 53935.94 | 53994.85 | 53910.16 | 53853.64 |
| W20 | Surface | 53818.91 | 53856.62 | 53824.10 | 53966.88 | 53914.87 | 53722.82 | 53916.56 | 53933.21 | 54005.28 | 53999.68 | 53917.60 |
| | Mid-water | 53746.29 | 53735.00 | 53741.64 | 53855.41 | 53758.20 | 53676.45 | 53868.50 | 53879.02 | 53990.68 | 53926.35 | 53895.20 |
| | Bottom | 53742.76 | 53732.22 | 53731.40 | 53856.76 | 53745.83 | 53658.37 | 53850.60 | 53851.13 | 53998.06 | 53931.82 | 53823.45 |
| W25 | Surface | 53820.44 | 53830.63 | 53844.17 | 53905.36 | 53885.95 | 53755.76 | 53916.76 | 53965.54 | 54047.37 | 53970.23 | 53890.00 |
| | Mid-water | 53772.86 | 53810.90 | 53758.75 | 53884.35 | 53800.34 | 53736.81 | 53842.32 | 53901.31 | 54054.35 | 53894.39 | 53825.51 |
| | Bottom | 53751.56 | 53752.76 | 53777.03 | 53875.77 | 53775.78 | 53703.70 | 53814.07 | 53863.46 | 54028.36 | 53918.84 | 53758.00 |
| W26 | Surface | 53789.19 | 53847.50 | 53845.69 | 53605.47 | 53871.12 | 53745.17 | 53814.46 | 53891.94 | 54010.00 | 54019.78 | 53759.83 |
| | Mid-water | 53756.67 | 53763.00 | 53777.68 | 53902.50 | 53781.97 | 53672.47 | 53809.33 | 53861.25 | 53929.73 | 53941.49 | 53717.69 |
| | Bottom | 53714.53 | 53709.71 | 53753.06 | 53852.22 | 53757.23 | 53670.30 | 53834.39 | 53882.46 | 53893.28 | 53926.50 | 53677.50 |
| W27 (Background | Surface | 53744.42 | 53784.85 | 53846.78 | 53959.43 | 53892.61 | 53702.68 | 53756.15 | 53939.01 | 54011.90 | 54070.28 | 53758.65 |
| | Mid-water | 53717.29 | 53752.88 | 53759.86 | 53896.84 | 53805.67 | 53647.83 | 53680.14 | 53886.88 | 53930.70 | 53975.87 | 53724.84 |
| | Bottom | 53706.79 | 53712.10 | 53756.51 | 53853.70 | 53712.86 | 53643.33 | 53666.88 | 53835.09 | 53931.11 | 53958.82 | 53688.20 |
| W36 | Surface | 53793.91 | 53758.08 | 53799.81 | 53897.96 | 53805.53 | 53659.01 | 53905.74 | 53975.87 | 53954.22 | 54159.33 | 53809.02 |
| | Mid-water | 53777.42 | 53743.72 | 53771.30 | 53862.03 | 53758.17 | 53647.67 | 53842.03 | 53905.12 | 53972.93 | 54105.68 | 53758.21 |
| | Bottom | 53739.37 | 53734.63 | 53723.69 | 53861.00 | 53736.80 | 53645.43 | 53830.13 | 53868.85 | 53917.56 | 54082.62 | 53765.74 |
| W45 | Surface | 53783.15 | 53815.33 | 53824.00 | 53965.54 | 53874.73 | 53778.77 | 53792.73 | 53958.44 | 54025.56 | 54176.35 | 53864.82 |
| | Mid-water | 53718.50 | 53745.96 | 53738.39 | 53899.66 | 53787.81 | 53709.78 | 53743.59 | 53886.04 | 53985.67 | 54132.46 | 53825.87 |
| | Bottom | 53742.90 | 53745.40 | 53705.92 | 53864.68 | 53784.81 | 53670.00 | 53738.44 | 53820.25 | 53932.22 | 54114.58 | 53806.67 |
| W46 | Surface | 53815.78 | 53823.28 | 53787.50 | 53936.60 | 53869.46 | 53814.94 | 53750.92 | 53976.00 | 54021.73 | 54121.80 | 53873.75 |
| | Mid-water | 53757.23 | 53766.61 | 53728.81 | 53869.63 | 53804.04 | 53671.57 | 53744.47 | 53894.85 | 53991.82 | 54102.81 | 53814.43 |
| | Bottom | 53742.66 | 53762.59 | 53741.75 | 53843.33 | 53755.56 | 53659.66 | 53719.20 | 53843.50 | 53904.72 | 54081.67 | 53799.46 |
| W47 | Surface | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | |
| W51 | Surface | 53814.71 | 53808.96 | 53846.78 | 53947.60 | 53825.08 | 53734.88 | 53908.00 | 53930.00 | 53987.36 | 53912.86 | 53854.39 |
| | Mid-water | 53758.41 | 53738.93 | 53795.36 | 53860.86 | 53805.25 | 53729.76 | 53840.00 | 53917.26 | 53963.56 | 53868.46 | 53750.20 |
| | Bottom | 53737.23 | 53730.98 | 53775.64 | 53831.36 | 53780.75 | 53706.92 | 53839.08 | 53888.41 | 53932.89 | 53851.83 | 53738.92 |

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## *Table 13: 28th May until 21st August 2020 Daily Average Turbidity (NTU) Data*

| | Date | 2020-May-28 | 2020-May-29 | 2020-May-30 | 2020-May-31 | 2020-Jun-01 | 2020-Jun-02 | 2020-Jun-03 | 2020-Jun-04 | 2020-Jun-05 | 2020-Jun-06 | 2020-Jun-07 | 2020-Jun-08 | 2020-Jun-09 | 2020-Jun-10 | 2020-Jun-11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity |
| W2 | Surface | -0.11 | -0.08 | -0.06 | -0.09 | -0.15 | -0.16 | -0.07 | -0.07 | -0.13 | -0.12 | -0.11 | 0.10 | 0.02 | -0.01 | -0.02 |
| | Mid-water | -0.11 | -0.10 | -0.05 | -0.08 | -0.17 | -0.16 | -0.06 | -0.05 | -0.11 | -0.12 | -0.13 | -0.03 | 0.02 | 0.01 | -0.11 |
| | Bottom | -0.06 | 0.57 | -0.06 | 0.06 | -0.14 | -0.15 | -0.05 | 0.01 | -0.07 | 0.23 | -0.09 | -0.06 | 0.02 | 0.03 | -0.08 |
| W5 | Surface | -0.08 | -0.15 | -0.13 | -0.03 | -0.16 | -0.09 | 0.71 | -0.07 | 0.47 | -0.02 | 0.47 | 3.61 | 0.31 | 1.25 | 10.55 |
| | Mid-water | -0.11 | -0.16 | -0.11 | -0.07 | -0.14 | -0.13 | 0.38 | -0.08 | 0.67 | -0.04 | 0.29 | 2.00 | 0.00 | 1.01 | 0.60 |
| | Bottom | -0.12 | -0.13 | -0.09 | 0.03 | -0.13 | -0.02 | -0.02 | -0.07 | -0.02 | 0.09 | 0.67 | 0.03 | 0.27 | 1.08 | 2.09 |
| W7 | Surface | -0.13 | -0.20 | -0.14 | -0.11 | -0.11 | -0.15 | -0.12 | -0.15 | -0.15 | -0.15 | -0.17 | -0.11 | -0.09 | -0.13 | -0.12 |
| | Mid-water | -0.14 | -0.18 | -0.10 | -0.11 | -0.13 | -0.15 | -0.12 | -0.17 | -0.15 | -0.13 | -0.12 | -0.12 | -0.10 | -0.13 | -0.13 |
| | Bottom | -0.15 | -0.15 | -0.12 | -0.09 | -0.15 | -0.13 | 0.13 | -0.15 | -0.13 | -0.15 | -0.06 | -0.10 | -0.10 | -0.11 | -0.14 |
| W10 | Surface | -0.16 | -0.20 | -0.17 | -0.11 | -0.06 | -0.15 | -0.11 | -0.13 | -0.15 | -0.15 | -0.14 | -0.14 | -0.13 | -0.10 | -0.12 |
| | Mid-water | -0.15 | -0.18 | -0.16 | -0.10 | -0.14 | -0.15 | -0.12 | -0.15 | -0.16 | -0.14 | -0.15 | -0.11 | -0.13 | -0.11 | -0.12 |
| | Bottom | -0.17 | -0.18 | -0.13 | -0.13 | -0.10 | -0.15 | -0.08 | -0.14 | -0.14 | -0.13 | 0.04 | -0.09 | -0.12 | 0.00 | -0.09 |
| W11 | Surface | -0.16 | -0.18 | -0.20 | -0.13 | -0.11 | -0.16 | -0.12 | -0.09 | -0.13 | -0.13 | -0.12 | -0.11 | -0.11 | -0.09 | -0.13 |
| | Mid-water | -0.18 | -0.17 | -0.20 | -0.12 | -0.14 | -0.13 | -0.10 | -0.07 | -0.13 | -0.12 | -0.10 | -0.11 | -0.10 | -0.07 | -0.11 |
| | Bottom | 0.08 | -0.16 | -0.19 | -0.10 | -0.12 | -0.08 | -0.11 | 0.02 | -0.14 | -0.12 | -0.11 | -0.09 | -0.08 | -0.09 | -0.11 |
| W14 | Surface | -0.07 | -0.07 | -0.06 | 0.01 | -0.07 | -0.04 | 0.07 | -0.08 | -0.03 | -0.06 | -0.04 | 0.22 | 0.05 | 0.10 | 0.00 |
| | Mid-water | 0.01 | -0.09 | -0.04 | 0.06 | -0.05 | -0.05 | -0.06 | 0.06 | -0.01 | 0.00 | -0.04 | 0.17 | 0.15 | 0.11 | 0.08 |
| | Bottom | 0.40 | 0.03 | -0.02 | 0.26 | 0.21 | -0.05 | 0.01 | 0.10 | 0.03 | 0.18 | 0.08 | 0.37 | 0.23 | 0.36 | 0.10 |
| W15 | Surface | -0.08 | -0.15 | -0.14 | 0.05 | -0.14 | -0.07 | -0.12 | -0.11 | -0.09 | -0.06 | -0.12 | -0.08 | -0.13 | -0.13 | -0.13 |
| | Mid-water | -0.11 | -0.15 | -0.12 | 0.04 | -0.16 | -0.15 | -0.12 | -0.01 | -0.01 | -0.05 | -0.13 | -0.08 | 0.34 | -0.09 | -0.12 |
| | Bottom | -0.18 | -0.12 | -0.14 | 0.12 | -0.14 | -0.14 | -0.10 | -0.07 | -0.04 | -0.06 | -0.07 | -0.06 | 0.12 | -0.10 | 0.02 |
| W16 | Surface | -0.10 | -0.15 | -0.16 | -0.10 | -0.15 | -0.13 | -0.07 | -0.11 | -0.14 | -0.10 | -0.11 | -0.06 | -0.06 | -0.07 | 0.00 |
| | Mid-water | -0.08 | -0.17 | -0.17 | -0.10 | -0.16 | -0.14 | -0.13 | -0.13 | -0.12 | -0.13 | -0.12 | -0.06 | -0.08 | -0.06 | -0.10 |
| | Bottom | -0.08 | -0.18 | -0.15 | -0.10 | -0.12 | -0.15 | -0.10 | -0.11 | -0.10 | -0.04 | -0.12 | 0.01 | -0.07 | -0.05 | -0.05 |
| W19 (Background | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W20 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W25 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W26 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W27 (Background | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W36 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W45 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W46 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W47 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W51 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |

