

Natural England Commissioned Report NECR301

Dover to Deal MCZ 2016 Survey Report

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Foreword

Natural England commission a range of reports from external contractors to provide evidence and advice to assist us in delivering our duties. The views in this report are those of the authors and do not necessarily represent those of Natural England.

Background

Following designation, Natural England started a baseline monitoring programme across all marine protected areas.

This report was commissioned as part of an inshore benthic marine survey of the Dover to Deal MCZ.

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Natural England Project Manager - James Highfield, Senior Specialist
James.Highfield@naturalengland.org.uk

Contractor - Mike Fraser and Jonny Easter, Environment Agency

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Further information

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Dover to Deal MCZ 2016 Survey Report

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Authors: Mike Fraser and Jonny Easter

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Dover to Deal MCZ 2016 Survey Report

Project Code: MB0129

Authors: Mike Fraser and Jonny Easter

Produced by:

Environment Agency
Estuarine and Coastal Monitoring & Assessment Service
Kingfisher House
Orton Goldhay
Peterborough
Cambridgeshire
PE2 5ZR

Email: enquiries@environment-agency.gov.uk

Website: www.environment-agency.gov.uk

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Matt Curtis Cefas Benthic Ecologist
Ben Green Natural England/Environment Agency Marine Ecology Technical Specialist

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1. Introduction

The Marine and Coastal Access Act 2009 requires the UK Government to create a coherent network of Marine Conservation Zones (MCZs) in British waters. MCZs will exist alongside other Marine Protected Areas (MPAs), including Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Sites of Special Scientific Interest (SSSIs) and Ramsar sites to help conserve marine biodiversity, in particular habitats and species of European and national importance.

Through Defra, and with written advice from the Statutory Nature Conservation Bodies* (SNCBs), four regional projects were established to identify potential MCZs within the UK EEZ. These projects were called Net Gain (North Sea), Balanced Seas (South East waters), Finding Sanctuary (South West waters) and the Irish Sea Conservation Zones (Irish Sea) (see <http://jncc.defra.gov.uk/mczmap> accessed 9th March 2017). They combined stakeholder consultation with existing scientific data to propose recommended MCZs in their region that would contribute to the overall network. The four projects reported in September 2011, each producing a 'final recommendations' report, which contained Site Assessment Documents (SADs) for each of the rMCZs. Following a report review by an independent scientific advisory panel, a programme of habitat verification surveys was commissioned by Defra to strengthen the scientific evidence base for some of the rMCZs. During the next two years, the programme was coordinated by Cefas and involved a range of service providers from both the public and private sector. The SNCBs considered the additional evidence and sent final site recommendations to the Environment Minister for formal designation.

On the 21st November 2013, the UK Government announced the designation of 27 MCZs in the first tranche. A further 23 MCZs were announced in the second tranche of designations on the 17th January 2016, which included Dover to Deal MCZ. The site has been designated to protect chalk and boulder habitats.

Following designation, Natural England started a baseline monitoring programme across all Tranche 1 and 2 MCZs, targeting specific features present both inside and outside each site boundary. The initial datasets gathered will be used to inform future monitoring and management of the sites.

*Natural England and the Joint Nature Conservation Committee (JNCC)

1.1 Site Description




The Dover to Deal MCZ is an inshore site adjacent to the Kent coast that covers an area of 10 km² (Figure 1). The site extends from the East Dover Harbour wall almost to Deal in the north. The MCZ was proposed by the Balanced Seas regional stakeholder project (Balanced Seas, 2011) and designated in January 2016.

Erosion of the chalk cliffs in the area has created boulders and flat areas at the base of the cliff that supports unique seaweed and animal communities, with the chalk foreshore at St Margaret's Bay having one of the richest algal communities in the area (Dover to Deal MCZ Factsheet, 2016). The site is also considered to be important for under boulder communities and provides an essential habitat for sea squirts, sponges and algae (Dover to Deal MCZ Factsheet, 2016). The designation of this site protects several habitats and species (Table 1); detailed site information can be found in the Dover to Deal MCZ Factsheet (Dover to Deal MCZ Factsheet, 2016).

Table 1. Subtidal protected features within the Dover to Deal MCZ (Dover to Deal MCZ Factsheet, 2016). (Management approach = Maintain in favourable condition). This monitoring survey focuses on the features shaded blue.

Feature	Protected Features	Current General Management Approach
Broadscale Habitat	Moderate energy infralittoral rock	Maintain
	Subtidal mixed sediments	Maintain
	Subtidal sand	Maintain
Habitat FOCI	Subtidal Chalk	Maintain
Species FOCI	Native Oyster (<i>Ostrea edulis</i>)	Maintain

Dover to Deal MCZ Benthic Survey 2016

-  Kent South WFD Coastal Water Body Boundary
-  Dover to Deal MCZ Boundary
-  Designated Marine Conservation Zones

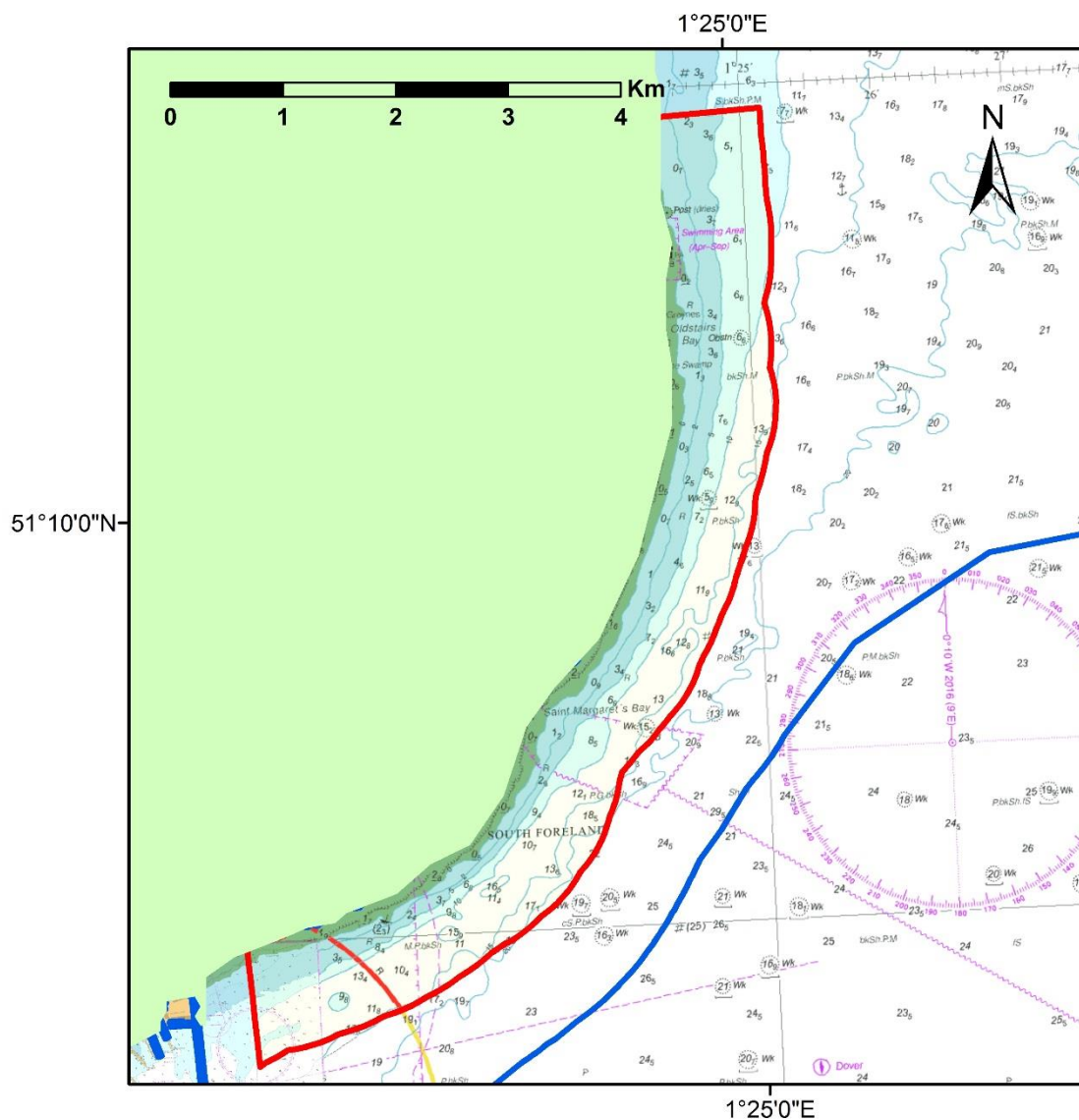


Figure 1. Location of the Dover to Deal Marine Conservation Zone (MCZ) in the context of other MCZs (designated and recommended) off the south coast of England.

1.2 Survey Aim and Objectives

Overall Survey Aim

To undertake a benthic survey of the designated subtidal broadscale habitat features of the Dover to Deal MCZ in order to obtain improved evidence, potentially ascribe condition and provide a baseline dataset which can then be used to detect change over time and support future monitoring.

Survey objectives

- To undertake a camera and grab survey of the designated features based on a Type 3 monitoring survey design (see JNCC/Cefas, 2017), to provide information on broadscale habitat distribution across the site.
- To provide incidental records of the species Features of Conservation Importance (FOCI) within the confines of the survey approach and platform utilised. It should be noted that this is a secondary objective of the survey.

1.3 Survey Team

The Dover to Deal MCZ was surveyed between the 17th and 25th of August 2016. The survey team comprised of four Environment Agency survey officers and two taxonomic specialists from APEM Ltd. as listed below. The coastal survey vessel *Solent Guardian*, staffed and operated by Briggs Marine (Figure 1, Annex 7.1) was used to conduct the survey work reported here.



Figure 2. Coastal survey vessel *Solent Guardian*, operated by Briggs Marine.

2. Survey Design and Methods

2.1 Survey Design and Planning Phase

The Dover to Deal MCZ survey of the protected infralittoral rock, subtidal sand and subtidal mixed sediment broadscale habitats was based on a Before-After-Control-Impact (BACI) sampling design. A combination of drop camera and sediment grabbing survey techniques was used to provide point records of the presence of the habitat and species Features of Conservation Importance (FOCI).

There was sufficient existing data from the 2012 verification survey (Godsell *et al.*, 2013) to run power analyses for infralittoral rock and mixed sediments habitats. These analyses indicated that twenty-six infralittoral rock and twenty-one mixed sediment samples were needed to detect a 20% change in species richness (for camera tows) and Shannon diversity index (for grab samples) with 80% power. Therefore, the survey was designed to meet these sample sizes both inside as well as outside the MCZ where possible. No management areas were specified to inform the BACI sampling design.

The broadscale habitat map generated by the 2012 verification survey (Godsell *et al.* 2013) was used to inform the target sampling locations (Figures 3 and 4). Within the MCZ boundary, fifty-three stations were chosen through a combination of random selection and re-sampling of the 2012 camera and grab stations (Table 2). Included with these were four stations plotted to sample the small area of subtidal sand present in the south-west corner of the MCZ.

Table 2. 2012 camera and grab stations to be resampled.

Sampling Gear	No. of stations to be resampled	2012 station numbers
Camera	7	51, 52, 53, 54, 63, 64, 67
Day grab	11	6, 8, 9, 10, 12, 16, 21, 22, 24, 26, 27

Outside the MCZ, thirty-five sampling stations were selected based on bathymetry and existing sediment data. The stations were plotted along the MCZ boundary and to the north of the site but not below 20 m depth contour (as marked on the Admiralty Chart) to keep within the same depth range as the stations located inside the MCZ.

Ten stations were identified for additional sediment contaminant analysis (heavy metals, polycyclic aromatic hydrocarbons, polychlorinated biphenyls, tributyltin), five inside and five outside the Dover to Deal MCZ boundary.

Marine specialists from the Environment Agency and Natural England reviewed the plan. The following hazards were identified from the UKHO Admiralty charts: underwater cables, shallow water depths and underwater obstructions. Sampling stations were relocated to avoid these hazards as far as possible. Grab station 14 was subsequently relocated as it was too close to an array of underwater cables.

A 'Notification of an exempt activity form' was submitted to the Marine Management Organisation prior to the survey being carried out.

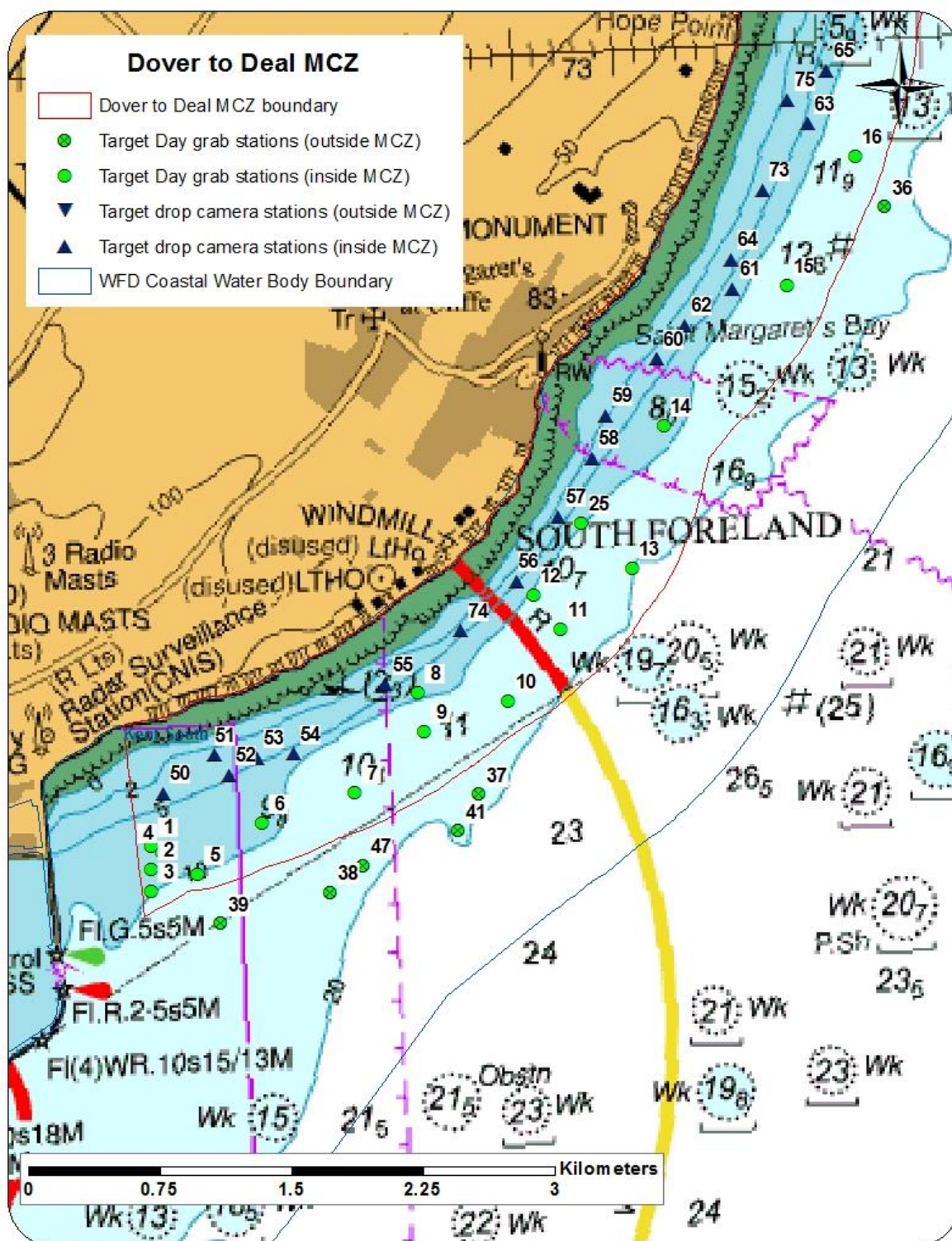


Figure 3. Dover to Deal MCZ 2016 survey plan (South).

2.2 Sample Collection Methodology

2.2.1 Habitat Characterisation and In-situ Benthic Epifauna Identification

Drop video camera equipment ([Annex 7.2.2](#)) was deployed in accordance with the MESH 'Recommended operating guidelines (ROG) for underwater video and photographic imaging techniques' (Coggan et al., 2007). The STR SeaSpyder camera system was deployed from the stern of the survey vessel, as shown in [Figure 5](#). Real time navigation data acquisition and manual position fixing when the gear contacted the seabed was captured via Trimble® HYDROpro™ software and logged by the survey officer. The mid-point of the vessel's stern gantry was used as the default offset for position fixing (see [Annex 7.2.1](#) for further details). Video files and digital still images were transmitted via the sea cable to be captured and saved directly to a computer in the survey cabin. The video footage was annotated with time and position using a GPS (SIMRAD MX512 DGPS) referenced video overlay (uncorrected position data). Images of the seabed were captured approximately every 10 to 15 metres over a distance of > 150 metres. Extra photographs were taken in heterogeneous areas of BSH and if particular habitat or species FOCI were observed. If a BSH habitat boundary was detected towards the end of a tow, the camera deployment was extended to confirm the change. The drop frame depth was controlled via a winch operator receiving instructions from the survey cabin. For further deployment details please see the 'EA underwater video procedure version 2.2' in [Annex 7.3](#).



Figure 5. STR SeaSpyder drop camera system being deployed from the stern of the coastal survey vessel.

During each drop camera deployment a member of the survey team continuously monitored the real-time video feed, recording general station notes, habitat information and fauna observations (please see [Annex 7.5](#) for a worked example of the video logsheet).

2.2.2 Broadscale Habitat Ground Truthing

A Day grab (Figure 6), with a sampling area of 0.1 m² was deployed from the stern gantry of the survey vessel to recover sediment from the seabed, as described in the Environment Agency Water Framework Directive (WFD) operational instructions 104_10 (2012) and 009_07 (2014). Sampling positions were recorded (fixed) using Hydropro data acquisition software when the gear contacted the seabed. The mid-point of the vessel's stern gantry was used as the default offset for position fixing (see Annex 7.2.1 for further details).

The EA WFD sampling methodology required two similar samples; the first was used to obtain a fauna sample (minimum depth of 5 cm in sand habitat and 7 cm in mud habitat) and the second solely to obtain a sub-sample for particle size analysis.