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| | Date | 2020-Jun-12 | 2020-Jun-13 | 2020-Jun-14 | 2020-Jun-15 | 2020-Jun-16 | 2020-Jun-17 | 2020-Jun-18 | 2020-Jun-19 | 2020-Jun-20 | 2020-Jun-21 | 2020-Jun-22 | 2020-Jun-23 | 2020-Jun-24 | 2020-Jun-25 | 2020-Jun-26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity |
| W2 | Surface | -0.11 | -0.07 | -0.05 | -0.06 | 0.06 | -0.12 | -0.10 | -0.09 | 0.26 | -0.06 | -0.08 | -0.09 | 0.43 | 0.26 | 0.05 |
| | Mid-water | -0.10 | -0.11 | -0.13 | 0.02 | 0.01 | -0.14 | -0.07 | -0.04 | 0.25 | -0.04 | -0.03 | -0.04 | 0.41 | 0.26 | 0.12 |
| | Bottom | -0.05 | -0.10 | -0.11 | 0.30 | 0.42 | -0.11 | 0.14 | 0.07 | 1.11 | -0.04 | -0.05 | 0.03 | 0.56 | 0.40 | 0.14 |
| W5 | Surface | -0.13 | 0.06 | 0.05 | 0.18 | 1.39 | 0.39 | -0.07 | 0.27 | 1.38 | 3.20 | 1.49 | 0.27 | 0.85 | 0.08 | 2.52 |
| | Mid-water | -0.13 | -0.03 | 0.07 | -0.11 | 0.21 | 0.75 | | 0.28 | 0.67 | 0.99 | 0.81 | 0.64 | 0.90 | 0.06 | 0.94 |
| | Bottom | -0.13 | -0.13 | 0.17 | -0.13 | 0.10 | 0.06 | 0.32 | 0.42 | 0.16 | 0.58 | 0.49 | 0.36 | 1.14 | 0.46 | 0.92 |
| W7 | Surface | -0.11 | -0.15 | -0.16 | -0.11 | 0.12 | -0.05 | 0.05 | -0.15 | -0.14 | -0.07 | -0.12 | -0.16 | 0.24 | -0.14 | 0.12 |
| | Mid-water | -0.10 | -0.14 | -0.15 | -0.13 | -0.06 | -0.09 | 0.12 | -0.15 | -0.16 | -0.07 | -0.11 | -0.16 | 0.24 | -0.13 | -0.11 |
| | Bottom | -0.10 | -0.12 | -0.09 | -0.10 | -0.09 | -0.11 | 0.06 | -0.14 | -0.14 | -0.09 | -0.11 | -0.12 | 0.12 | -0.13 | -0.07 |
| W10 | Surface | -0.04 | -0.12 | -0.15 | -0.04 | 0.05 | -0.12 | 1.23 | -0.14 | -0.09 | -0.03 | -0.11 | -0.13 | 0.07 | -0.12 | 0.06 |
| | Mid-water | -0.02 | -0.14 | -0.17 | -0.08 | -0.12 | -0.07 | -0.01 | -0.13 | -0.03 | -0.12 | -0.11 | -0.12 | -0.08 | -0.11 | -0.03 |
| | Bottom | -0.02 | -0.14 | -0.14 | -0.09 | -0.12 | -0.10 | -0.14 | -0.14 | -0.06 | -0.10 | -0.11 | -0.15 | -0.07 | -0.10 | -0.01 |
| W11 | Surface | -0.06 | -0.15 | -0.17 | -0.08 | -0.09 | -0.11 | -0.08 | -0.15 | -0.10 | -0.10 | -0.08 | -0.14 | 0.01 | 0.03 | 0.09 |
| | Mid-water | -0.10 | -0.14 | -0.13 | -0.05 | -0.08 | -0.14 | -0.07 | -0.16 | -0.10 | -0.11 | -0.10 | -0.14 | 0.01 | 0.01 | 0.06 |
| | Bottom | -0.08 | -0.13 | -0.13 | -0.05 | -0.07 | -0.13 | -0.05 | -0.15 | -0.05 | -0.10 | -0.08 | -0.13 | 0.15 | -0.03 | 0.15 |
| W14 | Surface | -0.05 | -0.05 | 0.13 | 0.03 | 0.08 | 0.25 | 0.24 | 0.30 | 1.31 | 0.32 | 0.25 | 0.22 | 0.46 | 0.99 | 0.90 |
| | Mid-water | -0.03 | 0.12 | 0.40 | 0.29 | 0.68 | 0.44 | 0.82 | 0.20 | 1.09 | 0.37 | 0.47 | 0.84 | 0.52 | 2.27 | 1.55 |
| | Bottom | 0.58 | 0.34 | 0.87 | 0.54 | 0.86 | 0.52 | 0.75 | 1.25 | 1.05 | 1.05 | 1.05 | 1.16 | 0.59 | 1.51 | 1.54 |
| W15 | Surface | -0.12 | -0.14 | -0.06 | -0.10 | 0.13 | 0.14 | 0.08 | -0.01 | 0.22 | -0.11 | 0.00 | -0.12 | 0.09 | -0.05 | -0.05 |
| | Mid-water | -0.12 | -0.14 | -0.12 | -0.12 | 0.13 | 0.14 | 0.08 | -0.05 | 0.20 | -0.07 | 0.02 | -0.13 | 0.17 | -0.03 | 0.01 |
| | Bottom | -0.12 | -0.11 | -0.11 | -0.12 | 0.12 | 0.08 | 0.14 | 0.02 | 0.19 | -0.03 | 0.06 | -0.10 | 0.18 | 0.02 | 0.02 |
| W16 | Surface | -0.11 | -0.01 | -0.12 | -0.04 | -0.02 | -0.14 | -0.13 | 0.01 | -0.09 | -0.14 | -0.11 | -0.06 | -0.02 | -0.05 | 0.01 |
| | Mid-water | -0.11 | -0.09 | -0.15 | -0.04 | -0.11 | -0.11 | -0.14 | -0.04 | -0.09 | -0.15 | -0.10 | -0.10 | -0.01 | -0.02 | 0.04 |
| | Bottom | -0.08 | -0.09 | -0.13 | -0.06 | -0.09 | -0.11 | -0.13 | -0.03 | -0.11 | -0.15 | -0.06 | -0.09 | 0.00 | 0.05 | 0.08 |
| W19 (Background | Surface | -0.12 | | -0.04 | -0.15 | -0.10 | -0.13 | -0.14 | -0.13 | -0.17 | -0.14 | -0.14 | -0.10 | -0.08 | -0.09 | -0.04 |
| | Mid-water | -0.10 | | -0.12 | -0.17 | -0.10 | -0.12 | -0.14 | -0.14 | -0.17 | -0.15 | -0.11 | -0.10 | -0.08 | -0.08 | -0.05 |
| | Bottom | -0.11 | | -0.10 | -0.14 | -0.10 | -0.11 | -0.13 | -0.14 | -0.15 | -0.16 | -0.11 | -0.08 | -0.08 | -0.06 | -0.08 |
| W20 | Surface | -0.12 | | -0.12 | 0.26 | -0.11 | -0.09 | 0.75 | 0.29 | -0.11 | -0.13 | -0.07 | -0.02 | 0.35 | -0.02 | |
| | Mid-water | -0.11 | | -0.10 | -0.02 | -0.07 | -0.07 | 0.09 | 0.24 | -0.10 | -0.11 | -0.11 | -0.05 | 0.03 | -0.03 | |
| | Bottom | -0.09 | | -0.10 | -0.02 | 0.05 | -0.07 | 0.04 | 0.14 | -0.07 | -0.11 | 0.41 | -0.03 | -0.07 | 0.03 | |
| W25 | Surface | -0.12 | | -0.08 | -0.13 | -0.11 | -0.16 | 0.02 | -0.15 | -0.10 | -0.16 | -0.06 | 0.30 | -0.06 | -0.07 | |
| | Mid-water | -0.09 | | -0.14 | -0.12 | -0.10 | -0.15 | -0.05 | -0.13 | -0.12 | -0.13 | -0.10 | -0.12 | -0.02 | -0.04 | |
| | Bottom | -0.09 | | -0.14 | -0.09 | -0.09 | -0.12 | -0.10 | -0.08 | -0.15 | -0.15 | -0.09 | -0.08 | 0.03 | -0.06 | |
| W26 | Surface | | | | | | | -0.03 | -0.15 | -0.15 | 0.29 | -0.07 | -0.10 | -0.08 | -0.10 | |
| | Mid-water | | | | | | | -0.07 | -0.14 | -0.14 | -0.10 | -0.05 | -0.12 | -0.06 | -0.07 | |
| | Bottom | | | | | | | -0.07 | -0.12 | -0.10 | -0.01 | -0.09 | -0.13 | -0.09 | -0.01 | |
| W27 (Background | Surface | -0.11 | | -0.17 | -0.13 | -0.12 | -0.08 | -0.10 | -0.13 | -0.13 | -0.11 | -0.13 | -0.11 | -0.07 | -0.08 | |
| | Mid-water | -0.11 | | -0.16 | -0.13 | -0.10 | -0.10 | -0.09 | -0.15 | -0.11 | -0.10 | -0.12 | -0.12 | -0.04 | -0.07 | |
| | Bottom | -0.10 | | -0.15 | -0.12 | -0.10 | -0.07 | -0.08 | -0.11 | -0.12 | -0.09 | -0.13 | -0.10 | -0.04 | -0.05 | |
| W36 | Surface | -0.12 | | -0.12 | -0.16 | -0.05 | | -0.09 | 0.13 | -0.12 | 0.02 | -0.14 | -0.08 | -0.02 | 0.05 | 0.10 |
| | Mid-water | -0.12 | | -0.08 | -0.16 | -0.04 | | -0.08 | 0.26 | -0.01 | 0.05 | -0.12 | -0.06 | -0.01 | 0.07 | 0.09 |
| | Bottom | -0.06 | | -0.08 | -0.15 | -0.06 | | -0.08 | 0.39 | -0.08 | 0.05 | -0.03 | -0.07 | 0.00 | 0.02 | 0.05 |
| W45 | Surface | 0.03 | | -0.12 | -0.15 | -0.01 | | -0.11 | 0.13 | -0.14 | 0.17 | -0.13 | -0.09 | -0.06 | 0.17 | 0.23 |
| | Mid-water | 0.05 | | 0.15 | -0.14 | 0.03 | | 0.11 | 0.13 | -0.14 | 0.04 | -0.11 | 0.07 | 0.02 | 0.34 | 0.18 |
| | Bottom | -0.10 | | 0.01 | -0.14 | 0.08 | | 0.05 | 0.07 | -0.11 | 0.11 | -0.07 | 0.22 | 0.03 | 0.71 | 1.92 |
| W46 | Surface | -0.15 | | -0.14 | -0.08 | -0.02 | | 0.03 | 0.01 | -0.12 | -0.12 | -0.08 | 0.06 | 0.00 | 0.00 | |
| | Mid-water | -0.14 | | -0.11 | -0.07 | 0.25 | | 0.10 | -0.06 | -0.12 | -0.07 | -0.08 | 0.05 | -0.02 | 0.07 | |
| | Bottom | -0.10 | | -0.10 | 0.01 | 0.69 | | 0.47 | -0.08 | 0.02 | 0.02 | -0.06 | 0.00 | 0.02 | 0.10 | |
| W47 | Surface | -0.13 | | 0.25 | -0.18 | 0.02 | | -0.13 | -0.11 | -0.03 | -0.04 | -0.04 | | | | |
| | Mid-water | -0.13 | | 0.39 | -0.18 | | | -0.03 | -0.12 | -0.09 | 0.05 | 0.00 | | | | |
| | Bottom | -0.12 | | 0.13 | -0.13 | -0.05 | | -0.03 | -0.10 | -0.07 | 0.14 | -0.02 | | | | |
| W51 | Surface | -0.09 | | -0.06 | -0.11 | -0.11 | -0.12 | 0.01 | -0.07 | -0.09 | -0.05 | -0.02 | -0.14 | -0.07 | -0.08 | |
| | Mid-water | -0.09 | | -0.09 | -0.07 | -0.05 | -0.13 | -0.11 | -0.06 | -0.05 | -0.12 | -0.05 | -0.11 | -0.04 | -0.05 | |
| | Bottom | -0.09 | | -0.12 | -0.13 | -0.10 | -0.12 | -0.11 | -0.13 | -0.08 | -0.11 | -0.03 | -0.03 | 0.01 | -0.03 | |

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| | Date | 2020-Jun-27 | 2020-Jun-28 | 2020-Jun-29 | 2020-Jun-30 | 2020-Jul-01 | 2020-Jul-02 | 2020-Jul-03 | 2020-Jul-04 | 2020-Jul-05 | 2020-Jul-06 | 2020-Jul-07 | 2020-Jul-08 | 2020-Jul-09 | 2020-Jul-10 | 2020-Jul-11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity |
| W2 | Surface | -0.03 | 0.15 | -0.01 | 0.17 | 1.61 | 1.75 | -0.07 | -0.12 | -0.02 | | 0.88 | 0.92 | 0.25 | -0.04 | 0.06 |
| | Mid-water | 0.16 | 0.08 | 0.03 | 0.20 | 0.71 | 0.22 | -0.02 | -0.09 | -0.01 | | 0.35 | 0.14 | 0.35 | -0.03 | 0.02 |
| | Bottom | 0.20 | 0.28 | 0.01 | 0.25 | 0.29 | 0.23 | 0.04 | 0.05 | 2.19 | | 0.69 | 0.25 | 0.83 | -0.01 | 0.07 |
| W5 | Surface | -0.03 | -0.04 | 1.13 | 1.58 | 0.45 | 2.45 | 0.24 | 0.19 | 0.38 | | -0.04 | 0.11 | 0.91 | 0.19 | 0.40 |
| | Mid-water | -0.02 | 0.00 | -0.02 | 0.30 | 0.66 | 0.30 | 0.35 | 0.17 | 0.49 | | 0.08 | 0.20 | 0.16 | 0.14 | 0.13 |
| | Bottom | 0.05 | 0.01 | -0.03 | 0.44 | 0.51 | 0.51 | 0.87 | 0.39 | 0.53 | | 0.34 | 1.44 | 0.68 | 0.36 | 0.51 |
| W7 | Surface | -0.11 | -0.09 | -0.14 | 0.15 | -0.11 | -0.11 | -0.07 | 0.22 | -0.05 | -0.16 | -0.16 | -0.14 | -0.01 | | -0.13 |
| | Mid-water | -0.09 | -0.10 | -0.14 | -0.05 | -0.12 | -0.09 | -0.12 | 0.37 | -0.03 | -0.13 | -0.16 | -0.13 | 0.01 | 0.03 | -0.13 |
| | Bottom | -0.05 | -0.10 | -0.14 | -0.04 | -0.12 | -0.09 | -0.14 | -0.09 | 0.08 | 0.14 | -0.16 | -0.13 | 0.05 | 0.06 | -0.12 |
| W10 | Surface | -0.11 | -0.12 | 0.14 | -0.05 | -0.12 | -0.09 | -0.17 | -0.15 | 0.26 | -0.17 | -0.18 | -0.14 | -0.10 | -0.14 | -0.16 |
| | Mid-water | -0.07 | -0.05 | 0.03 | -0.05 | -0.10 | -0.07 | -0.13 | -0.15 | 0.07 | -0.14 | -0.18 | -0.13 | -0.10 | -0.13 | -0.15 |
| | Bottom | -0.08 | -0.10 | -0.07 | -0.06 | -0.10 | -0.04 | -0.16 | -0.14 | 0.10 | -0.14 | -0.16 | -0.12 | -0.07 | -0.14 | -0.13 |
| W11 | Surface | -0.11 | 1.32 | 0.10 | -0.07 | -0.12 | -0.05 | -0.13 | -0.04 | 0.01 | -0.16 | -0.18 | -0.11 | 0.05 | -0.18 | -0.16 |
| | Mid-water | -0.10 | 2.40 | 0.07 | -0.04 | -0.11 | -0.05 | -0.14 | -0.04 | 0.04 | -0.10 | -0.18 | -0.11 | 0.15 | -0.15 | -0.15 |
| | Bottom | -0.12 | -0.01 | 0.05 | -0.05 | -0.09 | -0.03 | -0.15 | 0.02 | 0.09 | -0.08 | -0.09 | -0.10 | 0.19 | -0.09 | -0.14 |
| W14 | Surface | 0.24 | 0.29 | 0.71 | 1.45 | 0.14 | 0.16 | 0.39 | 0.05 | 0.03 | 1.06 | 0.50 | 0.93 | 0.18 | 0.73 | -0.02 |
| | Mid-water | 0.67 | 3.80 | 0.50 | 1.27 | 0.26 | 0.32 | 0.25 | 0.12 | 0.13 | 1.04 | 0.23 | 0.57 | 0.63 | 0.08 | 0.08 |
| | Bottom | 1.84 | 1.61 | 0.11 | 0.48 | 0.54 | 0.62 | 0.88 | 0.36 | 0.53 | 0.83 | 0.37 | 1.36 | 0.26 | 0.46 | 0.34 |
| W15 | Surface | -0.03 | 0.03 | -0.01 | -0.02 | -0.11 | 0.16 | 0.00 | -0.15 | 0.32 | -0.06 | -0.16 | -0.03 | 0.49 | -0.11 | -0.04 |
| | Mid-water | -0.05 | 0.00 | -0.01 | -0.05 | -0.10 | 0.00 | 0.06 | -0.13 | 0.33 | 0.03 | -0.13 | -0.03 | 0.65 | -0.04 | -0.07 |
| | Bottom | -0.01 | 0.01 | -0.11 | -0.03 | -0.11 | 0.10 | 0.04 | -0.13 | 0.46 | 0.06 | -0.07 | 0.03 | 1.02 | -0.02 | -0.07 |
| W16 | Surface | -0.03 | -0.08 | 0.10 | 0.02 | -0.07 | 0.06 | -0.13 | -0.12 | 0.00 | | -0.04 | 0.05 | -0.03 | -0.19 | -0.01 |
| | Mid-water | -0.04 | -0.05 | 0.04 | 0.02 | 0.00 | 0.09 | -0.08 | -0.12 | 0.00 | | -0.09 | -0.10 | -0.05 | -0.20 | -0.05 |
| | Bottom | -0.03 | 0.04 | 0.32 | 0.06 | 0.01 | 0.16 | 0.02 | -0.14 | -0.01 | | -0.04 | -0.06 | -0.02 | -0.18 | -0.06 |
| W19 (Background | Surface | -0.09 | -0.12 | -0.08 | 0.00 | -0.04 | -0.09 | -0.16 | -0.14 | -0.15 | -0.15 | -0.18 | -0.14 | -0.12 | -0.19 | -0.14 |