The sample was also inspected for a Redox Potential Discontinuity (RPD) or 'black layer', if present, the depth below the surface was recorded. The faunal sample was then processed, by washing over a sieve (1.0 mm mesh). The retained material was photographed on the sieve and preserved in a buffered 8 % formaldehyde solution for transfer ashore to a specialist laboratory for analysis. Further grab attempts were made to acquire a second sample containing similar material to the first (grabs with dissimilar material were discarded). A full depth-integrated core of sediment (approx. volume of 500 ml) was taken from the second sample for particle size analysis.

Material was collected for contaminant analyses following the methodology detailed in the Environment Agency operational instruction 10_01 (2007). Surface scrapes (i.e. the recently deposited sediment) were removed from each grab to a maximum depth of 1 cm (avoiding the anoxic layer). A metal scoop was used to collect material for organic contaminant analyses and a plastic scoop for heavy metals. The remaining material was then discarded. The top 1 cm was used as this provides a record of the most recent contaminant levels deposited in the sediment. All samples were stored frozen at -20°C after collection.

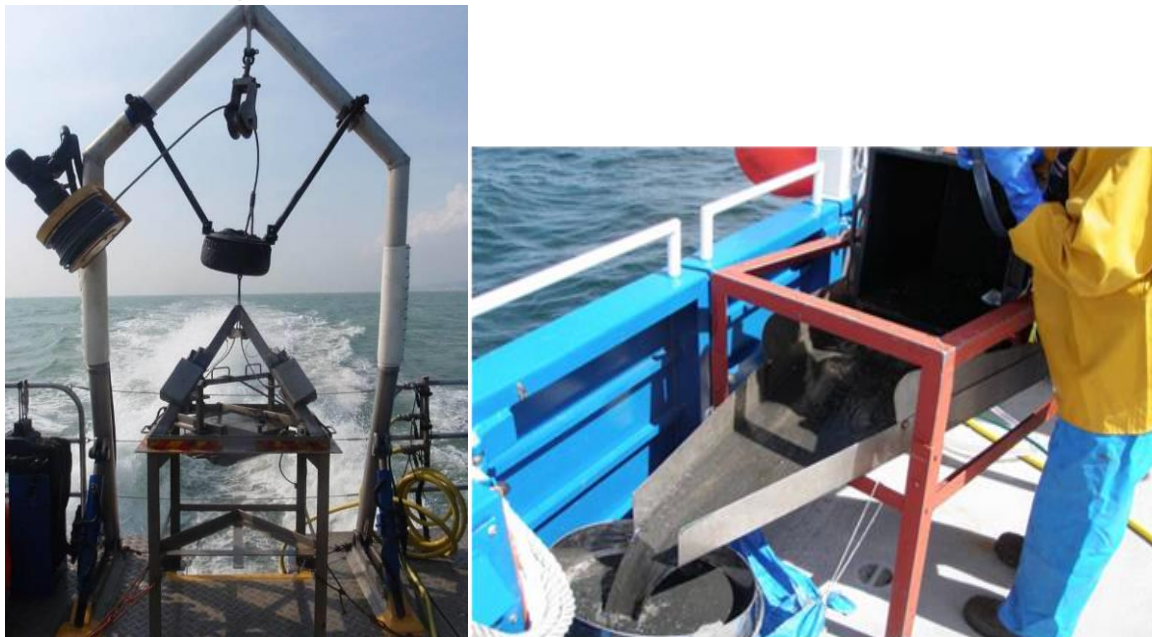


Figure 6. Day grab (left), and equipment for sieving benthic fauna samples (right).

3. Survey Narrative

The Dover to Deal MCZ survey was completed between the 17th and 25th August, 2016. Environment Agency Marine Monitoring Officers mobilised to Dover Marina on the 16th August and prepared the coastal survey vessel (CSV) *Solent Guardian* for camera survey operations. Following a vessel safety briefing for all staff on the morning of the 17th August and a test deployment of the equipment, the vessel departed Dover Marina at 07:00 UTC to conduct camera survey operations in the Dover to Folkestone MCZ. Camera surveying commenced in the Dover to Deal (DOVD) MCZ at 15:00 UTC. Six stations were surveyed within the DOVD MCZ, before the vessel returned to Dover Marina at 16:45 UTC. Survey operations continued on the 18th August 2016, with *Solent Guardian* leaving Dover Marina at 06:53 UTC, surveying 28 stations and returning at 14:00 UTC. Eight stations outside the northern boundary of the MCZ were abandoned due to the very poor visibility underwater. The camera system was removed from the vessel and the Day grab was installed.

Following a change in personnel and a toolbox talk on the use of the Day grab, surveying began on the 19th August in the Dover to Folkestone MCZ. Survey operations resumed in the Dover to Deal MCZ on the 24th August after three down-weather days and another full day of benthic sampling in the Dover to Folkestone MCZ. After leaving Dover Marina at 08:00 UTC, 36 stations were attempted, with viable samples for particle size (PSA) and infauna analyses collected at 19 stations and samples for PSA only at 4 stations. At stations DOVD18 and DOVD24, additional material was retained for sediment contaminants analyses.

The next day *Solent Guardian* departed Dover Marina at 06:30 UTC, reaching the first station in the Dover to Deal MCZ at 07:00 UTC. Throughout the morning the team surveyed 12 stations, however the substratum present proved challenging. Only two stations yielded viable samples for particle size and infauna community analyses. At four stations the volume of sediment recovered was sufficient only for the collection particle size samples; the remaining six stations were discarded. At stations DOVD1 and DOVD2, additional material was retained for sediment contaminants analyses. After returning to Dover Marina for a personnel changeover, three new stations (DOVD90, 91 and 92) were added to the plan as a number of the original stations had been discarded. PSA and infaunal samples were successfully obtained from all three. Time allowed for further attempts at five stations with PSA samples collected from two. Survey activity ceased at 16:45 UTC. The vessel docked in Dover Marina where the samples were collected for transport to the EA storage facility in Brampton.

Between the 17th and the 25th August 2016, the Dover to Deal MCZ survey took four 'on-task' days to complete. A detailed progress report for each survey day can be found in [Annex 7.6](#).

4. Data Acquisition

4.1 Seabed Images

Video footage and digital photographs of the seabed were collected for broadscale habitat characterisation at thirty-two stations inside and outside the Dover to Deal MCZ boundary (see [Figures 8](#) and [Figure 8](#) for an overview of the drop camera survey). Where possible, a preliminary field assessment of the sediment typology was carried out for each station using the method described in Section 2.3. Epifauna observations were also recorded. Due to very poor visibility (see Annex 7.4) eight stations outside of the northern boundary of MCZ were abandoned. Note that sites DOVD68 and DOVD69 were relocated due to fishing gear at the target locations. Additionally, stations DOVD53, DOVD54 and DOVD60 were visited at different stages of the tidal cycle to see if the visibility improved.

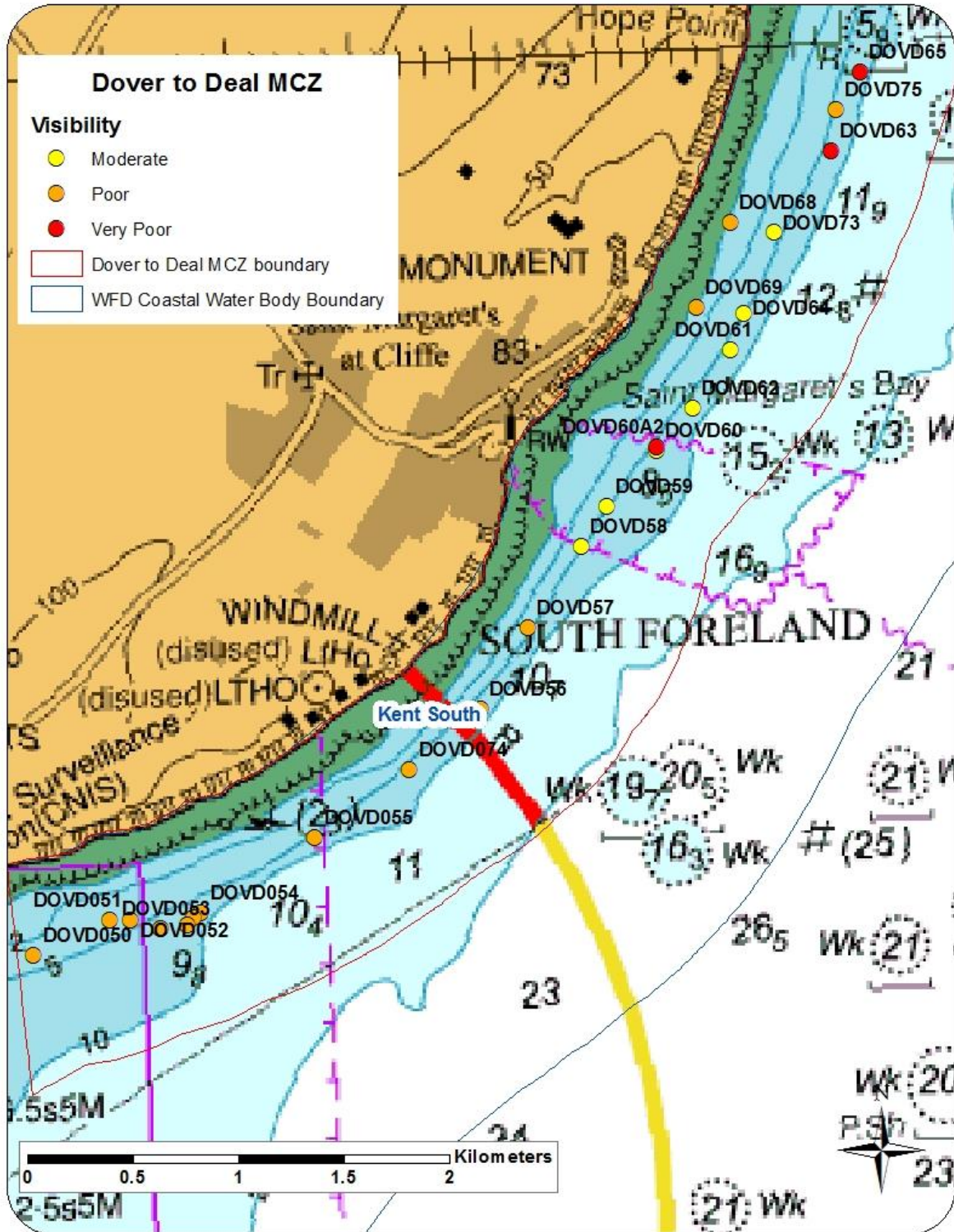


Figure 7. Underwater visibility encountered during the Dover to Deal (South) MCZ 2016 survey.

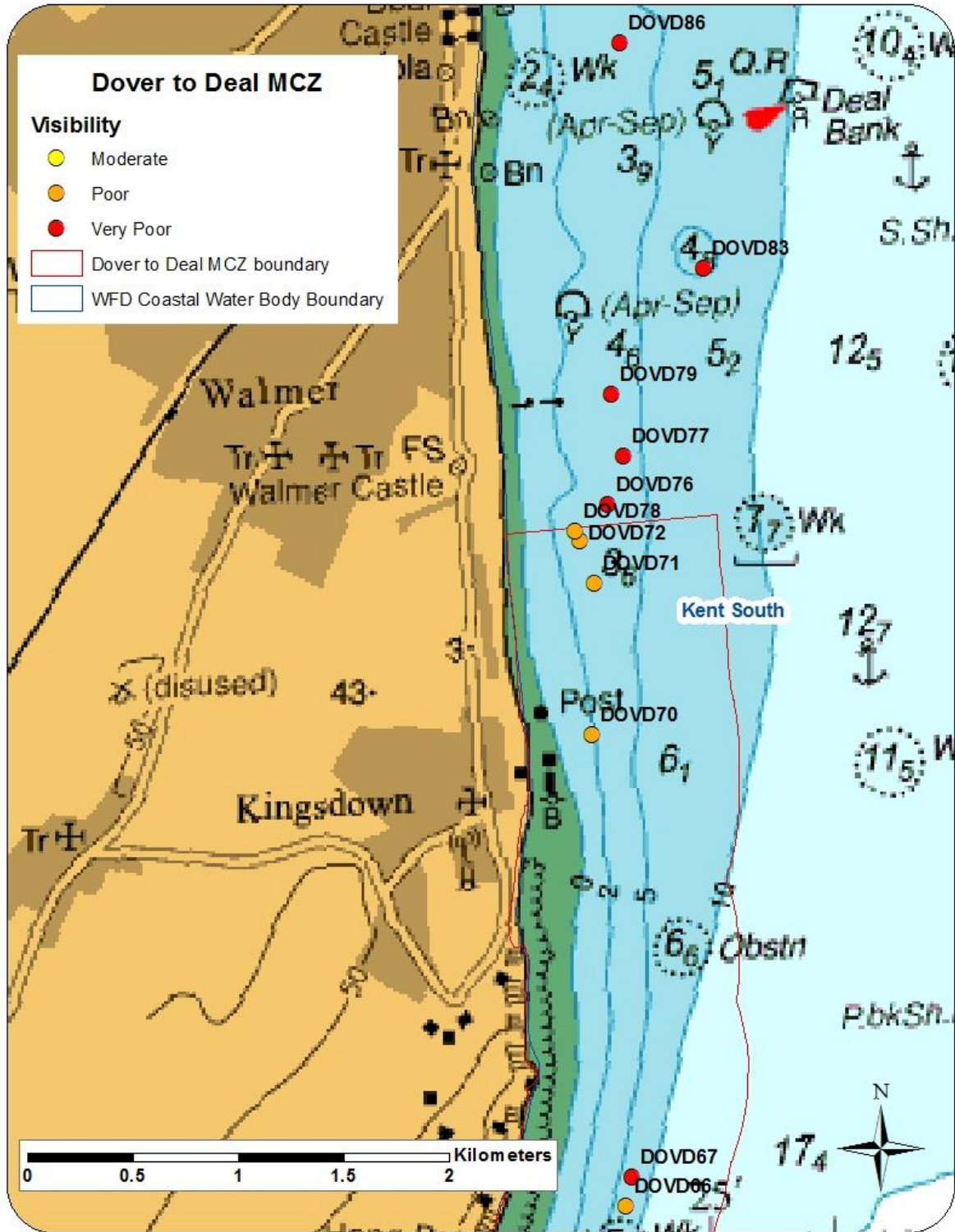


Figure 8. Underwater visibility encountered during the Dover to Deal (North) MCZ 2016 survey.

4.2 Sediment Samples

Viable grab samples for both infaunal and particle size analyses (PSA) were collected at 21 stations, using a 0.1m² Day grab (Figures 10 and 11). At eight stations, the quantity of sediment collected was only sufficient for PSA. Four stations were also successfully sampled for sediment contaminant analysis (DOVD1, 2, 18 and 24). The samples were photographed before and after the on-board processing phase.

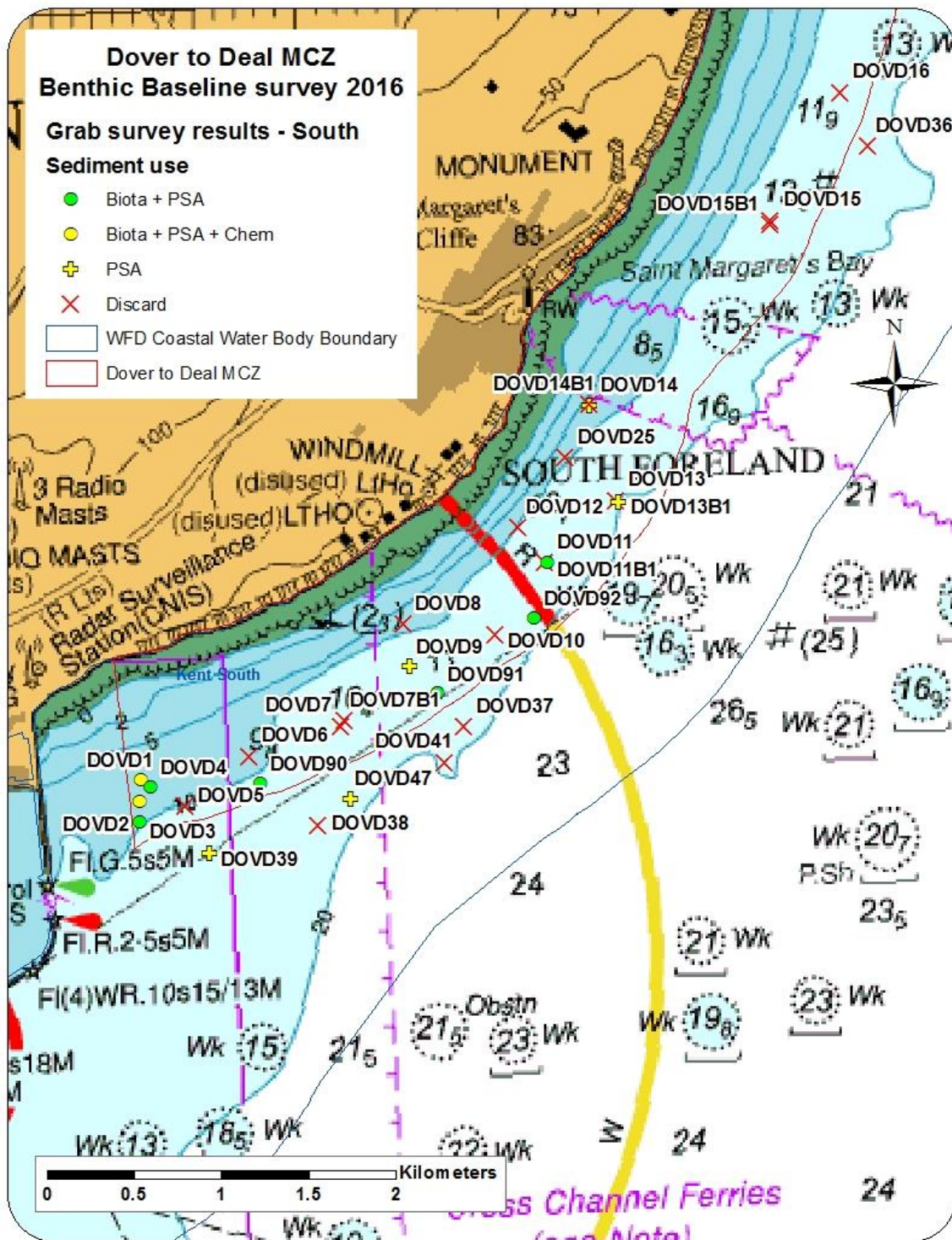


Figure 9. Dover to Deal MCZ 2016 grab survey results (South).