| | Mid-water | -0.07 | -0.11 | -0.07 | -0.04 | -0.08 | -0.08 | -0.17 | -0.13 | -0.15 | -0.13 | -0.14 | -0.13 | -0.15 | -0.20 | -0.13 |
| | Bottom | -0.08 | -0.11 | -0.07 | -0.08 | -0.04 | -0.08 | -0.13 | -0.10 | -0.09 | -0.08 | -0.13 | -0.11 | -0.09 | -0.17 | -0.13 |
| W20 | Surface | -0.08 | -0.05 | 0.32 | 0.16 | -0.01 | 0.46 | 0.55 | -0.09 | 0.33 | 0.17 | -0.02 | -0.08 | 0.40 | -0.03 | -0.09 |
| | Mid-water | -0.02 | -0.09 | -0.01 | 0.17 | 0.98 | 0.07 | -0.03 | -0.02 | 0.29 | 0.11 | -0.02 | | 0.01 | -0.06 | -0.09 |
| | Bottom | -0.01 | -0.04 | 0.05 | 0.32 | 1.41 | 0.59 | 0.01 | 0.55 | 0.35 | 0.07 | -0.04 | 0.07 | 0.01 | 0.02 | -0.03 |
| W25 | Surface | -0.07 | -0.08 | -0.06 | -0.02 | 0.03 | 0.02 | -0.13 | -0.12 | -0.09 | -0.12 | -0.14 | -0.13 | -0.13 | -0.19 | -0.10 |
| | Mid-water | -0.01 | -0.08 | -0.05 | 0.12 | 0.01 | 0.04 | -0.09 | -0.14 | -0.08 | -0.10 | -0.11 | -0.11 | -0.11 | -0.20 | -0.10 |
| | Bottom | -0.08 | -0.10 | -0.06 | 0.33 | 0.03 | 0.11 | 0.03 | -0.12 | -0.07 | -0.08 | -0.05 | -0.10 | -0.12 | -0.14 | -0.09 |
| W26 | Surface | -0.09 | -0.15 | -0.09 | -0.03 | -0.02 | -0.01 | -0.08 | -0.06 | -0.12 | 0.07 | -0.06 | -0.01 | -0.11 | -0.17 | -0.11 |
| | Mid-water | -0.07 | -0.13 | -0.07 | 0.00 | -0.03 | -0.04 | -0.09 | -0.13 | -0.10 | -0.05 | -0.07 | -0.02 | -0.13 | -0.16 | -0.10 |
| | Bottom | -0.09 | -0.09 | -0.07 | 0.00 | -0.02 | -0.05 | -0.10 | -0.09 | -0.10 | -0.01 | -0.07 | | -0.08 | -0.14 | -0.02 |
| W27 (Background | Surface | -0.11 | -0.13 | -0.10 | -0.04 | -0.09 | -0.09 | -0.15 | -0.13 | -0.14 | 0.01 | | 0.01 | -0.12 | -0.16 | -0.16 |
| | Mid-water | -0.11 | -0.12 | -0.08 | -0.04 | -0.08 | -0.08 | -0.15 | -0.11 | -0.12 | -0.03 | -0.08 | | -0.09 | -0.16 | -0.15 |
| | Bottom | -0.10 | -0.12 | -0.08 | -0.03 | -0.06 | -0.05 | -0.11 | -0.09 | -0.12 | -0.06 | -0.06 | 0.04 | -0.12 | -0.15 | -0.14 |
| W36 | Surface | 0.06 | 0.03 | -0.03 | -0.09 | -0.02 | 0.17 | -0.02 | -0.12 | 0.11 | -0.01 | -0.17 | -0.03 | -0.13 | -0.08 | -0.08 |
| | Mid-water | 0.47 | 0.13 | 0.09 | -0.08 | -0.01 | 0.36 | 0.01 | 0.08 | 0.29 | 0.06 | -0.09 | 0.05 | -0.05 | 0.28 | -0.07 |
| | Bottom | 0.71 | 0.27 | 0.06 | -0.05 | 0.01 | 0.20 | 0.01 | 0.13 | 0.45 | 0.22 | 0.06 | 0.21 | 0.16 | 2.94 | -0.06 |
| W45 | Surface | 0.21 | 0.05 | -0.04 | 0.19 | 0.00 | 0.27 | 0.03 | -0.09 | 0.00 | | -0.04 | | 0.07 | 0.11 | 0.45 |
| | Mid-water | 0.10 | 0.07 | -0.03 | 0.84 | 0.07 | 0.53 | 0.09 | -0.04 | -0.03 | 0.08 | 0.04 | 0.47 | 0.05 | -0.04 | 0.20 |
| | Bottom | 0.01 | 0.12 | -0.01 | 1.31 | 0.04 | 2.87 | 0.08 | 0.09 | -0.03 | 0.10 | 0.22 | 0.30 | 0.36 | -0.13 | 0.29 |
| W46 | Surface | 0.16 | -0.13 | -0.04 | 0.05 | 0.26 | 0.13 | 0.06 | -0.09 | 0.00 | -0.04 | -0.08 | 0.01 | 0.13 | -0.10 | 0.07 |
| | Mid-water | 0.15 | -0.09 | -0.02 | -0.02 | 0.08 | 0.14 | 0.09 | -0.08 | 0.01 | 0.02 | -0.09 | | 0.05 | -0.10 | -0.05 |
| | Bottom | 0.09 | -0.09 | 0.01 | -0.01 | 0.23 | 0.06 | 0.18 | 1.19 | 0.14 | -0.02 | -0.01 | 0.10 | 0.03 | -0.11 | 0.07 |
| W47 | Surface | | -0.12 | | | | | | | | | | | | | |
| | Mid-water | | -0.12 | | | | | | | | | | | | | |
| | Bottom | | -0.13 | | | | | | | | | | | | | |
| W51 | Surface | -0.06 | -0.10 | -0.06 | -0.05 | -0.02 | 0.01 | -0.04 | -0.16 | -0.10 | -0.12 | -0.11 | -0.12 | -0.10 | -0.18 | -0.13 |
| | Mid-water | -0.05 | -0.09 | -0.04 | -0.05 | -0.01 | -0.03 | -0.07 | -0.14 | -0.08 | -0.10 | -0.09 | -0.10 | -0.12 | -0.16 | -0.13 |
| | Bottom | -0.08 | -0.10 | -0.05 | -0.03 | 0.16 | 0.06 | -0.08 | -0.10 | -0.05 | -0.11 | -0.11 | -0.05 | -0.12 | -0.15 | -0.12 |