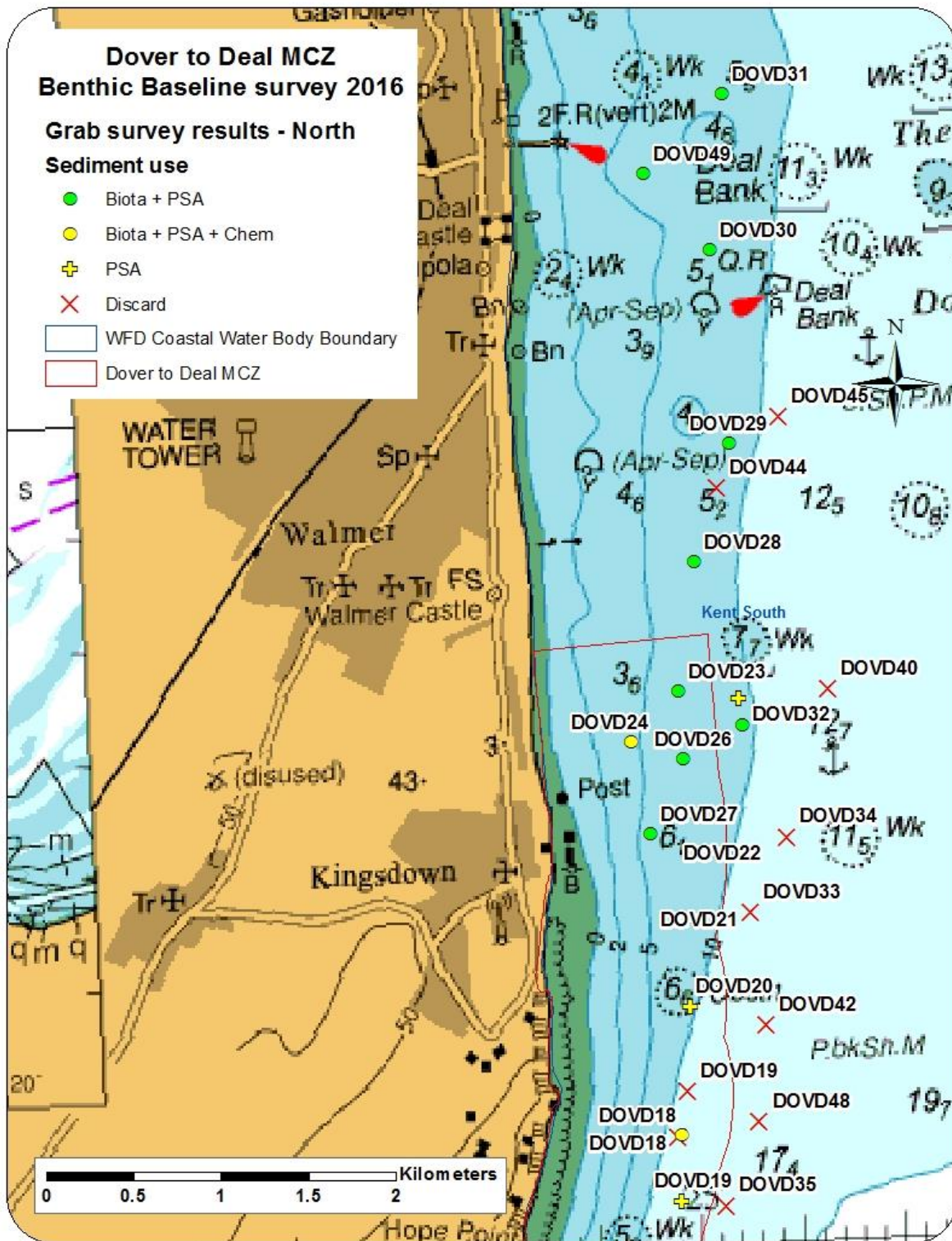


Figure 10. Dover to Deal MCZ 2016 grab survey results (North).

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6. General List of Abbreviations

BSH	Broadscale Habitat
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CHP	Civil Hydrography Programme
CSV	Coastal Survey Vessel
DC	Drop Video Camera
Defra	Department for Environment, Food and Rural Affairs
EA	Environment Agency
FOCI	Features Of Conservation Importance
MCZ	Marine Conservation Zone
MESH	Mapping European Seabed Habitats
PSA	Particle Size Analysis
rMCZ	recommended Marine Conservation Zone
SAC	Special Area of Conservation
SAD	Site Assessment Document
SNCB	Statutory Nature Conservation Body
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
UTC	Coordinated Universal Time

7. Annexes

7.1 Coastal Survey Vessel General Information



Briggs Marine and Environmental Services Ltd.
 Seaforth House, Seaforth Place, Burtisland, Fife, KY3 9AX.
 Tel: +44(0)1592 872939
 Email: marketing@briggsmarine.com
 Website: www.briggsmarine.com



Solent Guardian

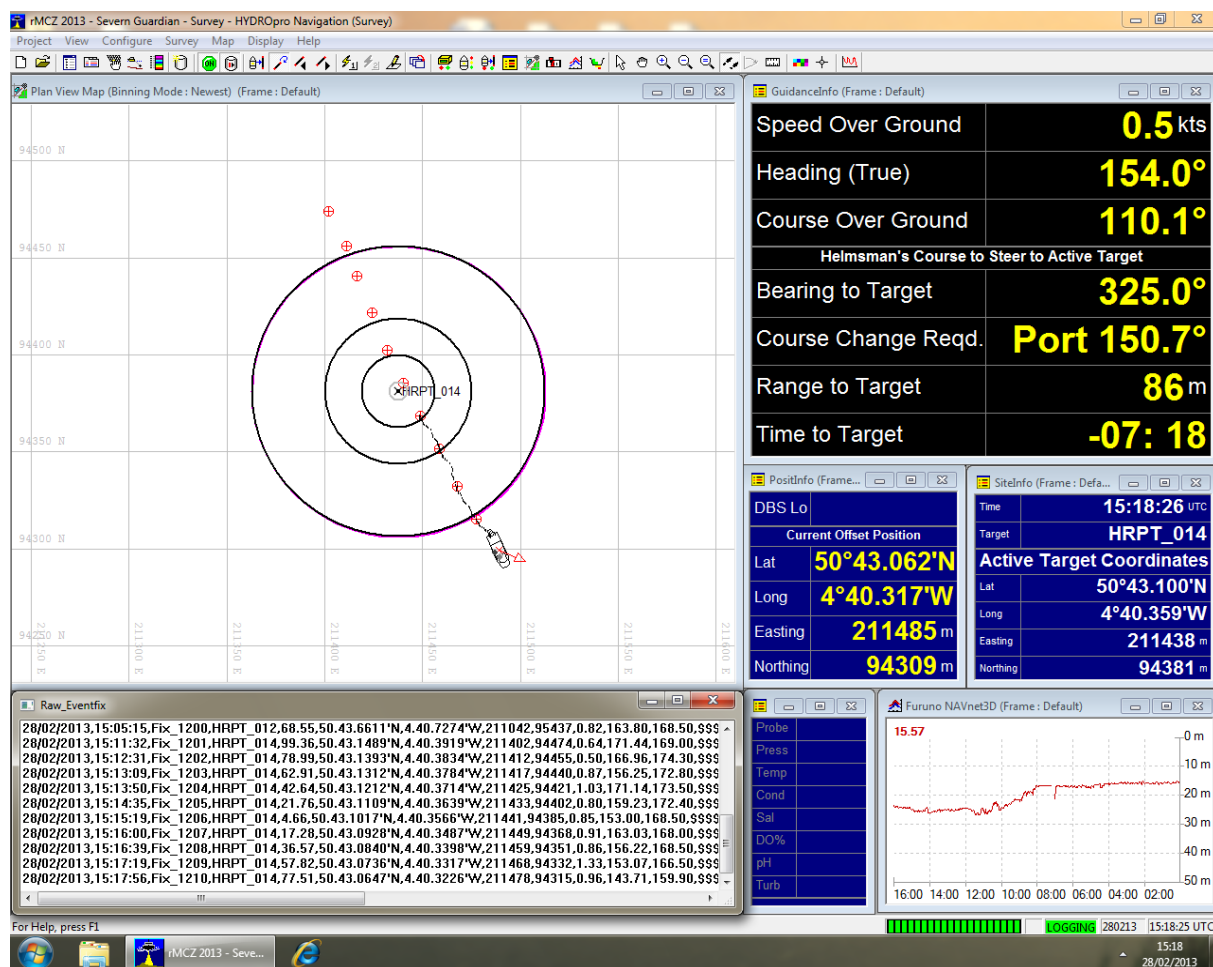
General Information
Length: 18.3 m
Beam: 6.3 m
Draft (baseline): 1.15 m
Draught (skegs): 2.2 m
Displacement (light ship): 22 T
Displacement (full load): 30 T
Service Speed: 16 knots
Maximum Speed: 18 knots

Main Equipment
Main Engines: 2 x Volvo D9-MH 261 bkW @ 2200 rpm. Twin Disc MGX-5075 integral vee-drive
Crew: 7
Scientific Officers: Up to 10
Accommodation: 3 x twin cabins and mess
Data network to share information around vessel
Wet lab/bench for processing water, sediment and ecology samples
Fridge/freezer for sample storage
Dry lab space for two computers and data processing
Large aft deck working area
A frame – 2 T SWL
Double Independent Drum Trawl Winch – 2 T SWL
Hydraulic crane

7.2 Survey Equipment

7.2.1 Navigation and Positioning

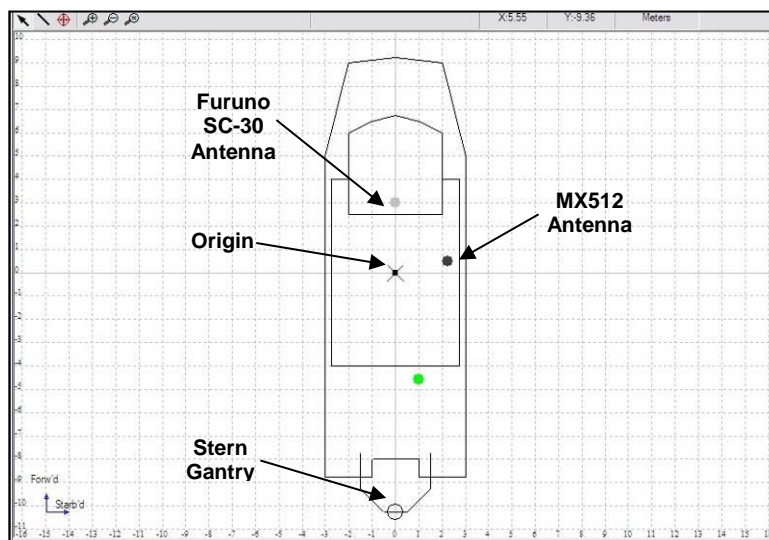
Trimble® HYDROpro™ software is utilised for real-time navigation and survey data acquisition.



Trimble® HYDROpro™ software screen grab displaying real-time navigation and survey data acquisition for a MCZ drop camera survey line.

Navigational and survey equipment offsets on the Coastal Survey Vessel *Solent Guardian* (Environment Agency Estuarine and Coastal Monitoring & Assessment Service).

NMEA Device	Make/Model	Offset Name	Offset (m)		
			X (Starb'd)	Y (Forw'd)	Z +ve (Up)
<i>Gyrocompass</i>	<i>Simrad Robertson RGC50</i>	<i>n/a</i>	-	-	-
<i>Navigation Echosounder</i>	<i>Furuno DFF1, 525ST-MSD transducer</i>	<i>n/a</i>	-	-	-
<i>Survey Echosounder</i>	<i>Kongsberg EA400</i>	<i>n/a</i>	-	-	-
<i>Origin</i>	<i>n/a</i>	<i>Origin</i>	0.0	0.0	0.0
<i>Navigation GPS (Secondary)</i>	<i>Furuno SC-30 DGPS</i>	<i>Furuno SC-30 Antenna</i>	0.0	3.0	0.0
<i>Survey GPS (Primary)</i>	<i>SIMRAD MX512 DGPS</i>	<i>MX512 Antenna</i>	2.25	0.5	0.0
<i>n/a</i>	<i>n/a</i>	<i>Sediment Grab (Stern Gantry)</i>	0.0	-10.25	0.0



Trimble® HYDROpro™ vessel editor screen showing survey equipment offsets from the origin (Environment Agency Estuarine and Coastal Monitoring & Assessment Service).

7.2.2 SeaSpyder Drop Camera System



SEASPYDER DROP CAMERA SYSTEM



The SeaSpyder Underwater Drop Camera System is part of a family of field proven camera systems manufactured by STR for the marine survey and environmental communities. The SeaSpyder is ideally suited for operation in shallow-medium water depths with the standard system having a working depth range of 500m. For applications demanding a deeper rating, a "telemetry" model is offered which operates over longer cable lengths for operation down to 1000m. Both models are fitted with a new generation digital SLR Camera offering high resolution digital stills and HD Video for the highest imagery detail. The high specification digital SLR Camera offers an impressive 18.0 mega pixels resolution and both manual and automatic focus for achieving the sharpest images. The captured digital stills are framed with the aid of dedicated real-time video and can be transferred to the topside 'on the fly' for rapid online review.

A 19" rack mount Surface Control Unit and powerful topside processor give full remote control of the camera via the easy to use SeaView GUI software. As standard, the purpose designed camera deployment frame is fitted with a subsea electronics and camera housing, high power underwater flash, an array of four high intensity LED lamps and dual scaling laser pointers to provide accurate imagery scaling. There is the option to install additional sensors with the availability of three user defined serial interfaces with optional power.

SYSTEM FEATURES

- Latest generation 18 Mega Pixels Digital SLR Camera
- Full remote control of camera functions including automatic and manual focus control
- 'On-the-fly' image download
- Real time HD Video
- High Intensity LED Lamps
- Dual lasers for precise imagery scaling
- High speed digital telemetry link to camera and sensors
- Additional user defined RS232 ports and 24VDC power interfaces

7.3 EA underwater video procedure_version 2.2 (STR Systems)

The procedure outlined below has been developed through a series of discussions involving the Environment Agency, Cefas and Natural England. Due to the heterogeneous nature of the inshore coastal seabed habitat, strong tidal streams, various underwater hazards and no dynamic positioning system on the survey vessels, a flexible approach is recommended for the underwater video camera deployment. The procedure must be used in accordance with the MESH 'recommended operating guidelines (ROG) for underwater video and photographic imaging techniques' (Coggan et al., 2007).

Important points to remember:

- **Select stern gantry offset in Hydropro**
- **Synchronise all survey equipment (camera, laptops, etc.) with primary survey GPS time (UTC).**
- **Ensure the correct date, station code, time and position are displayed on the video overlay.**

Example:

EA Marine Monitoring Service_2013-1008

RNSB_GT025_STN_028 (*annotate if station has been attempted on a previous occasion A1, A2, etc.*)

UTC: 142544 (*real time feed from survey GPS*)

Lat: 5433.3403N (*real time uncorrected feed from survey GPS*)

Lon: 00038.9172W (*real time uncorrected feed from survey GPS*)



- **Alter the stills prefix to the correct station code.**

Example:

RNSB017_STN_? (? = sequential 'STN or event' number expressed as an integer i.e. no leading zeros – refer to previous survey period for starting number)

The software will then automatically add '_01, _02, _03.....' as the stills are captured – you may need to adjust the number of leading zeros.

Final stills code format saved to the laptop:

RNSB017_STN_14_01

RNSB017_STN_14_02

RNSB017_STN_14_03



- **The field of view scale bar/laser points should be set up/calibrated prior to the survey commencing. Laser pointers are ineffective in moderate/poor visibility conditions; a rope with a visible scale will be required as a replacement**
- **Set the image resolution to Large Normal (Seabug 14.7 Megapixels, SeaSpyder 18.0 Megapixels).**
- **Check that the camera settings are appropriate for the conditions; that the LED lights are on if required and ensure that the video is recording throughout the deployment.**
- **If a Broadscale Habitat (BSH) boundary is detected, extend the deployment to gather as much information on habitat extent as possible.**
- **Take extra stills if habitat/species FOCI are observed – note these in the survey log.**
- **If possible, work a downhill seabed profile to avoid slack cable during deployment.**
- **Beware of sudden depth changes when surveying rocky areas.**
- **Abandon the station if survey conditions are hazardous.**

Video Camera Type
Survey Conditions
Deployment

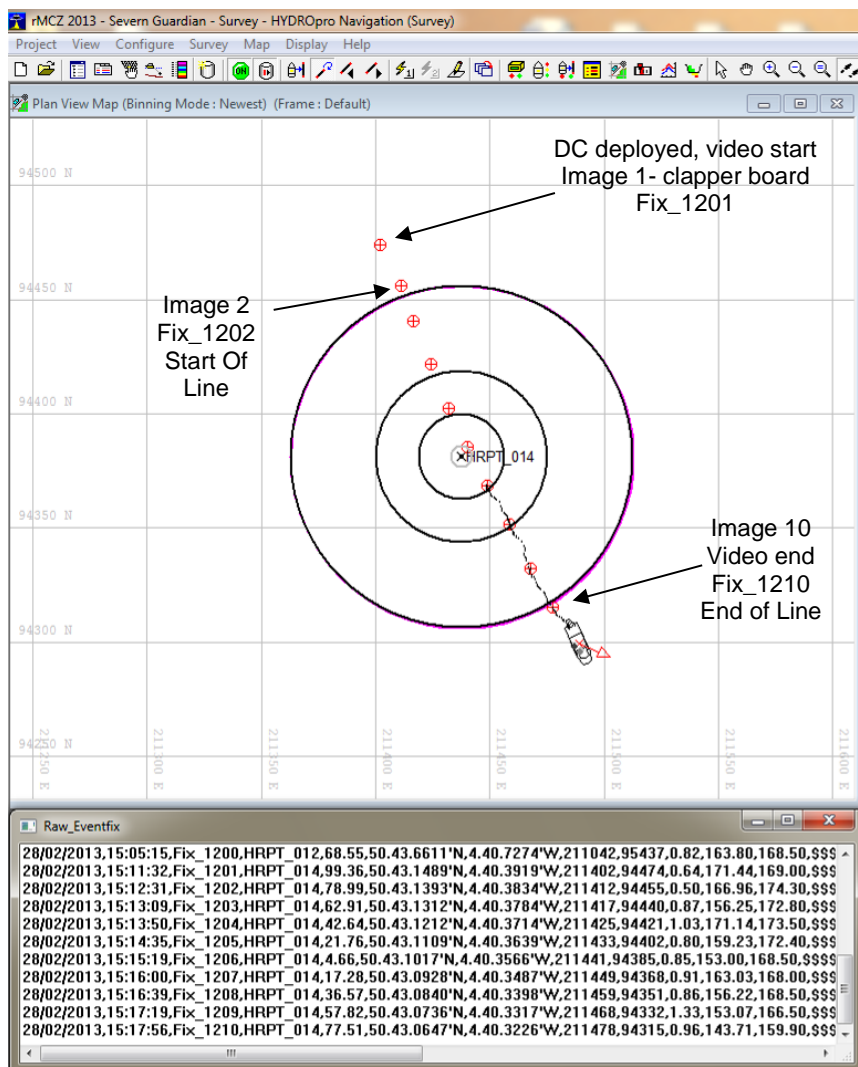
Drop down

Good visibility



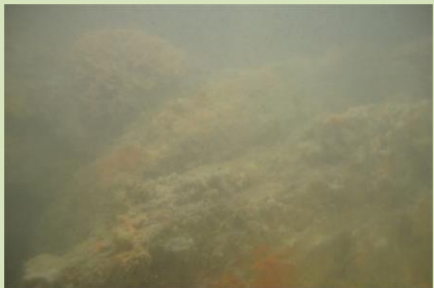


*Deploy camera, initially working across the Hydropro 75 m radius target area, as shown in the diagram below. Hover/rest camera above/on the seabed; take a still every 15 m. If tide/wind conditions do not allow a survey line to be followed across the bull ring, use the outer circle as a guide to ensure a distance of 150 m is covered (minimum) nearby.