Boskalis
Dredging & Marine Experts

| | Date | 2020-Jul-12 | 2020-Jul-13 | 2020-Jul-14 | 2020-Jul-15 | 2020-Jul-16 | 2020-Jul-17 | 2020-Jul-18 | 2020-Jul-19 | 2020-Jul-20 | 2020-Jul-21 | 2020-Jul-22 | 2020-Jul-23 | 2020-Jul-24 | 2020-Jul-25 | 2020-Jul-26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity |
| W2 | Surface | | -0.02 | -0.04 | 0.10 | 0.20 | 1.19 | | | | -0.04 | 0.98 | 0.15 | | 0.01 | 0.26 |
| | Mid-water | -0.09 | 0.02 | -0.07 | 0.16 | 0.16 | 1.31 | | | | 0.09 | 0.19 | 0.07 | | -0.02 | -0.11 |
| | Bottom | -0.05 | -0.07 | -0.02 | 0.25 | 0.34 | 0.99 | | | | 0.25 | 0.16 | 0.10 | | 0.08 | -0.08 |
| W5 | Surface | 0.09 | 0.83 | -0.13 | 0.19 | -0.13 | 0.17 | | | 0.36 | 0.53 | 0.61 | 0.31 | | 0.06 | 0.53 |
| | Mid-water | -0.02 | 0.14 | 0.09 | 0.02 | -0.09 | 0.09 | | | 0.44 | 0.73 | 0.41 | 0.14 | | 0.16 | 0.28 |
| | Bottom | 0.15 | 0.08 | -0.03 | 0.60 | -0.07 | 0.34 | | | 0.66 | 0.78 | 0.40 | 0.24 | | 0.24 | 0.33 |
| W7 | Surface | -0.12 | -0.11 | -0.17 | -0.16 | -0.10 | -0.19 | | | 0.19 | -0.08 | 0.20 | -0.05 | | -0.14 | -0.19 |
| | Mid-water | -0.13 | -0.16 | -0.15 | -0.18 | -0.13 | -0.21 | | | 0.06 | -0.10 | 0.18 | -0.12 | | -0.14 | -0.18 |
| | Bottom | -0.12 | -0.10 | -0.12 | -0.16 | -0.11 | -0.17 | | | 0.05 | -0.03 | 0.09 | -0.12 | | -0.13 | -0.19 |
| W10 | Surface | -0.05 | -0.17 | -0.18 | -0.14 | 0.05 | 0.03 | | | -0.04 | -0.06 | -0.01 | -0.11 | | -0.13 | -0.20 |
| | Mid-water | -0.04 | -0.19 | -0.18 | -0.16 | 0.04 | -0.14 | | | 0.00 | -0.08 | -0.01 | -0.11 | | -0.14 | -0.19 |
| | Bottom | -0.05 | -0.17 | -0.17 | -0.09 | 0.10 | -0.11 | | | 0.04 | -0.03 | -0.01 | -0.08 | | -0.16 | -0.17 |
| W11 | Surface | -0.13 | -0.05 | -0.07 | -0.12 | -0.03 | -0.02 | | | 0.00 | 0.00 | 0.06 | -0.15 | | -0.13 | -0.21 |
| | Mid-water | -0.12 | -0.19 | -0.08 | -0.11 | -0.01 | -0.13 | | | 0.00 | 0.00 | 0.03 | -0.13 | | -0.12 | -0.19 |
| | Bottom | -0.04 | -0.16 | -0.13 | -0.04 | 0.01 | -0.10 | | | -0.02 | 0.00 | 0.10 | -0.10 | | -0.13 | -0.16 |
| W14 | Surface | 0.18 | 0.08 | 0.07 | -0.02 | 0.04 | 3.16 | | | 0.74 | 0.82 | 0.98 | 0.35 | | 0.29 | 0.57 |
| | Mid-water | 0.16 | 0.48 | 0.15 | 0.18 | -0.01 | 0.19 | | | 0.90 | 0.86 | 1.30 | 0.97 | | 1.58 | 1.07 |
| | Bottom | 0.65 | 0.69 | 0.44 | 0.63 | 0.37 | 1.33 | | | 1.15 | 1.08 | 1.50 | 1.30 | | 2.64 | 0.41 |
| W15 | Surface | -0.06 | -0.08 | -0.08 | -0.13 | 0.04 | 0.04 | | | 0.29 | 0.04 | 0.18 | 0.14 | | -0.02 | -0.16 |
| | Mid-water | -0.06 | -0.07 | -0.11 | -0.13 | -0.01 | -0.03 | | | 0.20 | -0.01 | 0.19 | 0.12 | | 0.11 | -0.18 |
| | Bottom | -0.03 | -0.08 | -0.12 | -0.09 | 0.10 | -0.04 | | | 0.13 | 0.03 | 0.15 | 0.10 | | 0.17 | -0.15 |
| W16 | Surface | -0.14 | -0.16 | -0.14 | -0.05 | -0.01 | -0.07 | | | | 0.02 | 0.11 | 0.09 | | -0.06 | -0.09 |
| | Mid-water | -0.14 | -0.15 | -0.09 | 0.08 | 0.05 | 0.00 | | | | 0.05 | 0.16 | 0.06 | | -0.08 | -0.11 |
| | Bottom | -0.09 | -0.07 | 0.02 | 0.58 | 0.06 | 0.07 | | | | 0.01 | 0.16 | 0.07 | | -0.12 | -0.04 |
| W19 (Background | Surface | -0.14 | -0.18 | -0.17 | -0.19 | -0.13 | -0.17 | | | | -0.15 | -0.14 | -0.11 | | -0.15 | -0.19 |
| | Mid-water | -0.09 | -0.18 | -0.17 | -0.16 | -0.11 | -0.17 | | | | -0.10 | -0.11 | -0.07 | | -0.12 | -0.18 |
| | Bottom | 0.06 | -0.18 | -0.13 | -0.16 | -0.04 | -0.20 | | | | -0.10 | -0.08 | -0.07 | | -0.11 | -0.13 |
| W20 | Surface | -0.14 | 0.08 | -0.08 | -0.17 | -0.12 | 0.13 | | | | 0.61 | 0.37 | 0.03 | | 0.07 | -0.07 |
| | Mid-water | -0.09 | -0.04 | -0.14 | -0.15 | -0.12 | -0.10 | | | | 0.55 | 0.47 | 0.11 | | 0.09 | 0.05 |
| | Bottom | 0.06 | 0.10 | -0.11 | 0.06 | -0.12 | -0.03 | | | | 0.18 | 0.60 | 0.30 | | 0.12 | 0.19 |
| W25 | Surface | -0.13 | -0.19 | -0.12 | -0.09 | -0.08 | -0.17 | | | | 0.66 | -0.09 | 0.81 | | -0.10 | 0.03 |
| | Mid-water | -0.09 | -0.13 | -0.08 | -0.11 | 0.10 | -0.02 | | | | 1.12 | -0.06 | 0.91 | | -0.08 | -0.07 |
| | Bottom | -0.05 | 0.02 | -0.12 | -0.07 | 0.11 | -0.14 | | | | 2.00 | -0.08 | 0.82 | | -0.09 | 0.15 |
| W26 | Surface | -0.09 | -0.08 | -0.15 | -0.17 | 0.06 | -0.18 | | | | -0.05 | -0.07 | -0.12 | | 0.06 | -0.05 |
| | Mid-water | -0.08 | -0.07 | -0.15 | -0.17 | -0.13 | -0.17 | | | | -0.02 | -0.11 | -0.09 | | -0.01 | -0.07 |
| | Bottom | -0.07 | -0.11 | -0.16 | -0.15 | -0.13 | -0.16 | | | | 0.05 | -0.06 | -0.07 | | 0.05 | -0.06 |
| W27 (Background | Surface | -0.10 | -0.19 | -0.17 | -0.19 | -0.10 | -0.16 | | | | -0.08 | -0.10 | -0.11 | | -0.03 | -0.10 |
| | Mid-water | -0.10 | -0.17 | -0.17 | -0.18 | -0.13 | -0.15 | | | | -0.11 | -0.12 | -0.11 | | -0.01 | -0.12 |
| | Bottom | -0.07 | -0.17 | -0.17 | -0.17 | -0.12 | -0.14 | | | | -0.12 | -0.07 | -0.11 | | 0.05 | -0.15 |
| W36 | Surface | -0.11 | -0.17 | -0.07 | -0.14 | -0.11 | -0.14 | | | | 0.46 | 0.00 | -0.10 | | -0.05 | -0.05 |
| | Mid-water | -0.08 | -0.17 | -0.09 | -0.15 | -0.09 | -0.11 | | | | 0.39 | 0.11 | -0.06 | | -0.02 | 0.00 |
| | Bottom | 0.08 | -0.15 | -0.04 | -0.10 | -0.08 | -0.05 | | | | 0.26 | 0.12 | -0.03 | | 0.00 | 0.04 |
| W45 | Surface | -0.11 | -0.18 | -0.16 | -0.17 | -0.10 | -0.14 | | | | 0.06 | 0.02 | 0.00 | | -0.10 | -0.09 |
| | Mid-water | -0.06 | -0.17 | -0.14 | -0.16 | -0.12 | -0.14 | | | | 0.05 | 0.08 | 0.11 | | -0.04 | -0.01 |
| | Bottom | -0.05 | -0.14 | -0.15 | -0.16 | -0.08 | -0.13 | | | | 0.03 | -0.07 | 0.10 | | -0.03 | -0.05 |
| W46 | Surface | -0.01 | 0.10 | -0.15 | -0.19 | -0.08 | -0.15 | | | | 0.14 | 0.48 | 0.25 | | -0.03 | 0.00 |
| | Mid-water | | -0.02 | -0.15 | -0.18 | -0.07 | 0.04 | | | | 0.15 | 0.92 | 0.19 | | -0.02 | 0.02 |
| | Bottom | 0.06 | 0.04 | -0.12 | -0.15 | -0.08 | -0.14 | | | | 0.18 | 0.63 | 0.19 | | -0.06 | 0.02 |
| W47 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W51 | Surface | -0.11 | -0.13 | -0.09 | -0.05 | -0.05 | -0.15 | | | | 0.11 | -0.08 | -0.10 | | -0.11 | -0.14 |
| | Mid-water | -0.11 | -0.12 | -0.15 | -0.13 | -0.11 | -0.13 | | | | 0.14 | -0.03 | -0.06 | | -0.04 | -0.09 |
| | Bottom | -0.01 | -0.14 | -0.14 | -0.13 | -0.09 | -0.10 | | | | 0.15 | -0.07 | 0.02 | | -0.01 | -0.04 |

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| | Date | 2020-Jul-27 | 2020-Jul-28 | 2020-Jul-29 | 2020-Jul-30 | 2020-Jul-31 | 2020-Aug-01 | 2020-Aug-02 | 2020-Aug-03 | 2020-Aug-04 | 2020-Aug-05 | 2020-Aug-06 | 2020-Aug-07 | 2020-Aug-08 | 2020-Aug-09 | 2020-Aug-10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity |
| W2 | Surface | 3.38 | -0.11 | -0.09 | 1.22 | -0.02 | 1.65 | -0.04 | -0.10 | 0.21 | 0.44 | 0.24 | -0.03 | -0.13 | -0.19 | 1.34 |
| | Mid-water | 2.15 | -0.13 | -0.10 | 0.27 | -0.01 | 0.75 | -0.06 | -0.04 | -0.15 | 0.33 | 0.34 | -0.08 | -0.17 | -0.17 | 1.21 |
| | Bottom | 0.40 | -0.13 | -0.07 | 1.71 | 0.04 | 1.00 | -0.11 | 0.07 | -0.11 | 0.10 | 0.16 | -0.02 | -0.14 | -0.05 | 1.37 |
| W5 | Surface | 0.08 | -0.01 | 2.06 | 0.17 | 0.49 | -0.08 | -0.03 | 0.03 | 0.20 | 0.02 | 0.21 | 0.02 | 0.40 | 0.55 | 1.05 |
| | Mid-water | 0.09 | 0.04 | 0.50 | 0.23 | 0.26 | -0.22 | -0.12 | 0.24 | -0.10 | 0.17 | 0.29 | 0.04 | 0.04 | 0.52 | 0.60 |
| | Bottom | 0.33 | 0.22 | 0.45 | 0.27 | 0.58 | -0.22 | -0.08 | 0.48 | -0.08 | 0.17 | 0.40 | 0.23 | 0.85 | 0.70 | 0.86 |
| W7 | Surface | 0.15 | -0.16 | 0.47 | -0.10 | -0.12 | -0.24 | -0.17 | -0.10 | -0.15 | -0.22 | -0.23 | -0.23 | -0.24 | 0.50 | 0.39 |
| | Mid-water | -0.12 | -0.15 | 0.32 | -0.10 | -0.11 | -0.24 | -0.18 | -0.07 | -0.12 | -0.23 | -0.26 | -0.23 | -0.23 | -0.15 | 0.27 |
| | Bottom | -0.11 | -0.14 | 0.07 | -0.10 | -0.12 | -0.24 | -0.19 | 0.00 | -0.15 | -0.20 | -0.24 | -0.23 | -0.22 | -0.14 | 0.88 |
| W10 | Surface | -0.11 | -0.14 | -0.14 | -0.13 | -0.13 | -0.21 | -0.17 | -0.26 | -0.17 | -0.25 | -0.27 | -0.26 | -0.24 | 0.02 | 0.32 |
| | Mid-water | -0.15 | -0.15 | -0.12 | -0.11 | -0.12 | -0.20 | -0.19 | -0.24 | -0.18 | -0.23 | -0.28 | -0.26 | -0.22 | 0.12 | -0.01 |
| | Bottom | -0.14 | -0.14 | -0.08 | -0.10 | -0.09 | -0.22 | -0.16 | -0.20 | -0.17 | -0.20 | -0.26 | -0.26 | -0.24 | 0.12 | -0.21 |
| W11 | Surface | -0.11 | -0.12 | -0.07 | -0.10 | -0.13 | -0.19 | -0.18 | -0.11 | -0.17 | 0.42 | -0.30 | -0.15 | -0.25 | -0.08 | -0.06 |
| | Mid-water | -0.11 | -0.17 | -0.08 | -0.08 | -0.13 | -0.30 | -0.20 | -0.08 | -0.11 | 0.50 | -0.25 | -0.17 | -0.24 | 0.06 | -0.01 |
| | Bottom | -0.08 | -0.15 | -0.07 | -0.02 | -0.15 | -0.27 | -0.16 | -0.01 | -0.05 | 0.54 | -0.28 | -0.21 | -0.21 | 0.35 | -0.07 |
| W14 | Surface | 0.87 | 0.26 | 0.22 | 0.44 | 0.82 | 0.23 | 0.27 | 0.38 | 0.64 | 1.57 | 1.99 | 2.65 | 0.37 | 0.08 | 0.21 |
| | Mid-water | 0.36 | 0.61 | 0.47 | 0.62 | 0.78 | 0.16 | 0.41 | 0.30 | 1.14 | 0.18 | 1.94 | 2.54 | 0.54 | 0.15 | 0.92 |
| | Bottom | 1.39 | 1.89 | 0.65 | 0.77 | 0.53 | 0.37 | 0.47 | 0.75 | 1.25 | 0.54 | 3.13 | 3.35 | 0.82 | 0.74 | 2.73 |
| W15 | Surface | -0.03 | -0.05 | -0.08 | -0.04 | 0.05 | -0.21 | -0.11 | -0.16 | -0.14 | -0.24 | -0.24 | -0.20 | -0.18 | 0.40 | 0.34 |
| | Mid-water | -0.01 | 0.16 | 0.00 | -0.04 | 0.01 | -0.21 | -0.16 | -0.15 | -0.12 | -0.23 | -0.25 | -0.19 | -0.19 | 0.43 | 0.16 |
| | Bottom | 0.04 | 0.81 | 0.04 | -0.06 | -0.01 | -0.23 | -0.16 | -0.01 | -0.13 | -0.21 | -0.18 | -0.18 | -0.19 | 0.36 | 0.22 |
| W16 | Surface | -0.10 | -0.15 | -0.04 | -0.08 | -0.05 | -0.15 | -0.14 | -0.19 | -0.10 | 0.16 | -0.05 | -0.15 | -0.16 | 0.10 | 0.18 |
| | Mid-water | -0.11 | -0.14 | -0.04 | -0.08 | -0.08 | -0.05 | -0.15 | -0.18 | -0.11 | 0.22 | -0.05 | -0.10 | -0.19 | 0.13 | 0.69 |
| | Bottom | -0.09 | -0.15 | -0.01 | -0.06 | -0.04 | -0.08 | -0.05 | -0.10 | -0.07 | 0.27 | 0.01 | -0.13 | -0.19 | 0.19 | 0.79 |
| W19 (Background | Surface | -0.15 | -0.19 | -0.16 | -0.11 | | -0.24 | -0.19 | -0.18 | -0.17 | -0.23 | -0.25 | -0.26 | -0.16 | -0.23 | -0.23 |
| | Mid-water | -0.14 | -0.17 | -0.12 | -0.11 | | -0.18 | -0.20 | -0.20 | -0.16 | -0.19 | -0.22 | -0.25 | -0.16 | -0.20 | -0.24 |
| | Bottom | -0.13 | -0.15 | -0.15 | -0.10 | | -0.22 | -0.19 | -0.17 | 0.22 | -0.20 | -0.22 | -0.23 | -0.19 | -0.20 | -0.24 |
| W20 | Surface | -0.05 | -0.12 | 0.15 | -0.08 | | 0.02 | -0.05 | -0.10 | -0.16 | -0.12 | -0.14 | -0.23 | -0.11 | -0.07 | -0.19 |
| | Mid-water | -0.07 | -0.10 | 0.30 | -0.07 | | -0.05 | -0.04 | -0.06 | -0.15 | -0.10 | -0.15 | -0.23 | 0.01 | -0.03 | -0.20 |
| | Bottom | 0.04 | -0.06 | 0.42 | -0.05 | | 0.00 | 0.19 | -0.03 | -0.07 | -0.07 | -0.10 | -0.17 | -0.01 | -0.06 | -0.17 |
| W25 | Surface | -0.08 | -0.15 | -0.09 | -0.09 | | -0.04 | -0.10 | -0.16 | -0.19 | -0.04 | -0.23 | -0.21 | -0.20 | -0.14 | 0.33 |
| | Mid-water | -0.04 | -0.14 | -0.09 | -0.08 | | 0.32 | -0.01 | -0.10 | -0.18 | 0.61 | -0.23 | -0.19 | -0.17 | 0.04 | -0.06 |
| | Bottom | 0.01 | -0.13 | -0.02 | -0.06 | | 0.31 | 0.03 | -0.05 | -0.15 | 1.22 | -0.19 | -0.16 | -0.21 | 0.14 | -0.15 |
| W26 | Surface | -0.09 | -0.04 | 0.01 | -0.02 | | -0.22 | -0.14 | -0.21 | -0.05 | -0.17 | -0.13 | 0.12 | -0.14 | -0.11 | -0.26 |
| | Mid-water | -0.07 | -0.03 | -0.03 | -0.02 | | -0.22 | -0.19 | -0.18 | -0.12 | -0.18 | -0.16 | 0.14 | -0.17 | -0.11 | -0.26 |
| | Bottom | -0.08 | 0.01 | 0.00 | 0.05 | | -0.20 | -0.18 | -0.22 | -0.16 | -0.16 | -0.15 | 0.16 | -0.17 | -0.15 | -0.24 |
| W27 (Background | Surface | -0.11 | -0.05 | -0.02 | -0.01 | | -0.25 | -0.04 | 0.04 | -0.16 | -0.19 | -0.22 | 0.02 | -0.16 | -0.13 | -0.22 |
| | Mid-water | -0.12 | -0.04 | -0.02 | 0.00 | | -0.24 | -0.07 | -0.11 | -0.12 | -0.18 | -0.18 | -0.02 | -0.18 | -0.21 | -0.25 |
| | Bottom | -0.12 | -0.05 | 0.00 | -0.03 | | -0.24 | -0.11 | -0.21 | -0.14 | -0.12 | -0.18 | -0.15 | -0.13 | -0.21 | -0.24 |
| W36 | Surface | -0.06 | 0.18 | 0.09 | -0.06 | -0.06 | -0.26 | -0.12 | -0.14 | -0.12 | -0.16 | 0.04 | 0.03 | -0.04 | 0.01 | -0.12 |
| | Mid-water | -0.08 | 0.15 | 0.14 | -0.04 | -0.07 | -0.28 | -0.11 | -0.13 | -0.06 | -0.08 | 0.05 | 0.32 | 0.01 | 0.02 | -0.10 |
| | Bottom | -0.11 | 0.18 | 0.17 | -0.04 | -0.09 | -0.26 | -0.07 | -0.12 | -0.01 | -0.14 | -0.01 | 0.19 | 0.03 | 0.10 | -0.12 |
| W45 | Surface | -0.03 | -0.03 | 0.11 | 0.09 | | 0.14 | -0.09 | -0.04 | -0.06 | -0.05 | -0.01 | -0.13 | 0.05 | -0.03 | -0.18 |
| | Mid-water | -0.02 | -0.14 | 0.21 | 0.09 | | -0.02 | -0.01 | 0.02 | -0.11 | 0.05 | 0.04 | -0.07 | -0.05 | -0.03 | -0.18 |
| | Bottom | -0.04 | -0.11 | 0.25 | 0.00 | | -0.08 | -0.10 | 0.17 | -0.03 | -0.02 | 0.06 | -0.03 | -0.08 | 0.05 | 0.07 |
| W46 | Surface | -0.08 | -0.15 | -0.08 | 0.02 | | 0.05 | -0.12 | -0.13 | -0.18 | -0.08 | -0.06 | -0.21 | -0.02 | -0.10 | -0.12 |
| | Mid-water | -0.09 | -0.15 | -0.08 | 0.08 | | 0.05 | -0.09 | -0.11 | -0.10 | -0.05 | -0.10 | -0.20 | 0.16 | -0.10 | -0.17 |
| | Bottom | -0.09 | -0.11 | -0.05 | 0.36 | | 0.03 | -0.09 | -0.04 | 0.09 | 0.00 | 0.01 | -0.15 | 0.03 | -0.09 | -0.17 |
| W47 | Surface | | | | | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | | | | | |
| W51 | Surface | -0.02 | -0.17 | -0.08 | -0.07 | | -0.16 | 0.03 | -0.12 | -0.18 | -0.20 | -0.15 | -0.20 | -0.18 | -0.08 | 0.15 |
| | Mid-water | 0.00 | -0.13 | -0.07 | -0.07 | | -0.08 | -0.07 | -0.15 | -0.12 | -0.16 | -0.16 | -0.16 | -0.12 | -0.10 | -0.20 |
| | Bottom | -0.03 | -0.15 | -0.03 | -0.06 | | 0.06 | -0.02 | -0.09 | -0.06 | -0.17 | -0.13 | -0.13 | -0.03 | -0.12 | -0.22 |