Poor visibility

Hover/rest camera above/on the seabed, take a still every 15 m. If the visibility is very poor, retrieve the equipment after taking 3 - 4 stills.



7.4 Underwater Visibility Scale

Example image	Scale	Definition
	Excellent	clear, sharp images - no suspended particulate matter
	Good	seabed features and epifauna clearly discernible
	Moderate	seabed features discernible - epifauna difficult to discern
	Poor	both seabed features and epifauna difficult to discern, low confidence in preliminary habitat assessment
	Very Poor	no seabed features or epifauna visible

7.5 MCZ Video logsheet (example)

MCZ Video Logsheet (v1)



Station data

Contract Code: C5433 Vessel: Solent Guardian Date: 09/04/2016

MCZ Name: Mounts Bay Station Code: MNTB071

Nav-Log filename: SW 2016-0409 SL_log Sampling Gear: DC Water Depth: 10.5 m

Cable Out: _____ (metres). Speed Over Ground (SOG): 1.0 (knots)

Notes on Station: _____ Position Reference Point: Stern gantry
(including any times & adjustments to Cable Out)

Sample data

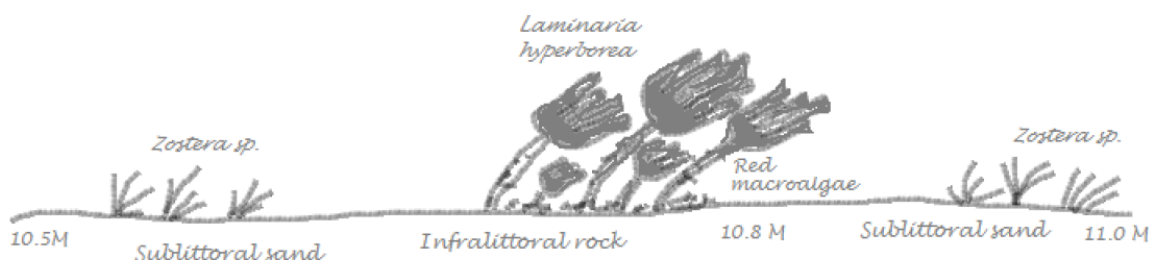
Digital Video Tape label: n/a

Filename on Hard-Drive: MNTB 2GDK70416 GT071 STN 1 A1 153751

No. of camera stills: 14 Stills folder name: GT071 STN 1

	GPS Time hh:mm		Fix No	Position in Lat/Long (WGS84)	DV tape counter	
	Mins	Secs			Mins	Secs
Start of Video (SOV)	15	40	3862	50° 06.3266' N; 5° 32.2924' W	n/a	n/a
End of Video (EOV)	15	45	3875	50° 06.3893' N; 5° 32.2093' W	n/a	n/a

Visual / Video notes: (ground-type, terrain, visibility, species, FOCI, sketch of transect)



Broad-scale habitats observed

Infralittoral Rock	Circalittoral Rock	Sediment habitats	Others
high energy ✓	high energy	subtidal mixed	macrophyte dominated sed's ✓
mod.energy	mod.energy	subtidal coarse	biogenic reef
low energy	low energy	subtidal mud	deep-sea bed
		subtidal sand ✓	

Completed by: K. Arnold

Checked by: N. Godsell

Entered by: K. Arnold

7.6 Daily Progress Reports

Vessel: Solent Guardian	Project: Dover to Deal MCZ survey
Daily Progress Report No.1	Location: Dover Marina
Date: 16/08/2016	

Safety

	Today	To Date
Accidents/Incidents	0	0
Near Misses	0	0
Safety Drills/Induction	1	1
Additional comments:		

Summary of operations 0000-2400

Time UTC (start)	Time UTC (end)	Type	Comments
07:00	13:00	Mobilisation	
13:00	17:00	Equipment	Camera system arrived and was set up

Weather

Weather/sea state conditions	0000-0600	0600-1200	1200-1800	1800-2400	Remarks
Wind			Easterly of north easterly 4 or 5, occasionally 6.		
Sea state			Slight, occasionally moderate		
Swell			0.45m (Folkestone)		
Visibility			Good		

Overall Progress

Type	Today (hh:mm)	Accum (hh:mm)	Remarks
Mob	06:00	06:00	
Offshore Calibrations			
Total Operation (Camera) Survey (TOSu)			
Total Operation (Grab) Sampling (TOSa)			
Equipment/Downtime	04:00	04:00	
Ship/Plant Downtime			
Waiting On Weather			
Transit			
Standby Port			
Demob			
Other			
Total:			

Overall Progress Groundtruthing Samples

Action	Sites Total	Sites Complete	Remaining Sites	Remarks
Day Grab	48	0	48	
Drop Camera	40	0	40	

Weather forecast for the next 24 hours

Easterly or Northeasterly 4 or 5, becoming variable 3 at times, occasional rain or showers later
--

Planned operation for the next 24 hours (00:00 to 24:00 on 24th April 2013)

Commence drop down video at Dover to Deal MCZ or Dover to Folkestone depending on wind direction/speed
--

Agreed Changes to Scope/Survey operation priorities

No changes required

Comments

--

Vessel: Solent Guardian	Project: Dover to Deal/Folkestone MCZ survey
Daily Progress Report No.2	Location: Dover Marina
Date: 17/08/2016	

Safety

	Today	To Date
Accidents/Incidents	0	0
Near Misses	0	0
Safety Drills/Induction	1	2
Additional comments:		

Summary of operations 0000-2400

Time UTC (start)	Time UTC (end)	Type	Comments
08:00	08:15	Other	Toolbox talk and dry run of camera deployment
08:15	08:45	Transit	
08:45	17:15	Camera survey	
17:15	17:45	Transit	

Weather

Weather/sea state conditions	0000-0600	0600-1200	1200-1800	1800-2400	Remarks
Wind		Easterly of north easterly becoming variable, 3 or 4	North easterly 3 or 4		
Sea state		Slight, occasionally smooth	Slight		
Swell		0.38m (Folkestone)	0.43m (Folkestone)		
Visibility		Moderate or good	Good		

Overall Progress

Type	Today (hh:mm)	Accum (hh:mm)	Remarks
Mob		06:00	
Offshore Calibrations			
Total Operation (Camera) Survey (TOSu)	08:30	08:30	
Total Operation (Grab) Sampling (TOSa)			
Equipment/Downtime		04:00	
Ship/Plant Downtime			
Waiting On Weather			
Transit	01:00	01:00	
Standby Port			
Demob			
Other	00:15	00:15	Toolbox talks
Total:	09:45	19:45	

Overall Progress Groundtruthing Samples

Action	Sites Total	Sites Complete	Remaining Sites	Remarks
(DOVD) Day Grab	48	0	48	
(DOVD) Drop Camera	40	7	33	
(DVFK) Day Grab	54	0	54	
(DVFK) Drop Camera	30	28	2	Remaining sites were inaccessible due to fishing gear

Weather forecast for the next 24 hours

Variable 3 or 4, becoming southerly 4 or 5 later. Sea state – smooth or slight becoming moderate.
Weather – rain or showers.

Planned operation for the next 24 hours (00:00 to 24:00 on 24th April 2013)

Complete the remaining camera sites at Dover to Deal, remaining time will be spent re-visiting sites that had poor visibility today.

Agreed Changes to Scope/Survey operation priorities

No changes required

Comments

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Vessel: Solent Guardian	Project: Dover to Deal/Folkestone MCZ survey
Daily Progress Report No.3	Location: Dover Marina
Date: 18/08/2016	

Safety

	Today	To Date
Accidents/Incidents	0	0
Near Misses	0	0
Safety Drills/Induction	1	3
Additional comments:		

Summary of operations 0000-2400

Time UTC (start)	Time UTC (end)	Type	Comments
08:00	08:30	Transit	
08:30	14:30	Camera survey	
14:30	15:00	Transit	
15:00	16:00	Equipment	Change over from camera to Day grab

Weather

Weather/sea state conditions	0000-0600	0600-1200	1200-1800	1800-2400	Remarks
Wind		Variable 3 or 4, becoming southerly 4 or 5 later.	ENE 3		
Sea state		Smooth or Slight	Slight		
Swell		0.25m (Folkestone)	0.28m (Folkestone)		
Visibility		Moderate or good, occasionally	Good		

Overall Progress

Type	Today (hh:mm)	Accum (hh:mm)	Remarks
Mob		06:00	
Offshore Calibrations			
Total Operation (Camera) Survey (TOSu)	06:00	14:30	
Total Operation (Grab) Sampling (TOSa)			
Equipment/Downtime	01:00	05:00	Changeover from camera to Day grab
Ship/Plant Downtime			
Waiting On Weather			
Transit	01:00	02:00	
Standby Port			
Demob			
Other		00:15	
Total:	08:00	27:45	

Overall Progress Groundtruthing Samples

Action	Sites Total	Sites Complete	Remaining Sites	Remarks
(DOVD) Day Grab	48	0	48	
(DOVD) Drop Camera	40	32	8	Repeated 2 stations to improve coverage. 8 sites dropped following nil visibility in sites north of the MCZ.
(DVFK) Day Grab)	54	0	54	
(DVFK) Drop Camera	30	30	0	Repeated 4 stations to improve coverage and the fishing gear preventing surveying yesterday

Weather forecast for the next 24 hours

Wind: southerly 5 or 6, veering southwesterly 5 to 7, perhaps gale 8 later. Sea state: Slight or moderate, becoming rough later. Visibility: Moderate or good occasionally poor.

Planned operation for the next 24 hours (00:00 to 24:00 on 24th April 2013)

Begin Day grab activities at DVFK. Operations will cease at 1500 to allow demobbing of camera equipment

Agreed Changes to Scope/Survey operation priorities

No changes required

Comments

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Vessel: Solent Guardian	Project: Dover to Deal/Folkestone MCZ survey
Daily Progress Report No.4	Location: Dover Marina
Date: 19/08/2016	

Safety

	Today	To Date
Accidents/Incidents	0	0
Near Misses	0	0
Safety Drills/Induction	2	5
Additional comments:		

Summary of operations 0000-2400

Time UTC (start)	Time UTC (end)	Type	Comments
08:00	08:15	Induction	New survey personnel received a vessel induction, we had a toolbox talk and demonstration of the Day grab procedure
08:15	08:45	Transit	
08:45	13:15	Day grab survey	
13:15	14:00	Transit	
14:00	15:00	Demob camera	

Weather

Weather/sea state conditions	0000-0600	0600-1200	1200-1800	1800-2400	Remarks
Wind		Southerly 5 or 6, veering southwesterly 5 to 7. Sea state:	SW 4 to 5		
Sea state		Slight or moderate, becoming rough later	Moderate or rough		
Swell		0.35m (Folkestone)	0.9m (Folkestone)		
Visibility		Moderate or good	Moderate		

Overall Progress

Type	Today (hh:mm)	Accum (hh:mm)	Remarks
Mob		06:00	
Offshore Calibrations			
Total Operation (Camera) Survey (TOSu)	04:30	19:00	
Total Operation (Grab) Sampling (TOSa)			
Equipment/Downtime		05:00	
Ship/Plant Downtime			
Waiting On Weather			
Transit	01:15	03:15	
Standby Port			
Demob	01:00	01:00	Demob camera system
Other	00:15	00:30	Day grab and vessel induction
Total:	07:00	34:45	

Overall Progress Groundtruthing Samples

Action	Sites Total	Sites Complete	Remaining Sites	Remarks
(DOVD) Day Grab	48	0	48	
(DOVD) Drop Camera	40	32	8	Repeated 2 stations to improve coverage. 8 sites dropped following nil visibility in sites north of the MCZ.
(DVFK) Day Grab	54	16	38	Biota and PSA samples collected at 11 sites, PSA only at 1 site and no samples were able to be collected at 4 sites
(DVFK) Drop Camera	30	30	0	Repeated 4 stations to improve coverage and the fishing gear preventing surveying yesterday

Weather forecast for the next 24 hours

Wind: Southwesterly 6 to gale 8, veering westerly 5 to 6 later. Sea state: Moderate or rough. Visibility: Good occasionally poor.

Planned operation for the next 24 hours (00:00 to 24:00 on 20th August 2016)

No survey operations due to strong winds

Agreed Changes to Scope/Survey operation priorities

No changes required

Comments

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Vessel: Solent Guardian	Project: Dover to Deal/Folkestone MCZ survey
Daily Progress Report No.5	Location: Dover Marina
Date: 22/08/2016	

Safety

	Today	To Date
Accidents/Incidents	0	0
Near Misses	0	0
Safety Drills/Induction	2	7
Additional comments:		

Summary of operations 0000-2400

Time UTC (start)	Time UTC (end)	Type	Comments
07:00	19:00	Down-weathered	Strong winds and a high sea state meant that survey operations were halted

Weather

Weather/sea state conditions	0000-0600	0600-1200	1200-1800	1800-2400	Remarks
Wind		Westerly 4	WNW 4		
Sea state		Slight or moderate	Slight or moderate		
Swell		0.75m (Folkestone)	0.7m (Folkestone)		
Visibility		Moderate or good	Moderate or good		

Overall Progress

Type	Today (hh:mm)	Accum (hh:mm)	Remarks
Mob		06:00	
Offshore Calibrations			
Total Operation (Camera) Survey (TOSu)		19:00	
Total Operation (Grab) Sampling (TOSa)			
Equipment/Downtime		05:00	
Ship/Plant Downtime	12:00	36:00	
Waiting On Weather			
Transit		03:15	
Standby Port			
Demob		01:00	
Other		00:30	
Total:	12:00	70:45	

Overall Progress Groundtruthing Samples

Action	Sites Total	Sites Complete	Remaining Sites	Remarks
(DOVD) Day Grab	48	0	48	
(DOVD) Drop Camera	40	32	8	Repeated 2 stations to improve coverage. 8 sites dropped following nil visibility in sites north of the MCZ.
(DVFK) Day Grab	54	16	38	Biota and PSA samples collected at 11 sites, PSA only at 1 site and no samples were able to be collected at 4 sites
(DVFK) Drop Camera	30	30	0	Repeated 4 stations to improve coverage and the fishing gear preventing surveying yesterday

Weather forecast for the next 24 hours

Wind: Easterly or southeasterly, becoming variable later, 3 or 4, occasionally 5 at first. Sea state: Mainly slight. Visibility: Moderate or good, occasionally poor later.

Planned operation for the next 24 hours (00:00 to 24:00 on 20th August 2016)

We will continue with Day grab surveying in DVFK MCZ

Agreed Changes to Scope/Survey operation priorities

No changes required

Comments

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Vessel: Solent Guardian	Project: Dover to Deal/Folkestone MCZ survey
Daily Progress Report No.6	Location: Dover Marina
Date: 23/08/2016	

Safety

	Today	To Date
Accidents/Incidents	0	0
Near Misses	0	0
Safety Drills/Induction	2	9
Additional comments:		

Summary of operations 0000-2400

Time UTC (start)	Time UTC (end)	Type	Comments
07:45	08:00	Induction and toolbox talk	Vessel induction and grab procedure toolbox talk for new survey staff
08:00	08:45	Transit	
08:45	17:15	Grab survey	
17:15	17:45	Transit	
17:45	19:00	Sample processing	

Weather

Weather/sea state conditions	0000-0600	0600-1200	1200-1800	1800-2400	Remarks
Wind		Easterly or Southeasterly 3 or 4	Easterly 2		
Sea state		Slight	Slight		
Swell		0.18m (Folkestone)	0.21m (Folkestone)		
Visibility		Good, occasionally poor	Good, occasionally poor		

Overall Progress

Type	Today (hh:mm)	Accum (hh:mm)	Remarks
Mob		06:00	
Offshore Calibrations			
Total Operation (Camera) Survey (TOSu)		19:00	
Total Operation (Grab) Sampling (TOSa)	08:30	08:30	
Equipment/Downtime		05:00	
Ship/Plant Downtime		36:00	
Waiting On Weather			
Transit	01:15	04:30	
Standby Port			
Demob		01:00	
Other	01:30	02:00	Induction and sample processing
Total:	11:15	82:00	

Overall Progress Groundtruthing Samples

Action	Sites Total	Sites Complete	Remaining Sites	Remarks
(DOVD) Day Grab	48	0	48	
(DOVD) Drop Camera	40	32	8	
(DVFK) Day Grab)	54	49	5	
(DVFK) Drop Camera	30	30	0	

Weather forecast for the next 24 hours

Wind: Variable 3 or less, increasing 4 at times. Sea state: Smooth or slight. Visibility: Moderate or good, occasionally poor.

Planned operation for the next 24 hours (00:00 to 24:00 on 24th August 2016)

We will begin with Day grab surveying in DOVD MCZ

Agreed Changes to Scope/Survey operation priorities

No changes required

Comments

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Vessel: Solent Guardian	Project: Dover to Deal/Folkestone MCZ survey
Daily Progress Report No.7	Location: Dover Marina
Date: 24/08/2016	

Safety

	Today	To Date
Accidents/Incidents	0	0
Near Misses	0	0
Safety Drills/Induction	2	11
Additional comments:		

Summary of operations 0000-2400

Time UTC (start)	Time UTC (end)	Type	Comments
08:00	09:00	Transit	
09:00	17:00	Grab survey	
16:45	17:15	Transit	
17:15	18:00	Sample processing	

Weather

Weather/sea state conditions	0000-0600	0600-1200	1200-1800	1800-2400	Remarks
Wind		Variable 3 or less	Easterly 3		
Sea state		Smooth or slight	Smooth or slight		
Swell		0.34m (Folkestone)	0.25m (Folkestone)		
Visibility		Moderate or good, occasionally poor	Good		

Overall Progress

Type	Today (hh:mm)	Accum (hh:mm)	Remarks
Mob		06:00	
Offshore Calibrations			
Total Operation (Camera) Survey (TOSu)		19:00	
Total Operation (Grab) Sampling (TOSa)	08:00	16:30	
Equipment/Downtime		05:00	
Ship/Plant Downtime		36:00	
Waiting On Weather			
Transit	01:30	06:00	
Standby Port			
Demob		01:00	
Other	00:45	02:45	Sample processing
Total:	10:15	92:15	

Overall Progress Groundtruthing Samples

Action	Sites Total	Sites Complete	Remaining Sites	Remarks
(DOVD) Day Grab	48	36	12	Biota and PSA = 13 stations, PSA only = 4 stations No sample collected = 19
(DOVD) Drop Camera	40	32	8	
(DVFK) Day Grab)	54	49	5	
(DVFK) Drop Camera	30	30	0	

Weather forecast for the next 24 hours

Wind: Variable mainly north-westerly veering north easterly later 3 or 4. Sea state: Smooth or slight.
 Visibility: Moderate or good, occasionally poor.

Planned operation for the next 24 hours (00:00 to 24:00 on 24th August 2016)

We will aim to complete Day grab surveying in DOVD and DVFK MCZ

Agreed Changes to Scope/Survey operation priorities

No changes required

Comments

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Vessel: Solent Guardian	Project: Dover to Deal/Folkestone MCZ survey
Daily Progress Report No.8	Location: Dover Marina
Date: 25/08/2016	

Safety

	Today	To Date
Accidents/Incidents	0	0
Near Misses	0	0
Safety Drills/Induction	0	11
Additional comments:		

Summary of operations 0000-2400

Time UTC (start)	Time UTC (end)	Type	Comments
07:30	08:00	Transit	
08:00	13:00	Grab survey	
13:00	13:30	Transit	
13:30	14:00	Personnel change	
14:00	14:30	Transit	
14:30	16:30	Grab survey	
16:30	17:15	Transit	
17:15	17:45	Re-fuel	
17:45	18:00	Sample processing	

Weather

Weather/sea state conditions	0000-0600	0600-1200	1200-1800	1800-2400	Remarks
Wind		Variable 3 or less	SSW 2-3		
Sea state		Smooth or slight	Smooth or slight		
Swell		0.18m (Folkestone)	0.20m (Folkestone)		
Visibility		Moderate or good, occasionally poor	Good		

Overall Progress

Type	Today (hh:mm)	Accum (hh:mm)	Remarks
Mob		06:00	
Offshore Calibrations			
Total Operation (Camera) Survey (TOSu)		19:00	
Total Operation (Grab) Sampling (TOSa)	07:00	23:30	
Equipment/Downtime		05:00	
Ship/Plant Downtime		36:00	
Waiting On Weather			
Transit	02:15	08:15	
Standby Port			
Demob		01:00	
Other	01:45	04:30	Personnel change, re-fuelling and sample processing
Total:	11:00	103:15	

Overall Progress Groundtruthing Samples

Action	Sites Total	Sites Complete	Remaining Sites	Remarks
(DOVD) Day Grab	48	48	0	Biota and PSA = 21 stations, PSA only = 8 stations No sample collected = 19
(DOVD) Drop Camera	40	32	8	
(DVFK) Day Grab	54	54	0	Biota and PSA = 41 stations, PSA only = 5 stations No sample collected = 8
(DVFK) Drop Camera	30	30	0	

Weather forecast for the next 24 hours

N/a

Planned operation for the next 24 hours (00:00 to 24:00 on 26th August 2016)

Samples will be collected by courier to be stored at Brampton

Agreed Changes to Scope/Survey operation priorities

No changes required

Comments

--

7.7 Video Survey Metadata

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	STN number	Hpro fix no.	Still label	Water depth (m)	SOG (knots)
Sampling Gear: SeaSpyder Drop Camera, FOV Scale: Lasers (13.5cm) and vessel offset is Stern Gantry									
17/08/2016	15:00	DOVD_050	51.12928	1.35095	29	5694	DOVD_2GDK70816_GT050_STN_29_A1_0253	8.86	0.73
17/08/2016	15:01	DOVD_050	51.12930	1.35117	29	5695	DOVD_2GDK70816_GT050_STN_29_A1_0254	9.00	0.96
17/08/2016	15:01	DOVD_050	51.12930	1.35126	29	5696	DOVD_2GDK70816_GT050_STN_29_A1_0255	8.97	0.76
17/08/2016	15:02	DOVD_050	51.12930	1.35142	29	5697	DOVD_2GDK70816_GT050_STN_29_A1_0256	9.02	0.74
17/08/2016	15:02	DOVD_050	51.12934	1.35154	29	5698	DOVD_2GDK70816_GT050_STN_29_A1_0257	9.15	0.91
17/08/2016	15:03	DOVD_050	51.12938	1.35169	29	5699	DOVD_2GDK70816_GT050_STN_29_A1_0258	8.78	0.87
17/08/2016	15:03	DOVD_050	51.12938	1.35180	29	5700	DOVD_2GDK70816_GT050_STN_29_A1_0259	9.22	0.99
17/08/2016	15:04	DOVD_050	51.12938	1.35202	29	5701	DOVD_2GDK70816_GT050_STN_29_A1_0260	8.59	0.78
17/08/2016	15:04	DOVD_050	51.12944	1.35222	29	5702	DOVD_2GDK70816_GT050_STN_29_A1_0261	8.22	1.04
17/08/2016	15:04	DOVD_050	51.12946	1.35234	29	5703	DOVD_2GDK70816_GT050_STN_29_A1_0262	8.29	0.92
17/08/2016	15:06	DOVD_050	51.12962	1.35290	29	5704	DOVD_2GDK70816_GT050_STN_29_A1_0263	7.56	1.12
17/08/2016	15:07	DOVD_050	51.12955	1.35302	29	5705	DOVD_2GDK70816_GT050_STN_29_A1_0264	8.07	0.94
17/08/2016	15:07	DOVD_050	51.12958	1.35304	29	5706	DOVD_2GDK70816_GT050_STN_29_A1_0265	8.19	0.67
17/08/2016	15:08	DOVD_050	51.12966	1.35322	29	5707	Extra Fix	8.16	0.99
17/08/2016	15:11	DOVD_051	51.13063	1.35624	30	5708	DOVD_2GDK70816_GT051_STN_30_A1_0266	7.54	0.98
17/08/2016	15:11	DOVD_051	51.13067	1.35632	30	5709	DOVD_2GDK70816_GT051_STN_30_A1_0267	7.42	0.62
17/08/2016	15:12	DOVD_051	51.13080	1.35651	30	5710	DOVD_2GDK70816_GT051_STN_30_A1_0268	7.6	1.05
17/08/2016	15:13	DOVD_051	51.13086	1.35662	30	5711	DOVD_2GDK70816_GT051_STN_30_A1_0269	7.26	0.87
17/08/2016	15:13	DOVD_051	51.13094	1.35679	30	5712	DOVD_2GDK70816_GT051_STN_30_A1_0270	7.09	1.23
17/08/2016	15:15	DOVD_051	51.13119	1.35737	30	5713	DOVD_2GDK70816_GT051_STN_30_A1_0271	7.81	0.73
17/08/2016	15:15	DOVD_051	51.13124	1.35740	30	5714	DOVD_2GDK70816_GT051_STN_30_A1_0272	7.98	0.74
17/08/2016	15:16	DOVD_051	51.13136	1.35749	30	5715	DOVD_2GDK70816_GT051_STN_30_A1_0273	8.06	0.87

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	STN number	Hpro fix no.	Still label	Water depth (m)	SOG (knots)
17/08/2016	15:16	DOVD_051	51.13137	1.35752	30	5716	DOVD_2GDK70816_GT051_STN_30_A1_0274	7.76	0.76
17/08/2016	15:16	DOVD_051	51.13137	1.35762	30	5717	DOVD_2GDK70816_GT051_STN_30_A1_0275	7.79	0.81
17/08/2016	15:17	DOVD_051	51.13140	1.35780	30	5718	DOVD_2GDK70816_GT051_STN_30_A1_0276	7.56	0.85
17/08/2016	15:17	DOVD_051	51.13142	1.35790	30	5719	DOVD_2GDK70816_GT051_STN_30_A1_0277	7.61	0.65
17/08/2016	15:20	DOVD_052	51.13058	1.35765	31	5720	DOVD_2GDK70816_GT052_STN_31_A1_0278	7.88	1.25
17/08/2016	15:21	DOVD_052	51.13049	1.35745	31	5721	DOVD_2GDK70816_GT052_STN_31_A1_0279	8.75	1.35
17/08/2016	15:21	DOVD_052	51.13039	1.35723	31	5722	DOVD_2GDK70816_GT052_STN_31_A1_0280	8.84	1.24
17/08/2016	15:22	DOVD_052	51.13023	1.35681	31	5723	DOVD_2GDK70816_GT052_STN_31_A1_0281	8.60	1.19
17/08/2016	15:22	DOVD_052	51.13021	1.35675	31	5724	DOVD_2GDK70816_GT052_STN_31_A1_0282	8.93	1.26
17/08/2016	15:22	DOVD_052	51.13017	1.35664	31	5725	DOVD_2GDK70816_GT052_STN_31_A1_0283	8.74	1.11
17/08/2016	15:22	DOVD_052	51.13017	1.35661	31	5726	DOVD_2GDK70816_GT052_STN_31_A1_0284	8.44	1.06
17/08/2016	15:23	DOVD_052	51.13015	1.35657	31	5727	DOVD_2GDK70816_GT052_STN_31_A1_0285	8.52	1.09
17/08/2016	15:23	DOVD_052	51.13013	1.35652	31	5728	DOVD_2GDK70816_GT052_STN_31_A1_0286	8.95	1.27
17/08/2016	15:23	DOVD_052	51.13010	1.35644	31	5729	DOVD_2GDK70816_GT052_STN_31_A1_0287	8.96	1.25
17/08/2016	15:23	DOVD_052	51.13010	1.35641	31	5730	DOVD_2GDK70816_GT052_STN_31_A1_0288	8.94	1.27
17/08/2016	15:23	DOVD_052	51.13006	1.35628	31	5731	DOVD_2GDK70816_GT052_STN_31_A1_0289	9.35	1.27
17/08/2016	15:23	DOVD_052	51.13003	1.35615	31	5732	DOVD_2GDK70816_GT052_STN_31_A1_0290	8.80	1.32
17/08/2016	15:24	DOVD_052	51.13001	1.35609	31	5733	DOVD_2GDK70816_GT052_STN_31_A1_0291	8.78	1.37
17/08/2016	15:28	DOVD_053	51.13017	1.35966	32	5734	DOVD_2GDK70816_GT053_STN_32_A1_0292	12.82	0.73
17/08/2016	15:28	DOVD_053	51.13018	1.35976	32	5735	DOVD_2GDK70816_GT053_STN_32_A1_0293	13.07	0.53
17/08/2016	15:29	DOVD_053	51.13023	1.35996	32	5736	DOVD_2GDK70816_GT053_STN_32_A1_0294	13.26	0.53
17/08/2016	15:30	DOVD_053	51.13028	1.36020	32	5737	DOVD_2GDK70816_GT053_STN_32_A1_0295	13.44	0.76
17/08/2016	15:31	DOVD_053	51.13037	1.36035	32	5738	DOVD_2GDK70816_GT053_STN_32_A1_0296	13.31	1.66
17/08/2016	15:32	DOVD_053	51.13028	1.36057	32	5739	DOVD_2GDK70816_GT053_STN_32_A1_0297	13.61	0.71
17/08/2016	15:33	DOVD_053	51.13028	1.36089	32	5740	Extra Fix	13.67	0.67
17/08/2016	15:37	DOVD_054	51.13074	1.36240	33	5741	DOVD_2GDK70816_GT054_STN_33_A1_0298	13.01	0.57

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	STN number	Hpro fix no.	Still label	Water depth (m)	SOG (knots)
17/08/2016	15:38	DOVD_054	51.13078	1.36254	33	5742	DOVD_2GDK70816_GT054_STN_33_A1_0299	13.26	0.83
17/08/2016	15:39	DOVD_054	51.13088	1.36289	33	5743	DOVD_2GDK70816_GT054_STN_33_A1_0300	13.18	3.84
17/08/2016	15:40	DOVD_054	51.13089	1.36274	33	5744	DOVD_2GDK70816_GT054_STN_33_A1_0301	13.52	0.81
17/08/2016	15:40	DOVD_054	51.13078	1.36276	33	5745	DOVD_2GDK70816_GT054_STN_33_A1_0302	13.52	0.68
17/08/2016	15:41	DOVD_054	51.13090	1.36284	33	5746	DOVD_2GDK70816_GT054_STN_33_A1_0303	13.19	2.11
17/08/2016	15:43	DOVD_054	51.13105	1.36316	33	5747	DOVD_2GDK70816_GT054_STN_33_A1_0304	12.81	0.73
17/08/2016	15:45	DOVD_054	51.13124	1.36362	33	5748	DOVD_2GDK70816_GT054_STN_33_A1_0305	12.36	0.74
17/08/2016	15:45	DOVD_054	51.13139	1.36384	33	5749	Extra Fix	12.02	0.90
17/08/2016	15:52	DOVD_055	51.13374	1.37031	34	5750	DOVD_2GDK70816_GT055_STN_34_A1_0306	11.10	0.57
17/08/2016	15:53	DOVD_055	51.13382	1.37039	34	5751	DOVD_2GDK70816_GT055_STN_34_A1_0307	11.19	0.49
17/08/2016	15:54	DOVD_055	51.13395	1.37077	34	5752	DOVD_2GDK70816_GT055_STN_34_A1_0308	11.24	0.50
17/08/2016	15:55	DOVD_055	51.13403	1.37092	34	5753	DOVD_2GDK70816_GT055_STN_34_A1_0309	11.17	0.66
17/08/2016	15:56	DOVD_055	51.13405	1.37112	34	5754	DOVD_2GDK70816_GT055_STN_34_A1_0310	11.16	0.51
17/08/2016	15:57	DOVD_055	51.13411	1.37122	34	5755	DOVD_2GDK70816_GT055_STN_34_A1_0311	10.68	1.03
17/08/2016	15:57	DOVD_055	51.13414	1.37127	34	5756	DOVD_2GDK70816_GT055_STN_34_A1_0312	10.61	0.84
17/08/2016	15:57	DOVD_055	51.13424	1.37132	34	5757	DOVD_2GDK70816_GT055_STN_34_A1_0313	10.69	0.51
17/08/2016	16:00	DOVD_055	51.13465	1.37169	34	5758	DOVD_2GDK70816_GT055_STN_34_A1_0314	9.84	1.02
17/08/2016	16:01	DOVD_055	51.13460	1.37200	34	5759	Extra Fix	9.99	0.78
17/08/2016	16:06	DOVD_074	51.13645	1.37693	35	5760	DOVD_2GDK70816_GT074_STN_35_A1_0315	10.78	1.19
17/08/2016	16:06	DOVD_074	51.13648	1.37697	35	5761	DOVD_2GDK70816_GT074_STN_35_A1_0316	11.19	0.47
17/08/2016	16:07	DOVD_074	51.13656	1.37719	35	5762	DOVD_2GDK70816_GT074_STN_35_A1_0317	11.44	0.59
17/08/2016	16:08	DOVD_074	51.13656	1.37727	35	5763	DOVD_2GDK70816_GT074_STN_35_A1_0318	11.78	0.51
17/08/2016	16:10	DOVD_074	51.13673	1.37768	35	5764	DOVD_2GDK70816_GT074_STN_35_A1_0319	11.07	0.54
17/08/2016	16:10	DOVD_074	51.13680	1.37774	35	5765	DOVD_2GDK70816_GT074_STN_35_A1_0320	11.14	0.48
17/08/2016	16:12	DOVD_074	51.13695	1.37803	35	5766	DOVD_2GDK70816_GT074_STN_35_A1_0321	10.47	0.74
17/08/2016	16:14	DOVD_074	51.13731	1.37834	35	5767	DOVD_2GDK70816_GT074_STN_35_A1_0322	10.31	0.98