Boskalis
Dredging & Marine Experts

| | Date | 2020-Aug-11 | 2020-Aug-12 | 2020-Aug-13 | 2020-Aug-14 | 2020-Aug-15 | 2020-Aug-16 | 2020-Aug-17 | 2020-Aug-18 | 2020-Aug-19 | 2020-Aug-20 | 2020-Aug-21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity | Turbidity |
| W2 | Surface | 1.47 | 0.85 | -0.17 | 0.07 | -0.07 | 1.07 | 0.12 | -0.12 | 0.42 | -0.24 | 0.19 |
| | Mid-water | -0.19 | 1.00 | -0.13 | -0.17 | -0.02 | 0.18 | 0.44 | -0.01 | 0.13 | -0.20 | 0.13 |
| | Bottom | -0.16 | 0.90 | 0.66 | 0.11 | -0.01 | 0.29 | 0.59 | 0.16 | 0.04 | -0.06 | 0.25 |
| W5 | Surface | 0.44 | 0.16 | 1.06 | 0.14 | -0.13 | 0.26 | 0.54 | 0.37 | -0.14 | -0.05 | -0.19 |
| | Mid-water | 0.12 | -0.07 | 0.20 | 0.58 | -0.20 | 0.54 | 0.15 | 1.08 | -0.09 | -0.07 | 0.00 |
| | Bottom | 1.20 | 0.09 | 1.79 | 1.07 | -0.14 | 3.58 | 0.89 | 1.27 | 0.11 | -0.05 | 0.24 |
| W7 | Surface | -0.25 | -0.28 | -0.11 | -0.30 | -0.27 | -0.23 | -0.06 | 0.03 | -0.21 | -0.25 | -0.27 |
| | Mid-water | -0.23 | -0.26 | -0.15 | -0.27 | -0.26 | -0.24 | -0.05 | -0.05 | -0.20 | -0.18 | -0.28 |
| | Bottom | -0.25 | -0.25 | -0.20 | -0.28 | -0.27 | -0.21 | -0.10 | -0.02 | -0.14 | -0.20 | -0.26 |
| W10 | Surface | 0.04 | -0.25 | -0.04 | -0.29 | 0.39 | -0.10 | -0.03 | -0.15 | -0.22 | -0.26 | -0.19 |
| | Mid-water | -0.12 | -0.27 | -0.22 | -0.28 | -0.29 | -0.07 | -0.03 | -0.17 | -0.14 | -0.23 | -0.19 |
| | Bottom | -0.14 | -0.26 | -0.23 | -0.27 | -0.28 | 0.02 | -0.09 | -0.11 | -0.20 | -0.17 | -0.21 |
| W11 | Surface | -0.05 | -0.01 | -0.11 | -0.29 | -0.21 | -0.23 | -0.17 | -0.08 | -0.23 | -0.23 | -0.14 |
| | Mid-water | -0.16 | -0.02 | -0.14 | -0.27 | -0.22 | -0.19 | -0.19 | -0.03 | -0.23 | -0.24 | -0.12 |
| | Bottom | -0.18 | 0.07 | -0.23 | -0.27 | -0.25 | -0.18 | 0.01 | 0.03 | -0.25 | -0.22 | -0.11 |
| W14 | Surface | 0.44 | 0.63 | 3.84 | 0.43 | 0.98 | 0.72 | 0.12 | 0.56 | 0.35 | 0.12 | 0.68 |
| | Mid-water | 2.32 | 1.32 | 3.13 | 2.93 | 0.40 | 1.47 | 1.42 | 2.44 | 0.52 | 0.18 | 0.64 |
| | Bottom | 4.58 | 0.63 | 1.00 | 1.91 | 0.56 | 0.86 | 3.22 | 4.35 | 4.25 | 0.17 | 0.25 |
| W15 | Surface | 0.99 | -0.11 | -0.15 | -0.17 | -0.17 | -0.25 | 0.15 | -0.13 | -0.15 | -0.13 | -0.13 |
| | Mid-water | 1.13 | -0.04 | -0.13 | -0.11 | -0.17 | -0.26 | 0.11 | 0.07 | -0.08 | -0.15 | -0.14 |
| | Bottom | 1.30 | -0.10 | -0.13 | -0.05 | -0.21 | -0.22 | -0.06 | -0.04 | -0.21 | -0.11 | -0.09 |
| W16 | Surface | -0.14 | 0.30 | -0.18 | -0.24 | -0.02 | 0.16 | -0.04 | 0.01 | -0.11 | -0.23 | -0.24 |
| | Mid-water | -0.23 | 0.72 | -0.11 | -0.20 | 0.00 | 0.19 | 0.20 | -0.07 | -0.15 | -0.24 | -0.20 |
| | Bottom | -0.21 | 0.81 | 0.11 | 0.00 | 0.06 | 0.27 | 0.44 | -0.07 | -0.14 | -0.24 | -0.20 |
| W19 (Background | Surface | -0.25 | -0.26 | -0.27 | -0.30 | -0.28 | -0.26 | -0.25 | -0.27 | -0.26 | -0.20 | -0.18 |
| | Mid-water | -0.23 | -0.22 | -0.26 | -0.29 | -0.27 | -0.24 | -0.25 | -0.27 | -0.27 | -0.19 | -0.17 |
| | Bottom | -0.23 | -0.23 | -0.28 | -0.29 | -0.24 | -0.24 | -0.23 | -0.26 | -0.24 | -0.17 | -0.15 |
| W20 | Surface | 0.31 | -0.02 | -0.07 | -0.24 | 0.02 | -0.05 | -0.06 | 0.09 | 0.54 | 0.26 | -0.23 |
| | Mid-water | 0.15 | -0.06 | -0.07 | -0.28 | -0.17 | 0.09 | -0.08 | -0.09 | 0.89 | 1.20 | -0.14 |
| | Bottom | 0.32 | -0.06 | -0.07 | -0.08 | -0.08 | 0.17 | -0.08 | -0.05 | 1.18 | 1.38 | 0.01 |
| W25 | Surface | -0.20 | -0.23 | -0.20 | -0.26 | -0.15 | -0.17 | -0.17 | -0.24 | -0.20 | -0.19 | -0.24 |
| | Mid-water | -0.21 | -0.11 | -0.14 | -0.27 | -0.02 | -0.21 | 0.25 | -0.20 | -0.26 | -0.06 | -0.19 |
| | Bottom | -0.19 | -0.04 | -0.05 | -0.27 | 0.01 | -0.22 | 1.22 | -0.16 | -0.27 | 0.16 | -0.10 |
| W26 | Surface | -0.23 | -0.26 | -0.29 | -0.28 | -0.26 | -0.24 | -0.20 | -0.24 | -0.25 | -0.20 | -0.23 |
| | Mid-water | -0.22 | -0.22 | -0.27 | -0.30 | -0.29 | -0.23 | -0.22 | -0.25 | -0.24 | -0.22 | -0.24 |
| | Bottom | -0.23 | -0.22 | -0.26 | -0.25 | -0.28 | -0.22 | -0.22 | -0.24 | -0.24 | -0.20 | -0.24 |
| W27 (Background | Surface | -0.21 | -0.25 | -0.28 | -0.30 | -0.29 | -0.23 | -0.22 | -0.28 | -0.26 | -0.21 | -0.25 |
| | Mid-water | -0.23 | -0.25 | -0.28 | -0.28 | -0.30 | -0.22 | -0.22 | -0.26 | -0.26 | -0.21 | -0.25 |
| | Bottom | -0.23 | -0.16 | -0.28 | -0.28 | -0.28 | -0.24 | -0.22 | -0.25 | -0.24 | -0.19 | -0.26 |
| W36 | Surface | 0.19 | -0.25 | -0.15 | -0.26 | -0.10 | 0.24 | 0.03 | -0.12 | -0.15 | -0.12 | -0.13 |
| | Mid-water | -0.09 | -0.22 | -0.19 | -0.25 | -0.11 | 0.08 | 0.21 | 0.33 | -0.12 | -0.16 | -0.01 |
| | Bottom | -0.09 | -0.15 | -0.17 | -0.20 | -0.04 | 0.07 | 0.10 | 0.76 | -0.14 | -0.16 | -0.11 |
| W45 | Surface | 0.49 | -0.18 | -0.13 | -0.29 | -0.26 | 0.24 | -0.19 | -0.05 | -0.26 | 0.00 | -0.21 |
| | Mid-water | 0.24 | -0.22 | -0.01 | -0.26 | -0.10 | 1.06 | -0.20 | 0.18 | -0.23 | -0.04 | -0.19 |
| | Bottom | -0.04 | -0.21 | 0.01 | -0.16 | 0.83 | 1.75 | -0.14 | -0.05 | 0.10 | -0.16 | -0.18 |
| W46 | Surface | -0.17 | -0.18 | -0.15 | -0.16 | -0.24 | -0.06 | -0.18 | -0.20 | -0.19 | -0.15 | -0.24 |
| | Mid-water | -0.16 | -0.13 | 0.24 | -0.24 | -0.16 | -0.16 | -0.18 | -0.20 | -0.16 | -0.09 | -0.20 |
| | Bottom | -0.10 | -0.12 | 0.74 | 0.05 | -0.12 | -0.14 | -0.12 | -0.18 | 0.16 | -0.01 | -0.14 |
| W47 | Surface | | | | | | | | | | | |
| | Mid-water | | | | | | | | | | | |
| | Bottom | | | | | | | | | | | |
| W51 | Surface | -0.25 | -0.25 | -0.20 | -0.23 | -0.13 | -0.23 | -0.23 | -0.24 | -0.27 | -0.21 | -0.23 |
| | Mid-water | -0.22 | -0.17 | -0.26 | -0.27 | -0.26 | -0.22 | -0.18 | -0.23 | -0.27 | -0.20 | -0.08 |
| | Bottom | 0.15 | -0.17 | -0.24 | -0.28 | -0.25 | -0.22 | -0.06 | -0.24 | -0.19 | -0.13 | -0.04 |

## APPENDIX 2 – SPECIFICATIONS EUREKA WATER QUALITY PROBES

## Eureka's Hallmark Features

Reliable data is Eureka's Top Priority. We start with the best sensors on the market and finish with our famously simple user-interface.

Using the Manta is really, really easy. Plug the Manta into a USB port and see live Manta data a few seconds later. Most users teach themselves the Manta operating software in about 15 minutes, without reading the manual.

Why pay more to purchase a multiprobe AND pay more to maintain it? The Manta's modular architecture often saves you thousands of dollars in purchase costs, and our rebuildable reference electrode and long-life DO sensor save you as much as $600 in annual maintenance cost.

Excellent Customer Service is standard equipment. A human is always available to answer you call or email.

## New Features in the Manta+

Three-Year Warranty includes the pH sensor, reference electrode, and DO cap.

Event Triggering increases the frequency of data logging when a user-selected parameter changes by a certain amount over a certain time.

Digital Turbidity Sensor has built-in autoranging for excellent performance in near-zero FNU waters, with an upper range to 5000 FNU.

Calibration Stability Indicator tells you when your sensor is stable enough for calibration.

New Sensors include tryptophan/BOD, optical brighteners, bromide, calcium, and sodium ions, fDOM II, chlorophyll red, and transmissivity.

Other new features include: Custom Parameter, Calibration Stability Indicator, Copper-Gauze Antifouling Kit, Expanded Calibration Log, Raw Values, Aquarius™ Compatibility, Battery Voltage Indicator.


manta+
Trimeter
temperature
depth
+ any other single parameter
including flourometers
20
temp
pH
conductivity
optical DO
(optional depth or ORP)
25
temp
pH
conductivity
turbidity
30
temp
pH
conductivity
optical DO
(optional depth or ORP)
turbidity
35
40
small sensor options
sodium
ammonium
nitrate
chloride
TDG
medium sensor options
PAR
chlorophyll
blue-green algae
rhodamine
crude oil
refined oil
CDOM/FDOM
fluorescein dye
optical brighteners
tryptophan
temp
pH
conductivity
optical DO
+ turbidity
standard sensors on 35/40

# Products

## Trimeter - Three Parameters at the Lowest Possible Cost

Get all the features of a Manta, including top-grade sensors and simple software, in an instrument designed for economy. Each Trimeter employs one of any sensor that Eureka offers, plus optional temperature and depth sensors.


## A Data Display for Every Application and Budget

The AmphibianPlus is a waterproof, full-function Windows PDA incorporating the Manta user interface, with GPS and cell phone options.