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	STN number	Hpro fix no.	Still label	Water depth (m)	SOG (knots)
17/08/2016	16:14	DOVD_074	51.13724	1.37844	35	5768	Extra Fix	10.74	1.12
18/08/2016	07:21	DOVD56	51.13889	1.38193	36	5769	DOVD_2GDK70816_GT056_STN_36_A1_0001	12.85	0.83
18/08/2016	07:22	DOVD56	51.13895	1.38196	36	5770	DOVD_2GDK70816_GT056_STN_36_A1_0002	12.46	2.27
18/08/2016	07:22	DOVD56	51.13900	1.38204	36	5771	DOVD_2GDK70816_GT056_STN_36_A1_0003	12.98	0.79
18/08/2016	07:23	DOVD56	51.13905	1.38225	36	5772	DOVD_2GDK70816_GT056_STN_36_A1_0004	13.3	0.76
18/08/2016	07:24	DOVD56	51.13908	1.38232	36	5773	DOVD_2GDK70816_GT056_STN_36_A1_0005	13.76	0.32
18/08/2016	07:25	DOVD56	51.13902	1.38247	36	5774	DOVD_2GDK70816_GT056_STN_36_A1_0006	13.76	0.74
18/08/2016	07:26	DOVD56	51.13924	1.38267	36	5775	DOVD_2GDK70816_GT056_STN_36_A1_0007	13.03	0.73
18/08/2016	07:26	DOVD56	51.13931	1.38278	36	5776	DOVD_2GDK70816_GT056_STN_36_A1_0008	13.11	1.00
18/08/2016	07:27	DOVD56	51.13943	1.38277	36	5777	DOVD_2GDK70816_GT056_STN_36_A1_0009	12.41	1.25
18/08/2016	07:28	DOVD56	51.13956	1.38287	36	5778	Missed image	11.96	0.78
18/08/2016	07:28	DOVD56	51.13967	1.38289	36	5779	Missed image	11.42	0.82
18/08/2016	07:29	DOVD56	51.13973	1.38287	36	5780	Missed image	11.06	0.65
18/08/2016	07:29	DOVD56	51.13981	1.38287	36	5781	Missed image	11.21	0.45
18/08/2016	07:34	DOVD57	51.14223	1.38537	37	5782	DOVD_2GDK70816_GT057_STN_37_A1_0010	9.03	0.77
18/08/2016	07:34	DOVD57	51.14225	1.38547	37	5783	DOVD_2GDK70816_GT057_STN_37_A1_0011	9.55	0.86
18/08/2016	07:34	DOVD57	51.14230	1.38551	37	5784	DOVD_2GDK70816_GT057_STN_37_A1_0012	9.56	1.35
18/08/2016	07:34	DOVD57	51.14233	1.38557	37	5785	DOVD_2GDK70816_GT057_STN_37_A1_0013	10.01	0.84
18/08/2016	07:35	DOVD57	51.14231	1.38570	37	5786	DOVD_2GDK70816_GT057_STN_37_A1_0014	10.18	0.89
18/08/2016	07:35	DOVD57	51.14240	1.38589	37	5787	DOVD_2GDK70816_GT057_STN_37_A1_0015	10.13	0.82
18/08/2016	07:37	DOVD57	51.14251	1.38640	37	5788	DOVD_2GDK70816_GT057_STN_37_A1_0016	11.10	0.75
18/08/2016	07:38	DOVD57	51.14263	1.38651	37	5789	DOVD_2GDK70816_GT057_STN_37_A1_0017	11.21	1.17
18/08/2016	07:38	DOVD57	51.14269	1.38660	37	5790	DOVD_2GDK70816_GT057_STN_37_A1_0018	11.28	1.02
18/08/2016	07:39	DOVD57	51.14284	1.38684	37	5791	DOVD_2GDK70816_GT057_STN_37_A1_0019	11.15	0.94
18/08/2016	07:39	DOVD57	51.14288	1.38683	37	5792	DOVD_2GDK70816_GT057_STN_37_A1_0020	10.63	0.79
18/08/2016	07:40	DOVD57	51.14301	1.38697	37	5793	Missed image	11.02	0.93

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18/08/2016	07:45	DOVD58	51.14559	1.38925	38	5794	DOVD_2GDK70816_GT058_STN_38_A1_0021	8.70	0.88
18/08/2016	07:45	DOVD58	51.14565	1.38927	38	5795	DOVD_2GDK70816_GT058_STN_38_A1_0022	8.60	1.41
18/08/2016	07:45	DOVD58	51.14566	1.38931	38	5796	DOVD_2GDK70816_GT058_STN_38_A1_0023	8.57	1.20
18/08/2016	07:46	DOVD58	51.14584	1.38941	38	5797	DOVD_2GDK70816_GT058_STN_38_A1_0024	8.31	1.26
18/08/2016	07:46	DOVD58	51.14603	1.38939	38	5798	DOVD_2GDK70816_GT058_STN_38_A1_0025	7.99	0.96
18/08/2016	07:47	DOVD58	51.14607	1.38937	38	5799	DOVD_2GDK70816_GT058_STN_38_A1_0026	7.82	0.68
18/08/2016	07:47	DOVD58	51.14616	1.38954	38	5800	DOVD_2GDK70816_GT058_STN_38_A1_0027	8.03	0.90
18/08/2016	07:48	DOVD58	51.14628	1.38986	38	5801	DOVD_2GDK70816_GT058_STN_38_A1_0028	8.89	0.80
18/08/2016	07:49	DOVD58	51.14637	1.38994	38	5802	DOVD_2GDK70816_GT058_STN_38_A1_0029	8.72	1.44
18/08/2016	07:50	DOVD58	51.14647	1.39015	38	5803	Missed image	8.97	1.20
18/08/2016	07:50	DOVD58	51.14650	1.39019	38	5804	Missed image	9.02	1.14
18/08/2016	07:53	DOVD59	51.14722	1.39108	39	5805	DOVD_2GDK70816_GT059_STN_39_A1_0030	8.75	1.08
18/08/2016	07:53	DOVD59	51.14724	1.39113	39	5806	DOVD_2GDK70816_GT059_STN_39_A1_0031	8.70	0.97
18/08/2016	07:53	DOVD59	51.14729	1.39123	39	5807	DOVD_2GDK70816_GT059_STN_39_A1_0032	8.90	0.99
18/08/2016	07:54	DOVD59	51.14743	1.39135	39	5808	DOVD_2GDK70816_GT059_STN_39_A1_0033	8.84	0.85
18/08/2016	07:55	DOVD59	51.14749	1.39144	39	5809	DOVD_2GDK70816_GT059_STN_39_A1_0034	9.22	0.84
18/08/2016	07:55	DOVD59	51.14761	1.39158	39	5810	DOVD_2GDK70816_GT059_STN_39_A1_0035	9.16	0.93
18/08/2016	07:56	DOVD59	51.14762	1.39165	39	5811	DOVD_2GDK70816_GT059_STN_39_A1_0036	9.49	0.62
18/08/2016	07:56	DOVD59	51.14768	1.39178	39	5812	DOVD_2GDK70816_GT059_STN_39_A1_0037	9.37	1.12
18/08/2016	07:57	DOVD59	51.14772	1.39189	39	5813	DOVD_2GDK70816_GT059_STN_39_A1_0038	9.31	0.89
18/08/2016	07:57	DOVD59	51.14781	1.39211	39	5814	DOVD_2GDK70816_GT059_STN_39_A1_0039	9.57	1.07
18/08/2016	07:58	DOVD59	51.14790	1.39219	39	5815	DOVD_2GDK70816_GT059_STN_39_A1_0040	9.98	1.00
18/08/2016	07:58	DOVD59	51.14793	1.39225	39	5816	DOVD_2GDK70816_GT059_STN_39_A1_0041	9.90	0.83
18/08/2016	08:05	DOVD60	51.14946	1.39457	40	5817	DOVD_2GDK70816_GT060_STN_40_A1_0042	10.46	0.94
18/08/2016	08:05	DOVD60	51.14948	1.39459	40	5818	DOVD_2GDK70816_GT060_STN_40_A1_0043	10.49	0.96
18/08/2016	08:07	DOVD60	51.14983	1.39471	40	5819	DOVD_2GDK70816_GT060_STN_40_A1_0044	9.71	1.45

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	STN number	Hpro fix no.	Still label	Water depth (m)	SOG (knots)
18/08/2016	08:07	DOVD60	51.14986	1.39475	40	5820	DOVD_2GDK70816_GT060_STN_40_A1_0045	10.14	1.55
18/08/2016	08:08	DOVD60	51.14988	1.39486	40	5821	DOVD_2GDK70816_GT060_STN_40_A1_0046	10.21	0.74
18/08/2016	08:08	DOVD60	51.14991	1.39495	40	5822	DOVD_2GDK70816_GT060_STN_40_A1_0047	10.20	0.72
18/08/2016	08:09	DOVD60	51.15003	1.39504	40	5823	DOVD_2GDK70816_GT060_STN_40_A1_0048	9.82	0.88
18/08/2016	08:09	DOVD60	51.15014	1.39515	40	5824	DOVD_2GDK70816_GT060_STN_40_A1_0049	9.93	0.84
18/08/2016	08:09	DOVD60	51.15019	1.39518	40	5825	DOVD_2GDK70816_GT060_STN_40_A1_0050	9.60	0.94
18/08/2016	08:10	DOVD60	51.15023	1.39529	40	5826	DOVD_2GDK70816_GT060_STN_40_A1_0051	10.00	0.78
18/08/2016	08:10	DOVD60	51.15035	1.39524	40	5827	DOVD_2GDK70816_GT060_STN_40_A1_0052	10.24	0.74
18/08/2016	08:11	DOVD60	51.15052	1.39544	40	5828	DOVD_2GDK70816_GT060_STN_40_A1_0053	10.10	1.13
18/08/2016	08:11	DOVD60	51.15054	1.39546	40	5829	Missed image	10.29	1.05
18/08/2016	08:17	DOVD62	51.15120	1.39722	41	5830	DOVD_2GDK70816_GT062_STN_41_A1_0054	11.84	0.50
18/08/2016	08:17	DOVD62	51.15124	1.39725	41	5831	DOVD_2GDK70816_GT062_STN_41_A1_0055	11.67	1.41
18/08/2016	08:17	DOVD62	51.15133	1.39729	41	5832	DOVD_2GDK70816_GT062_STN_41_A1_0056	11.76	0.90
18/08/2016	08:18	DOVD62	51.15149	1.39733	41	5833	DOVD_2GDK70816_GT062_STN_41_A1_0057	11.38	0.96
18/08/2016	08:19	DOVD62	51.15163	1.39750	41	5834	DOVD_2GDK70816_GT062_STN_41_A1_0058	11.29	0.93
18/08/2016	08:21	DOVD62	51.15190	1.39784	41	5835	DOVD_2GDK70816_GT062_STN_41_A1_0059	10.71	0.98
18/08/2016	08:21	DOVD62	51.15195	1.39788	41	5836	DOVD_2GDK70816_GT062_STN_41_A1_0060	11.62	1.33
18/08/2016	08:22	DOVD62	51.15221	1.39801	41	5837	DOVD_2GDK70816_GT062_STN_41_A1_0061	11.11	0.91
18/08/2016	08:22	DOVD62	51.15223	1.39805	41	5838	DOVD_2GDK70816_GT062_STN_41_A1_0062	11.15	1.44
18/08/2016	08:22	DOVD62	51.15226	1.39805	41	5839	DOVD_2GDK70816_GT062_STN_41_A1_0063	10.91	0.98
18/08/2016	08:22	DOVD62	51.15228	1.39807	41	5840	DOVD_2GDK70816_GT062_STN_41_A1_0064	11.10	1.02
18/08/2016	08:23	DOVD62	51.15237	1.39820	41	5841	DOVD_2GDK70816_GT062_STN_41_A1_0065	11.20	1.32
18/08/2016	08:23	DOVD62	51.15245	1.39828	41	5842	Missed image	11.08	1.16
18/08/2016	08:23	DOVD62	51.15251	1.39837	41	5843	Missed image	10.33	1.34
18/08/2016	08:26	DOVD61	51.15360	1.39987	42	5844	DOVD_2GDK70816_GT061_STN_42_A1_0066	11.73	1.09
18/08/2016	08:27	DOVD61	51.15363	1.39993	42	5845	DOVD_2GDK70816_GT061_STN_42_A1_0067	11.85	0.79

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	STN number	Hpro fix no.	Still label	Water depth (m)	SOG (knots)
18/08/2016	08:27	DOVD61	51.15363	1.39998	42	5846	DOVD_2GDK70816_GT061_STN_42_A1_0068	11.46	0.96
18/08/2016	08:28	DOVD61	51.15380	1.40017	42	5847	DOVD_2GDK70816_GT061_STN_42_A1_0069	11.37	1.11
18/08/2016	08:29	DOVD61	51.15406	1.40040	42	5848	DOVD_2GDK70816_GT061_STN_42_A1_0070	11.65	1.00
18/08/2016	08:29	DOVD61	51.15414	1.40045	42	5849	DOVD_2GDK70816_GT061_STN_42_A1_0071	11.44	0.78
18/08/2016	08:29	DOVD61	51.15418	1.40047	42	5850	DOVD_2GDK70816_GT061_STN_42_A1_0072	11.4	0.98
18/08/2016	08:30	DOVD61	51.15427	1.40049	42	5851	DOVD_2GDK70816_GT061_STN_42_A1_0073	11.66	0.83
18/08/2016	08:30	DOVD61	51.15432	1.40067	42	5852	DOVD_2GDK70816_GT061_STN_42_A1_0074	11.95	0.97
18/08/2016	08:31	DOVD61	51.15440	1.40072	42	5853	DOVD_2GDK70816_GT061_STN_42_A1_0075	11.64	0.83
18/08/2016	08:31	DOVD61	51.15451	1.40075	42	5854	DOVD_2GDK70816_GT061_STN_42_A1_0076	11.51	1.02
18/08/2016	08:32	DOVD61	51.15460	1.40082	42	5855	DOVD_2GDK70816_GT061_STN_42_A1_0077	11.68	0.70
18/08/2016	08:32	DOVD61	51.15472	1.40089	42	5856	DOVD_2GDK70816_GT061_STN_42_A1_0078	11.28	1.07
18/08/2016	08:34	DOVD64	51.15512	1.40094	43	5857	DOVD_2GDK70816_GT064_STN_43_A1_0079	10.07	0.75
18/08/2016	08:35	DOVD64	51.15526	1.40090	43	5858	DOVD_2GDK70816_GT064_STN_43_A1_0080	10.13	1.03
18/08/2016	08:35	DOVD64	51.15537	1.40089	43	5859	DOVD_2GDK70816_GT064_STN_43_A1_0081	10.14	1.15
18/08/2016	08:35	DOVD64	51.15539	1.40090	43	5860	DOVD_2GDK70816_GT064_STN_43_A1_0082	10.14	1.00
18/08/2016	08:35	DOVD64	51.15545	1.40096	43	5861	DOVD_2GDK70816_GT064_STN_43_A1_0083	10.00	0.78
18/08/2016	08:35	DOVD64	51.15549	1.40096	43	5862	DOVD_2GDK70816_GT064_STN_43_A1_0084	10.22	0.94
18/08/2016	08:36	DOVD64	51.15565	1.40101	43	5863	DOVD_2GDK70816_GT064_STN_43_A1_0085	10.05	1.31
18/08/2016	08:36	DOVD64	51.15574	1.40102	43	5864	DOVD_2GDK70816_GT064_STN_43_A1_0086	9.86	1.33
18/08/2016	08:36	DOVD64	51.15577	1.40104	43	5865	DOVD_2GDK70816_GT064_STN_43_A1_0087	9.48	0.83
18/08/2016	08:36	DOVD64	51.15578	1.40109	43	5866	DOVD_2GDK70816_GT064_STN_43_A1_0088	9.17	0.69
18/08/2016	08:37	DOVD64	51.15586	1.40108	43	5867	DOVD_2GDK70816_GT064_STN_43_A1_0089	9.37	0.67
18/08/2016	08:37	DOVD64	51.15593	1.40109	43	5868	DOVD_2GDK70816_GT064_STN_43_A1_0090	9.10	1.15
18/08/2016	08:37	DOVD64	51.15600	1.40114	43	5869	DOVD_2GDK70816_GT064_STN_43_A1_0091	9.09	1.16
18/08/2016	08:38	DOVD64	51.15621	1.40133	43	5870	DOVD_2GDK70816_GT064_STN_43_A1_0092	9.29	1.24
18/08/2016	08:42	DOVD73	51.15855	1.40321	44	5871	DOVD_2GDK70816_GT073_STN_44_A1_0093	8.97	1.04

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18/08/2016	08:42	DOVD73	51.15857	1.40320	44	5872	DOVD_2GDK70816_GT073_STN_44_A1_0094	8.80	1.04
18/08/2016	08:42	DOVD73	51.15860	1.40320	44	5873	DOVD_2GDK70816_GT073_STN_44_A1_0095	8.69	1.03
18/08/2016	08:43	DOVD73	51.15864	1.40321	44	5874	DOVD_2GDK70816_GT073_STN_44_A1_0096	8.93	0.90
18/08/2016	08:43	DOVD73	51.15883	1.40322	44	5875	DOVD_2GDK70816_GT073_STN_44_A1_0097	8.79	1.11
18/08/2016	08:44	DOVD73	51.15899	1.40325	44	5876	DOVD_2GDK70816_GT073_STN_44_A1_0098	8.44	1.30
18/08/2016	08:44	DOVD73	51.15905	1.40328	44	5877	DOVD_2GDK70816_GT073_STN_44_A1_0099	8.66	1.15
18/08/2016	08:45	DOVD73	51.15928	1.40337	44	5878	DOVD_2GDK70816_GT073_STN_44_A1_0100	8.76	1.40
18/08/2016	08:45	DOVD73	51.15933	1.40339	44	5879	DOVD_2GDK70816_GT073_STN_44_A1_0101	8.59	1.31
18/08/2016	08:45	DOVD73	51.15940	1.40343	44	5880	DOVD_2GDK70816_GT073_STN_44_A1_0102	8.89	1.23
18/08/2016	08:45	DOVD73	51.15945	1.40342	44	5881	DOVD_2GDK70816_GT073_STN_44_A1_0103	8.38	1.13
18/08/2016	08:45	DOVD73	51.15953	1.40341	44	5882	DOVD_2GDK70816_GT073_STN_44_A1_0104	8.73	1.05
18/08/2016	08:46	DOVD73	51.15958	1.40342	44	5883	DOVD_2GDK70816_GT073_STN_44_A1_0105	8.79	1.04
18/08/2016	08:46	DOVD73	51.15973	1.40344	44	5884	DOVD_2GDK70816_GT073_STN_44_A1_0106	8.81	1.17
18/08/2016	08:46	DOVD73	51.15975	1.40343	44	5885	DOVD_2GDK70816_GT073_STN_44_A1_0107	8.94	1.07
18/08/2016	08:52	DOVD63	51.16185	1.40736	45	5886	DOVD_2GDK70816_GT063_STN_45_A1_0108	12.16	0.98
18/08/2016	08:52	DOVD63	51.16209	1.40739	45	5887	DOVD_2GDK70816_GT063_STN_45_A1_0109	11.97	0.95
18/08/2016	08:53	DOVD63	51.16220	1.40740	45	5888	DOVD_2GDK70816_GT063_STN_45_A1_0110	12.06	1.02
18/08/2016	08:53	DOVD63	51.16239	1.40739	45	5889	DOVD_2GDK70816_GT063_STN_45_A1_0111	11.57	1.18
18/08/2016	08:54	DOVD63	51.16245	1.40741	45	5890	DOVD_2GDK70816_GT063_STN_45_A1_0112	11.39	1.06
18/08/2016	08:54	DOVD63	51.16267	1.40744	45	5891	DOVD_2GDK70816_GT063_STN_45_A1_0113	10.85	0.92
18/08/2016	08:55	DOVD63	51.16273	1.40745	45	5892	DOVD_2GDK70816_GT063_STN_45_A1_0114	10.96	0.91
18/08/2016	08:55	DOVD63	51.16276	1.40742	45	5893	DOVD_2GDK70816_GT063_STN_45_A1_0115	11.08	0.82
18/08/2016	08:55	DOVD63	51.16284	1.40742	45	5894	DOVD_2GDK70816_GT063_STN_45_A1_0116	11.01	1.19
18/08/2016	08:55	DOVD63	51.16299	1.40748	45	5895	DOVD_2GDK70816_GT063_STN_45_A1_0117	10.96	1.38
18/08/2016	08:56	DOVD63	51.16302	1.40749	45	5896	DOVD_2GDK70816_GT063_STN_45_A1_0118	10.97	1.23
18/08/2016	08:56	DOVD63	51.16310	1.40755	45	5897	DOVD_2GDK70816_GT063_STN_45_A1_0119	10.87	0.81

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18/08/2016	08:56	DOVD63	51.16312	1.40758	45	5898	Missed image	10.43	0.74
18/08/2016	08:56	DOVD63	51.16316	1.40757	45	5899	Missed image	10.83	0.80
18/08/2016	08:58	DOVD75	51.16361	1.40774	46	5900	DOVD_2GDK70816_GT075_STN_46_A1_0120	11.20	0.84
18/08/2016	08:58	DOVD75	51.16368	1.40781	46	5901	DOVD_2GDK70816_GT075_STN_46_A1_0121	10.98	1.13
18/08/2016	08:59	DOVD75	51.16379	1.40804	46	5902	DOVD_2GDK70816_GT075_STN_46_A1_0122	11.28	0.96
18/08/2016	09:00	DOVD75	51.16386	1.40814	46	5903	DOVD_2GDK70816_GT075_STN_46_A1_0123	11.82	0.86
18/08/2016	09:01	DOVD75	51.16415	1.40840	46	5904	DOVD_2GDK70816_GT075_STN_46_A1_0124	11.98	0.92
18/08/2016	09:01	DOVD75	51.16418	1.40843	46	5905	DOVD_2GDK70816_GT075_STN_46_A1_0125	11.79	0.67
18/08/2016	09:01	DOVD75	51.16421	1.40847	46	5906	DOVD_2GDK70816_GT075_STN_46_A1_0126	11.97	0.83
18/08/2016	09:01	DOVD75	51.16428	1.40850	46	5907	DOVD_2GDK70816_GT075_STN_46_A1_0127	11.92	0.84
18/08/2016	09:02	DOVD75	51.16441	1.40868	46	5908	DOVD_2GDK70816_GT075_STN_46_A1_0128	12.45	1.27
18/08/2016	09:03	DOVD75	51.16457	1.40894	46	5909	DOVD_2GDK70816_GT075_STN_46_A1_0129	12.46	1.10
18/08/2016	09:03	DOVD75	51.16460	1.40894	46	5910	Missed image	12.63	0.99
18/08/2016	09:05	DOVD65	51.16516	1.40953	47	5911	DOVD_2GDK70816_GT065_STN_47_A1_0130	13.56	1.23
18/08/2016	09:05	DOVD65	51.16523	1.40962	47	5912	DOVD_2GDK70816_GT065_STN_47_A1_0131	13.62	1.22
18/08/2016	09:07	DOVD65	51.16581	1.41031	47	5913	DOVD_2GDK70816_GT065_STN_47_A1_0132	14.88	0.91
18/08/2016	09:08	DOVD65	51.16581	1.41034	47	5914	DOVD_2GDK70816_GT065_STN_47_A1_0133	15.10	0.96
18/08/2016	09:08	DOVD65	51.16586	1.41041	47	5915	DOVD_2GDK70816_GT065_STN_47_A1_0134	15.28	0.82
18/08/2016	09:13	DOVD66	51.16869	1.41104	48	5916	DOVD_2GDK70816_GT066_STN_48_A1_0135	12.89	1.21
18/08/2016	09:13	DOVD66	51.16877	1.41105	48	5917	DOVD_2GDK70816_GT066_STN_48_A1_0136	12.94	1.23
18/08/2016	09:14	DOVD66	51.16896	1.41101	48	5918	DOVD_2GDK70816_GT066_STN_48_A1_0137	12.76	1.20
18/08/2016	09:14	DOVD66	51.16904	1.41105	48	5919	DOVD_2GDK70816_GT066_STN_48_A1_0138	12.62	1.23
18/08/2016	09:15	DOVD66	51.16933	1.41116	48	5920	DOVD_2GDK70816_GT066_STN_48_A1_0139	12.80	1.21
18/08/2016	09:15	DOVD66	51.16939	1.41120	48	5921	DOVD_2GDK70816_GT066_STN_48_A1_0140	12.80	1.45
18/08/2016	09:15	DOVD66	51.16949	1.41125	48	5922	DOVD_2GDK70816_GT066_STN_48_A1_0141	12.88	1.12
18/08/2016	09:15	DOVD66	51.16956	1.41126	48	5923	DOVD_2GDK70816_GT066_STN_48_A1_0142	12.59	1.05

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18/08/2016	09:16	DOVD66	51.16964	1.41128	48	5924	DOVD_2GDK70816_GT066_STN_48_A1_0143	12.63	1.28
18/08/2016	09:16	DOVD66	51.16976	1.41133	48	5925	DOVD_2GDK70816_GT066_STN_48_A1_0144	12.63	1.31
18/08/2016	09:16	DOVD66	51.16983	1.41136	48	5926	DOVD_2GDK70816_GT066_STN_48_A1_0145	12.80	1.09
18/08/2016	09:17	DOVD66	51.16991	1.41144	48	5927	DOVD_2GDK70816_GT066_STN_48_A1_0146	12.97	1.22
18/08/2016	09:17	DOVD66	0.00000	0.00000	-	-	DOVD_2GDK70816_GT066_STN_48_A1_0147	13.01	0.99
18/08/2016	09:17	DOVD67	51.16995	1.41150	49	5928	DOVD_2GDK70816_GT067_STN_49_A1_0148	13.01	0.99
18/08/2016	09:21	DOVD67	51.17196	1.41288	49	5929	DOVD_2GDK70816_GT067_STN_49_A1_0149	13.64	1.43
18/08/2016	09:22	DOVD70	51.17215	1.41285	50	5930	DOVD_2GDK70816_GT070_STN_50_A1_0150	13.37	1.27
18/08/2016	09:38	DOVD70	51.18880	1.41017	50	5931	DOVD_2GDK70816_GT070_STN_50_A1_0151	7.90	1.45
18/08/2016	09:39	DOVD70	51.18889	1.41011	50	5932	DOVD_2GDK70816_GT070_STN_50_A1_0152	7.83	1.54
18/08/2016	09:39	DOVD70	51.18908	1.41002	50	5933	DOVD_2GDK70816_GT070_STN_50_A1_0153	7.95	1.84
18/08/2016	09:39	DOVD70	51.18919	1.40996	50	5934	DOVD_2GDK70816_GT070_STN_50_A1_0154	8.22	1.52
18/08/2016	09:39	DOVD70	51.18927	1.40993	50	5935	DOVD_2GDK70816_GT070_STN_50_A1_0155	8.22	1.44
18/08/2016	09:40	DOVD70	51.18933	1.40988	50	5936	DOVD_2GDK70816_GT070_STN_50_A1_0156	8.24	1.32
18/08/2016	09:40	DOVD70	51.18939	1.40986	50	5937	DOVD_2GDK70816_GT070_STN_50_A1_0157	8.22	1.31
18/08/2016	09:40	DOVD70	51.18945	1.40981	50	5938	DOVD_2GDK70816_GT070_STN_50_A1_0158	7.98	1.34
18/08/2016	09:40	DOVD70	51.18951	1.40975	50	5939	DOVD_2GDK70816_GT070_STN_50_A1_0159	7.88	1.19
18/08/2016	09:41	DOVD70	51.18961	1.40970	50	5940	DOVD_2GDK70816_GT070_STN_50_A1_0160	7.80	1.09
18/08/2016	09:41	DOVD70	51.18971	1.40961	50	5941	DOVD_2GDK70816_GT070_STN_50_A1_0161	8.01	1.02
18/08/2016	09:41	DOVD70	51.18981	1.40956	50	5942	DOVD_2GDK70816_GT070_STN_50_A1_0162	7.99	0.97
18/08/2016	09:41	DOVD70	51.18985	1.40955	50	5943	DOVD_2GDK70816_GT070_STN_50_A1_0163	7.87	0.97
18/08/2016	09:42	DOVD70	51.18995	1.40948	50	5944	Missed image	7.64	1.02
18/08/2016	09:42	DOVD70	51.18998	1.40946	50	5945	Missed image	7.86	0.99
18/08/2016	09:46	DOVD71	51.19523	1.41085	51	5946	DOVD_2GDK70816_GT071_STN_51_A1_0164	9.55	1.37
18/08/2016	09:47	DOVD71	51.19530	1.41082	51	5947	DOVD_2GDK70816_GT071_STN_51_A1_0165	9.49	1.42
18/08/2016	09:47	DOVD71	51.19542	1.41076	51	5948	DOVD_2GDK70816_GT071_STN_51_A1_0166	9.37	1.33

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18/08/2016	09:47	DOVD71	51.19553	1.41067	51	5949	DOVD_2GDK70816_GT071_STN_51_A1_0167	9.54	1.25
18/08/2016	09:47	DOVD71	51.19559	1.41065	51	5950	DOVD_2GDK70816_GT071_STN_51_A1_0168	9.46	1.24
18/08/2016	09:48	DOVD71	51.19578	1.41056	51	5951	DOVD_2GDK70816_GT071_STN_51_A1_0169	9.30	1.19
18/08/2016	09:49	DOVD71	51.19595	1.41046	51	5952	DOVD_2GDK70816_GT071_STN_51_A1_0170	9.13	1.12
18/08/2016	09:50	DOVD71	51.19626	1.41033	51	5953	Missed image	8.88	1.13
18/08/2016	09:50	DOVD71	51.19645	1.41026	51	5954	Missed image	9.08	1.13
18/08/2016	09:51	DOVD71	51.19680	1.41011	51	5955	Missed image	8.66	1.16
18/08/2016	09:52	DOVD72	51.19705	1.41001	52	5956	DOVD_2GDK70816_GT072_STN_52_A1_0171	8.59	1.27
18/08/2016	09:57	DOVD72	51.19570	1.40906	52	5957	DOVD_2GDK70816_GT072_STN_52_A1_0172	8.97	1.19
18/08/2016	09:57	DOVD72	51.19577	1.40901	52	5958	DOVD_2GDK70816_GT072_STN_52_A1_0173	8.94	1.33
18/08/2016	09:57	DOVD72	51.19579	1.40899	52	5959	DOVD_2GDK70816_GT072_STN_52_A1_0174	8.83	1.19
18/08/2016	09:57	DOVD72	51.19588	1.40892	52	5960	DOVD_2GDK70816_GT072_STN_52_A1_0175	11.49	1.20
18/08/2016	09:58	DOVD72	51.19608	1.40883	52	5961	DOVD_2GDK70816_GT072_STN_52_A1_0176	8.53	1.18
18/08/2016	09:58	DOVD72	51.19611	1.40881	52	5962	DOVD_2GDK70816_GT072_STN_52_A1_0177	8.65	1.26
18/08/2016	09:58	DOVD72	51.19615	1.40880	52	5963	DOVD_2GDK70816_GT072_STN_52_A1_0178	8.57	1.20
18/08/2016	09:59	DOVD72	51.19635	1.40866	52	5964	DOVD_2GDK70816_GT072_STN_52_A1_0179	8.59	1.13
18/08/2016	09:59	DOVD72	51.19643	1.40865	52	5965	DOVD_2GDK70816_GT072_STN_52_A1_0180	8.73	1.20
18/08/2016	09:59	DOVD72	51.19649	1.40866	52	5966	DOVD_2GDK70816_GT072_STN_52_A1_0181	8.73	0.92
18/08/2016	10:00	DOVD72	51.19671	1.40854	52	5967	DOVD_2GDK70816_GT072_STN_52_A1_0182	8.75	1.10
18/08/2016	10:00	DOVD72	51.19677	1.40854	52	5968	DOVD_2GDK70816_GT072_STN_52_A1_0183	8.88	1.16
18/08/2016	10:01	DOVD72	51.19684	1.40851	52	5969	Missed image	8.46	1.09
18/08/2016	10:05	DOVD78	51.19750	1.40965	53	5970	DOVD_2GDK70816_GT078_STN_53_A1_0184	9.37	1.13
18/08/2016	10:05	DOVD78	51.19766	1.40962	53	5971	DOVD_2GDK70816_GT078_STN_53_A1_0185	9.02	1.18
18/08/2016	10:05	DOVD78	51.19775	1.40958	53	5972	DOVD_2GDK70816_GT078_STN_53_A1_0186	8.87	1.27
18/08/2016	10:06	DOVD78	51.19779	1.40958	53	5973	DOVD_2GDK70816_GT078_STN_53_A1_0187	9.12	1.35
18/08/2016	10:06	DOVD78	51.19787	1.40954	53	5974	DOVD_2GDK70816_GT078_STN_53_A1_0188	8.88	1.17

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	STN number	Hpro fix no.	Still label	Water depth (m)	SOG (knots)
18/08/2016	10:06	DOVD78	51.19799	1.40948	53	5975	DOVD_2GDK70816_GT078_STN_53_A1_0189	8.99	1.25
18/08/2016	10:07	DOVD78	51.19814	1.40942	53	5976	DOVD_2GDK70816_GT078_STN_53_A1_0190	8.81	1.09
18/08/2016	10:07	DOVD78	51.19826	1.40939	53	5977	DOVD_2GDK70816_GT078_STN_53_A1_0191	9.07	1.08
18/08/2016	10:08	DOVD78	51.19841	1.40933	53	5978	DOVD_2GDK70816_GT078_STN_53_A1_0192	9.02	1.19
18/08/2016	10:08	DOVD78	51.19850	1.40930	53	5979	DOVD_2GDK70816_GT078_STN_53_A1_0193	8.74	1.17
18/08/2016	10:08	DOVD78	51.19860	1.40926	53	5980	DOVD_2GDK70816_GT078_STN_53_A1_0194	9.28	1.36
18/08/2016	10:09	DOVD78	51.19876	1.40921	53	5981	Missed image	8.73	1.13
18/08/2016	10:09	DOVD78	51.19885	1.40920	53	5982	Missed image	8.85	1.05
18/08/2016	10:09	DOVD78	51.19893	1.40915	53	5983	Missed image	8.55	1.08
18/08/2016	10:14	DOVD76	51.19858	1.41198	54	5984	DOVD_2GDK70816_GT076_STN_54_A1_0195	11.68	1.83
18/08/2016	10:15	DOVD76	51.19896	1.41186	54	5985	DOVD_2GDK70816_GT076_STN_54_A1_0196	10.69	1.78
18/08/2016	10:15	DOVD76	51.19907	1.41181	54	5986	DOVD_2GDK70816_GT076_STN_54_A1_0197	10.85	1.78
18/08/2016	10:15	DOVD76	51.19915	1.41178	54	5987	DOVD_2GDK70816_GT076_STN_54_A1_0198	10.87	1.75
18/08/2016	10:15	DOVD76	51.19927	1.41173	54	5988	DOVD_2GDK70816_GT076_STN_54_A1_0199	10.65	1.65
18/08/2016	10:16	DOVD76	51.19938	1.41169	54	5989	DOVD_2GDK70816_GT076_STN_54_A1_0200	10.61	1.72
18/08/2016	10:16	DOVD76	51.19962	1.41159	54	5990	DOVD_2GDK70816_GT076_STN_54_A1_0201	10.92	1.45
18/08/2016	10:16	DOVD76	51.19968	1.41157	54	5991	DOVD_2GDK70816_GT076_STN_54_A1_0202	10.56	1.65
18/08/2016	10:17	DOVD76	51.19992	1.41148	54	5992	DOVD_2GDK70816_GT076_STN_54_A1_0203	10.83	1.38
18/08/2016	10:17	DOVD76	51.20005	1.41142	54	5993	Missed image	10.71	1.41
18/08/2016	10:22	DOVD77	51.20059	1.41321	55	5994	DOVD_2GDK70816_GT077_STN_55_A1_0204	12.52	1.94
18/08/2016	10:23	DOVD77	51.20094	1.41297	55	5995	Missed image	11.57	1.90
18/08/2016	10:27	DOVD79	51.20324	1.41258	56	5996	DOVD_2GDK70816_GT079_STN_56_A1_0205	11.37	2.13
18/08/2016	10:27	DOVD79	51.20362	1.41260	56	5997	DOVD_2GDK70816_GT079_STN_56_A1_0206	11.34	2.14
18/08/2016	10:33	DOVD83	51.20842	1.41922	57	5998	DOVD_2GDK70816_GT083_STN_57_A1_0207	11.77	2.35
18/08/2016	10:34	DOVD83	51.20892	1.41912	57	5999	DOVD_2GDK70816_GT083_STN_57_A1_0208	11.80	1.77
18/08/2016	10:36	DOVD83	51.21029	1.41884	57	6000	DOVD_2GDK70816_GT083_STN_57_A1_0209	12.43	1.89