The Bluetooth Battery powers your Manta, and lets you talk wirelessly to the Manta with any Bluetooth-equipped Android or Windows peripheral. You can save up to $1500 by using your own phone instead of a limited-purpose data display.

## One Job – One Instrument

The Manta family offers up to 12 sensors in one, integrated package.

Available sensors include temperature, optical DO, pH, ORP, conductivity, depth, level, turbidity, fluorometers including chlorophyll a, chlorophyll red, phycocyanin, phycoerythrin, fDOM, fDOM II, rhodamine, fluorescein, crude oil, refined fuels, optical brighteners, and tryptophan/BOD, CO2, ammonium, nitrate, sodium, calcium, bromide, chloride, TDG, PAR, dual PAR, and transmissivity.

## Field-Proven Methods to Minimize Fouling

The Extended Turbidity Brush cleans turbidity and other sensors, such as DO, chlorophyll, and BG algae.

The MiniCleaner is a stand-alone wiper system used when you don't have an Extended Turbidity Brush.

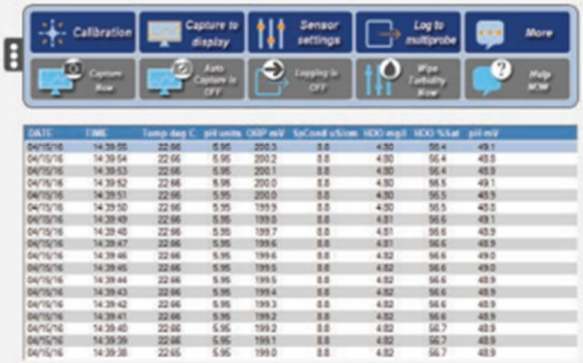
The Copper-Gauze Kit wraps the sensors in copper gauze that slowly dissolves, bathing the sensors with the copper ions that discourage biofouling. Copper gauze is superior to solid copper, which become ineffective once oxidized.

## The New Manta Manager

The new Manta Manager retains its predecessors' ease of use and adds new features like event triggering, calibration stability indicator, more QC information options in the permanent calibration log, single-point calibrations, visibility of "raw" sensor values, cut-and-paste of rolling data to MS Office documents, more help screens, a more powerful user-defined-parameter creator, and built-in instruction manual.

### Mobile Version


The new Manta Manager also offers a tablet and smartphone version with new "small screen" features like "swipeable" pages and large, high-contrast numbers for easier visibility in sunlight.




## Accessories for Every Application

Standard accessories include flow cells, copper-gauze anti-fouling kits, cable reels, SDI-12 converters, hard-sided cases, pipe kits to protect logging units in the field, weather stations, auxiliary batteries, auxiliary batteries with Bluetooth, and a full line of calibration standards including secondary calibration standards for fluorometers.

# Applications

lakes, rivers, ground water, storm water, estuaries, streams, ponds, near-shore oceanographic, process waters, waste waters, laboratory research

Site to Site Profiling

Process Monitoring

Unattended Logging

Ground Water

Telemetered Deployments

Buoy Deployments

## manta2 +™ Multiprobe Specifications

| | Trimeter | Manta+20 | Manta+25 | Manta+30 | Manta+35 | Manta+40 |
|---|---|---|---|---|---|---|
| Diameter | 1.85" | 1.95" | 2.45" | 2.95" | 3.5" | 4.00" |
| Length - w/o Battery Pack | 15.5" | 19" | 19" | 19" | 19" | 19" |
| - Add Internal Battery Pack | 23" | 27" | 27" | 27" | | |
| Weight - with IBP | 2.8 lbs | 3.4 lbs | 2.5 lbs | 5.8 lbs | 9.0 lbs | 10.0 lbs |
| - without battery | 2.2 lbs | - | - | - | - | - |
| Number of sensors | Any single sensor plus depth and temp option | Up to 6 | Up to 3 | Up to 7 | Up to 11 | Up to 13 |
| Battery Pack | 3 "D" cells | 2 "D" | 2 "D" | 8 "C" cells | 8 "C" cells | 8 "C" cells |
| Operating Temperature | -5 to 50 C | | | | | |
| Depth Rating | 200 m | | | | | |
| Communications | RS-232, SDI-12, USB or Bluetooth | | | | | |
| Sample Rate | 1 Hz | | | | | |
| Data Memory | >1,000,000 logged readings | | | | | |

## Amphibian2 Handheld Display

| | |
|---|---|
| Size | 3.6" W x 7.25" L x 1.5" D |
| Weight | 1.3 lbs |
| Operating System | Microsoft® Windows Embedded Handheld 6.5.3 |
| IP Rating | IP68 |
| Memory and Data Storage | 512MB RAM; 8 GB ash - > 8,000,000 logged readings |

## Sensor Specifications

| parameter | | range | resolution | accuracy | comments |
|---|---|---|---|---|---|
| temperature | water temperature | -5 to 50 C | 0.01 | 0.1 | never needs calibration |
| pH/ORP | pH | 0 to 14 units | 0.1 | 0.1 within 10 C of calibration, 0.2 otherwise | refillable reference electrode; corrected for temperature; typical sensor life > 4 years |
| | ORP | -999 to 999 mV | 1 | 20 mV | platinum ORP sensor is combined with pH sensor |
| turbidity | turbidity | 0 to 40 FNU | 4 digits with maximum of two decimals | 2% of reading or 0.2 | compensated for temperature; filtered for non-turbidity spikes; includes wiper to clean the optics |
| | | 40-400 FNU | | 2% of reading or 0.2 | |
| | | 400-5000 FNU | | 2% of range | |
| | transmissivity | 0 to 100% transmission | 4 digits | linearity of 0.999[4] | WETLabs SeaStar; mounts alongside the Manta |
| optical dissolved oxygen | concentration | 0 to 20 mg/l | 0.01 | 0.1 | compensated for temperature and salinity; EPA approved "lifetime" luminescence method; typical sensor cap life > 4 years |
| | | 20 to 30 mg/l | 0.01 | 0.15 | |
| | | 30 to 50 mg/l | 0.1 | 5% | |
| | % saturation | 0 to 500% saturation | 0.1% | corresponds with the accuracy of the concentration reading | |
| conductivity | specific conductance, µS/cm | 0 to 5000 µS/cm | 4 digits with maximum of one decimal | ±0.5% of reading ±0.001 | corrected for temperature; four easy-to-clean graphite electrodes; optional sensor provides ±0.5% of reading accuracy to 100 mS/cm. |
| | specific conductance, mS/cm | 0 to 10 mS/cm | | ±1% of reading ±0.001 | |
| | | 10 to 100 mS/cm | | 1% of reading | |
| | | 100 to 275 mS/cm | | 2% of reading | |
| | salinity | 0 to 70 PSS | 0.01 | 0.2 | calculated from specific conductance; PSS = Practical Salinity Scale which is roughly equivalent to ppt |
| | total dissolved solids (TDS) | 0 to 65 g/l | 0.1 | 5% of reading | calculated from specific conductance |
| pressure | depth | 0 to 25 m | 0.01 | 0.05 | compensated for temperature and salinity; 0.05 m out of 25 m is 2" out of 160 feet; 0.4 m out of 300 m is a football length out of two football fields |
| | | 0 to 300 m | | 0.4 | |
| | vented depth (level) | 0 to 10 m | 0.001 | 0.003m | compensated for temp, salinity, barometric pressure |
| | barometric pressure | 400 to 900 mm Hg | 0.1 | 1.5 | included with depth sensor |
| | total dissolved gas (TDG) | 400 to 1,400 mm Hg | 0.1 | 1 | compensated for temperature; maximum depth 15m |
| fluorometers | chlorophyll a - blue | 0 to 500µg/l | 6 digits with maximum of two decimals | linearity of 0.999[4] | highest-quality Turner Designs fluorometric sensors; fluorometers often require non-trivial calibration; custom optics available upon request |
| | chlorophyll a - red | 0 to 500µg/l | | | |
| | rhodamine dye | 0 to 1000 ppb | | | |
| | Phycocyanin (freshwater BGA) | 0 to 40,000 ppb | | | |
| | Phycoerythrin (marine BGA) | 0 to 750 ppb | | | |
| | CDOM/fDOM | 0 to 1250 or 0 to 5000 ppb | | | |
| | CDOM/fDOM, custom | 0 to 1250 or 0 to 5000 ppb | | | |
| | optical brighteners | 0 to 15,000 ppb | | | |
| | tryptophan | 0 to 20,000 ppb | | | |
| | fluorescein dye | 0 to 500 ppb | | | |
| | refined oil | 0 to 10,000pb | | | |
| | crude oil | 0 to 1500 ppb | | | |
| ion-selective electrodes (ISE's) | ammonium | 0 to 100 mg/l as nitrogen | 0.1 | 5% or 2 mg/l | corrected for ionic strength via conductivity readings; the accuracy specification relies on non-trivial maintenance practice and frequent calibration near the temperature of measurement; ammonium and nitrate require tip replacement every 3 - 6 months |
| | nitrate | 0 to 100 mg/l as nitrogen | | | |
| | chloride | 0 to 18,000 mg/l | | | |
| | sodium | 0 to 20,000 mg/l | | | |
| | calcium | 0 to 40,000 mg/l | | | |
| | bromide | 0 to 80,000 mg/l | | | |
| PAR | photometric PAR | 10,000 µmol/sm2 | 4 digits | 5% of reading | LiCor spherical sensor |

## Warranty

| | | | |
|---|---|---|---|
| Manta+ Multiprobe | 3 years * | Underwater cables | 2 years |
| Amphibian2 Handheld | 2 years | Bluetooth Module | 3 years |
| Optical DO Cap | 3 years | | |

FOR BEST ACCURACY, ALWAYS CALIBRATE NEAR THE ANTICIPATED FIELD READINGS, AND NEAR THE TEMPERATURE OF THE ANTICIPATED FIELD READINGS.

## About Us

Eureka was formed in 2002 by industry veterans who believed there was considerable room in the multiprobe market for improvements in technology and customer service. Eureka, an employee-owned partnership, includes the company's founder along with partners from both Europe and Asia with extensive history in the water quality industry.

Eureka Water Probes continues to provide innovative, reliable multiprobes backed by market-leading customer service. Designing and manufacturing the world's best multiprobes remains our sole focus.

Give us a call – we can make your data-collection easier, better and less expensive.

## Worldwide Distribution

Eureka Water Probes
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Tel +1.512-302-4333
www.waterprobes.com

For a complete list of our international partners, please see www.waterprobes.com/contact.

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