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	STN number	Hpro fix no.	Still label	Water depth (m)	SOG (knots)
18/08/2016	10:42	DOVD86	51.21817	1.41422	58	6001	DOVD_2GDK70816_GT086_STN_58_A1_0210	11.28	2.43
18/08/2016	10:42	DOVD86	51.21854	1.41393	58	6002	DOVD_2GDK70816_GT086_STN_58_A1_0211	10.89	2.18
18/08/2016	10:43	DOVD86	51.21894	1.41379	58	6003	DOVD_2GDK70816_GT086_STN_58_A1_0212	10.89	1.89
18/08/2016	10:44	DOVD86	51.21916	1.41373	58	6004	DOVD_2GDK70816_GT086_STN_58_A1_0213	10.70	1.77
18/08/2016	11:42	DOVD68	51.15905	1.40030	59	6005	DOVD_2GDK70816_GT068_STN_59_A1_0214	7.43	0.62
18/08/2016	11:44	DOVD68	51.15903	1.40064	59	6006	DOVD_2GDK70816_GT068_STN_59_A1_0215	8.44	0.45
18/08/2016	11:44	DOVD68	51.15900	1.40064	59	6007	DOVD_2GDK70816_GT068_STN_59_A1_0216	8.27	0.43
18/08/2016	11:44	DOVD68	51.15899	1.40071	59	6008	DOVD_2GDK70816_GT068_STN_59_A1_0217	8.19	0.65
18/08/2016	11:44	DOVD68	51.15900	1.40077	59	6009	DOVD_2GDK70816_GT068_STN_59_A1_0218	8.26	0.70
18/08/2016	11:47	DOVD68	51.15760	1.39941	59	6010	DOVD_2GDK70816_GT068_STN_59_A1_0219	7.02	0.39
18/08/2016	11:48	DOVD68	51.15751	1.39943	59	6011	DOVD_2GDK70816_GT068_STN_59_A1_0220	6.96	1.23
18/08/2016	11:49	DOVD68	51.15742	1.39925	59	6012	DOVD_2GDK70816_GT068_STN_59_A1_0221	6.88	0.60
18/08/2016	11:49	DOVD68	51.15748	1.39928	59	6013	DOVD_2GDK70816_GT068_STN_59_A1_0222	6.69	2.92
18/08/2016	11:49	DOVD68	51.15754	1.39924	59	6014	DOVD_2GDK70816_GT068_STN_59_A1_0223	6.80	0.85
18/08/2016	11:49	DOVD68	51.15751	1.39925	59	6015	DOVD_2GDK70816_GT068_STN_59_A1_0224	6.84	1.18
18/08/2016	11:49	DOVD68	51.15751	1.39921	59	6016	DOVD_2GDK70816_GT068_STN_59_A1_0225	6.77	0.42
18/08/2016	11:50	DOVD68	51.15748	1.39917	59	6017	DOVD_2GDK70816_GT068_STN_59_A1_0226	6.60	0.41
18/08/2016	11:50	DOVD68	51.15742	1.39911	59	6018	DOVD_2GDK70816_GT068_STN_59_A1_0227	6.91	1.05
18/08/2016	11:50	DOVD68	51.15739	1.39906	59	6019	DOVD_2GDK70816_GT068_STN_59_A1_0228	6.85	0.94
18/08/2016	11:54	DOVD69	51.15551	1.39772	60	6020	DOVD_2GDK70816_GT069_STN_60_A1_0229	7.98	1.57
18/08/2016	11:54	DOVD69	51.15548	1.39770	60	6021	DOVD_2GDK70816_GT069_STN_60_A1_0230	8.02	0.47
18/08/2016	11:54	DOVD69	51.15551	1.39764	60	6022	DOVD_2GDK70816_GT069_STN_60_A1_0231	8.05	0.26
18/08/2016	11:55	DOVD69	51.15548	1.39760	60	6023	DOVD_2GDK70816_GT069_STN_60_A1_0232	8.02	1.05
18/08/2016	11:55	DOVD69	51.15541	1.39760	60	6024	DOVD_2GDK70816_GT069_STN_60_A1_0233	8.01	0.88
18/08/2016	11:55	DOVD69	51.15538	1.39759	60	6025	DOVD_2GDK70816_GT069_STN_60_A1_0234	7.83	0.58
18/08/2016	11:56	DOVD69	51.15538	1.39756	60	6026	DOVD_2GDK70816_GT069_STN_60_A1_0235	7.54	0.32

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	STN number	Hpro fix no.	Still label	Water depth (m)	SOG (knots)
18/08/2016	11:56	DOVD69	51.15540	1.39753	60	6027	DOVD_2GDK70816_GT069_STN_60_A1_0236	7.40	0.88
18/08/2016	11:56	DOVD69	51.15530	1.39753	60	6028	Missed image	7.33	0.00
18/08/2016	12:04	DOVD60_A2	51.14965	1.39463	61	6029	DOVD_2GDK70816_GT060_STN_61_A2_0237	13.61	1.81
18/08/2016	12:05	DOVD60_A2	51.14997	1.39492	61	6030	DOVD_2GDK70816_GT060_STN_61_A2_0238	13.31	1.70
18/08/2016	12:05	DOVD60_A2	51.15013	1.39504	61	6031	DOVD_2GDK70816_GT060_STN_61_A2_0239	12.96	1.79
18/08/2016	12:06	DOVD60_A2	51.15028	1.39516	61	6032	DOVD_2GDK70816_GT060_STN_61_A2_0240	13.07	1.64
18/08/2016	-	DOVD60_A2	0.00000	0.00000	-	-	DOVD_2GDK70816_GT060_STN_61_A2_0241	-	-
18/08/2016	-	DOVD60_A2	0.00000	0.00000	-	-	DOVD_2GDK70816_GT060_STN_61_A2_0242	-	-
18/08/2016	12:06	DOVD54_A2	51.15057	1.39539	62	6033	DOVD_2GDK70816_GT054_STN_62_A2_0243	12.77	1.59
18/08/2016	12:30	DOVD54_A2	51.13059	1.36190	62	6034	DOVD_2GDK70816_GT054_STN_62_A2_0244	17.71	0.42
18/08/2016	12:30	DOVD54_A2	51.13056	1.36206	62	6035	DOVD_2GDK70816_GT054_STN_62_A2_0245	17.38	1.01
18/08/2016	12:30	DOVD54_A2	51.13067	1.36212	62	6036	DOVD_2GDK70816_GT054_STN_62_A2_0246	17.18	1.10
18/08/2016	12:31	DOVD54_A2	51.13083	1.36245	62	6037	DOVD_2GDK70816_GT054_STN_62_A2_0247	17.00	1.21
18/08/2016	12:32	DOVD54_A2	51.13083	1.36259	62	6038	DOVD_2GDK70816_GT054_STN_62_A2_0248	17.20	1.16
18/08/2016	12:32	DOVD54_A2	51.13083	1.36265	62	6039	DOVD_2GDK70816_GT054_STN_62_A2_0249	17.17	0.97
18/08/2016	12:32	DOVD54_A2	51.13084	1.36270	62	6040	DOVD_2GDK70816_GT054_STN_62_A2_0250	17.05	0.97
18/08/2016	12:32	DOVD54_A2	51.13087	1.36290	62	6041	DOVD_2GDK70816_GT054_STN_62_A2_0251	17.22	0.78
18/08/2016	12:33	DOVD54_A2	51.13087	1.36300	62	6042	DOVD_2GDK70816_GT054_STN_62_A2_0252	17.36	0.93
18/08/2016	12:33	DOVD54_A2	51.13094	1.36315	62	6043	DOVD_2GDK70816_GT054_STN_62_A2_0253	17.27	1.21
18/08/2016	12:33	DOVD54_A2	51.13098	1.36324	62	6044	DOVD_2GDK70816_GT054_STN_62_A2_0254	17.02	1.26
18/08/2016	12:34	DOVD54_A2	51.13105	1.36338	62	6045	DOVD_2GDK70816_GT054_STN_62_A2_0255	16.97	1.37
18/08/2016	12:34	DOVD54_A2	51.13117	1.36355	62	6046	DOVD_2GDK70816_GT054_STN_62_A2_0256	16.54	1.36
18/08/2016	12:34	DOVD54_A2	51.13126	1.36368	62	6047	DOVD_2GDK70816_GT054_STN_62_A2_0257	16.27	1.49
18/08/2016	12:34	DOVD54_A2	51.13134	1.36378	62	6048	Missed image	15.97	1.46
18/08/2016	12:35	DOVD54_A2	51.13155	1.36400	62	6049	Missed image	15.07	1.55
18/08/2016	12:40	DOVD53_A2	51.13025	1.36143	63	6050	DOVD_2GDK70816_GT053_STN_63_A2_0258	17.94	1.03

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	STN number	Hpro fix no.	Still label	Water depth (m)	SOG (knots)
18/08/2016	12:40	DOVD53_A2	51.13022	1.36133	63	6051	DOVD_2GDK70816_GT053_STN_63_A2_0259	17.83	1.02
18/08/2016	12:41	DOVD53_A2	51.13021	1.36127	63	6052	DOVD_2GDK70816_GT053_STN_63_A2_0260	17.63	1.13
18/08/2016	12:41	DOVD53_A2	51.13020	1.36120	63	6053	DOVD_2GDK70816_GT053_STN_63_A2_0261	17.73	1.08
18/08/2016	12:41	DOVD53_A2	51.13018	1.36101	63	6054	DOVD_2GDK70816_GT053_STN_63_A2_0262	17.65	1.11
18/08/2016	12:42	DOVD53_A2	51.13018	1.36079	63	6055	DOVD_2GDK70816_GT053_STN_63_A2_0263	17.48	1.18
18/08/2016	12:42	DOVD53_A2	51.13018	1.36065	63	6056	DOVD_2GDK70816_GT053_STN_63_A2_0264	17.32	1.23
18/08/2016	12:44	DOVD53_A2	51.13021	1.35957	63	6057	Missed image	15.93	1.28

7.8 Grab survey metadata

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	Cefas STN Number	Hydropro Fix Number	Water Depth (m)	Sediment depth in grab (cm)	Sediment use
24/08/2016	08:03	DOVD31	51.22573	1.42260	117	5541	9.38	7	Biota
24/08/2016	08:08	DOVD31	51.22569	1.42250	117	5542	8.78	1	Discarded
24/08/2016	08:10	DOVD31	51.22573	1.42271	117	5543	9.19	6.5	PSA
24/08/2016	08:16	DOVD49	51.22195	1.41575	118	5544	8.93	-	Discarded
24/08/2016	08:17	DOVD49	51.22180	1.41585	118	5545	8.72	5	PSA
24/08/2016	08:21	DOVD49	51.22187	1.41588	118	5546	8.74	-	Discarded
24/08/2016	08:23	DOVD49	51.22183	1.41585	118	5547	8.73	5	Biota
24/08/2016	08:28	DOVD30	51.21770	1.42077	119	5548	7.84	7	PSA
24/08/2016	08:32	DOVD30	51.21772	1.42102	119	5549	7.56	6	Biota
24/08/2016	08:39	DOVD45	51.20894	1.42600	120	5550	14.33	-	Discarded
24/08/2016	08:41	DOVD45	51.20887	1.42626	120	5551	14.44	-	Discarded
24/08/2016	08:42	DOVD45	51.20886	1.42614	120	5552	14.44	-	Discarded
24/08/2016	08:47	DOVD29	51.20783	1.42177	121	5553	9.57	5	PSA
24/08/2016	08:50	DOVD29	51.20775	1.42180	121	5554	8.96	6	Biota
24/08/2016	08:54	DOVD44	51.20544	1.42069	122	5555	8.61	-	Discarded
24/08/2016	08:55	DOVD44	51.20527	1.42072	122	5556	8.13	-	Discarded
24/08/2016	08:57	DOVD44	51.20530	1.42078	122	5557	8.61	-	Discarded
24/08/2016	09:00	DOVD28	51.20182	1.41859	123	5558	8.99	7	PSA
24/08/2016	09:04	DOVD28	51.20169	1.41853	123	5559	9.19	4.5	Discarded
24/08/2016	09:07	DOVD28	51.20172	1.41849	123	5560	8.69	6	Biota
24/08/2016	09:13	DOVD40	51.19485	1.42900	124	5561	15.13	-	Discarded
24/08/2016	09:15	DOVD40	51.19489	1.42889	124	5562	15.09	-	Discarded

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	Cefas STN Number	Hydropro Fix Number	Water Depth (m)	Sediment depth in grab (cm)	Sediment use
24/08/2016	09:18	DOVD40	51.19482	1.42913	124	5563	15.91	-	Discarded
24/08/2016	09:22	DOVD43	51.19455	1.42165	125	5564	10.55	-	Discarded
24/08/2016	09:24	DOVD43	51.19456	1.42170	125	5565	10.76	4	PSA
24/08/2016	09:27	DOVD43	51.19459	1.42185	125	5566	10.82	2	Discarded
24/08/2016	09:30	DOVD43	51.19446	1.42194	125	5567	10.69	3	Discarded
24/08/2016	09:34	DOVD32	51.19317	1.42191	126	5568	10.88	4.5	PSA
24/08/2016	09:39	DOVD32	51.19320	1.42187	126	5569	10.97	6	Biota
24/08/2016	09:42	DOVD23	51.19507	1.41657	127	5570	8.15	7	PSA
24/08/2016	09:46	DOVD23	51.19506	1.41684	127	5571	8.23	3.5	Discarded
24/08/2016	09:48	DOVD23	51.19510	1.41673	127	5572	8.01	5	Biota
24/08/2016	09:53	DOVD24	51.19270	1.41262	128	5573	6.01	4.5	PSA
24/08/2016	09:56	DOVD24	51.19277	1.41260	128	5574	6.10	-	Discarded
24/08/2016	09:58	DOVD24	51.19269	1.41236	128	5575	6.27	-	Discarded
24/08/2016	09:59	DOVD24	51.19261	1.41268	128	5576	6.50	6	Biota
24/08/2016	10:04	DOVD26	51.19139	1.41673	129	5577	8.84	8	PSA
24/08/2016	10:08	DOVD26	51.19162	1.41689	129	5578	8.74	5	Biota
24/08/2016	10:12	DOVD24	51.19268	1.41234	128	5579	6.08	-	Contaminants
24/08/2016	10:15	DOVD24	51.19270	1.41253	128	5580	6.07	-	Contaminants
24/08/2016	10:19	DOVD24	51.19268	1.41256	128	5581	6.39	-	Contaminants
24/08/2016	10:22	DOVD24	51.19261	1.41251	128	5582	6.69	-	Discarded
24/08/2016	10:23	DOVD24	51.19273	1.41272	128	5583	6.45	-	Contaminants
24/08/2016	10:26	DOVD24	51.19265	1.41242	128	5584	6.37	-	Contaminants
24/08/2016	10:28	DOVD24	51.19275	1.41264	128	5585	6.25	-	Contaminants
24/08/2016	10:32	DOVD24	51.19255	1.41215	128	5586	6.22	-	Salinity

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	Cefas STN Number	Hydropro Fix Number	Water Depth (m)	Sediment depth in grab (cm)	Sediment use
24/08/2016	10:37	DOVD27	51.18809	1.41373	130	5587	7.15	-	Discarded
24/08/2016	10:39	DOVD27	51.18801	1.41372	130	5588	8.61	-	Discarded
24/08/2016	10:40	DOVD27	51.18783	1.41392	130	5589	7.19	7.0	Biota
24/08/2016	10:43	DOVD27	51.18802	1.41388	130	5590	7.26	4.5	PSA
24/08/2016	10:48	DOVD22	51.18611	1.41623	131	5591	8.57	-	Discarded
24/08/2016	10:50	DOVD22	51.18614	1.41619	131	5592	8.58	5.0	Biota
24/08/2016	10:53	DOVD22	51.18617	1.41621	131	5593	8.57	2.0	Discarded
24/08/2016	10:55	DOVD22	51.18609	1.41635	131	5594	8.79	6.0	PSA
24/08/2016	11:00	DOVD34	51.18736	1.42520	132	5595	15.32	-	Discarded
24/08/2016	11:02	DOVD34	51.18726	1.42499	132	5596	15.58	-	Discarded
24/08/2016	11:04	DOVD34	51.18733	1.42506	132	5597	15.20	-	Discarded
24/08/2016	11:09	DOVD33	51.18351	1.42179	133	5598	15.81	-	Discarded
24/08/2016	11:11	DOVD33	51.18351	1.42164	133	5599	15.87	-	Discarded
24/08/2016	11:12	DOVD33	51.18351	1.42182	133	5600	15.71	-	Discarded
24/08/2016	11:16	DOVD21	51.18260	1.41813	134	5601	11.67	-	Discarded
24/08/2016	11:17	DOVD21	51.18266	1.41834	134	5602	12.28	5.0	PSA
24/08/2016	11:22	DOVD21	51.18266	1.41832	134	5603	12.20	5.0	Biota
24/08/2016	11:26	DOVD20	51.17879	1.41637	135	5604	11.75	2.0	Discarded
24/08/2016	11:28	DOVD20	51.17886	1.41652	135	5605	13.03	5.0	PSA
24/08/2016	11:33	DOVD20	51.17887	1.41652	135	5606	12.20	4.0	Discarded
24/08/2016	11:34	DOVD20	51.17884	1.41648	135	5607	12.14	-	Discarded
24/08/2016	12:13	DOVD42	51.17767	1.42257	136	5608	19.49	-	Discarded
24/08/2016	12:16	DOVD42	51.17771	1.42283	136	5609	19.68	-	Discarded
24/08/2016	12:18	DOVD42	51.17770	1.42267	136	5610	19.49	-	Discarded

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	Cefas STN Number	Hydropro Fix Number	Water Depth (m)	Sediment depth in grab (cm)	Sediment use
24/08/2016	12:23	DOVD19	51.17447	1.41597	137	5611	15.45	-	Discarded
24/08/2016	12:25	DOVD19	51.17459	1.41606	137	5612	15.59	-	Discarded
24/08/2016	12:28	DOVD19	51.17451	1.41587	137	5613	15.91	-	Discarded
24/08/2016	12:32	DOVD48	51.17280	1.42175	138	5614	21.18	-	Discarded
24/08/2016	12:34	DOVD48	51.17293	1.42180	138	5615	20.73	-	Discarded
24/08/2016	12:37	DOVD48	51.17275	1.42177	138	5616	21.39	-	Discarded
24/08/2016	12:41	DOVD18	51.17215	1.41506	139	5617	16.54	3.0	Discarded
24/08/2016	12:43	DOVD18	51.17227	1.41530	139	5618	17.38	13.0	Biota
24/08/2016	12:47	DOVD18	51.17215	1.41516	139	5619	16.28	-	Discarded
24/08/2016	12:50	DOVD18	51.17223	1.41510	139	5620	17.28	8.0	PSA and Contaminants
24/08/2016	12:56	DOVD18	51.17216	1.41505	139	5621	17.43	-	Discarded
24/08/2016	12:58	DOVD18	51.17217	1.41528	139	5622	17.37	-	Discarded
24/08/2016	12:59	DOVD18	51.17210	1.41516	139	5623	16.73	-	Discarded
24/08/2016	13:02	DOVD18	51.17204	1.41523	139	5624	17.05	4.0	Contaminants
24/08/2016	13:06	DOVD18	51.17215	1.41513	139	5625	16.74	-	Discarded
24/08/2016	13:08	DOVD18	51.17210	1.41541	139	5626	18.21	-	Discarded
24/08/2016	13:10	DOVD18	51.17221	1.41499	139	5627	16.46	-	Contaminants
24/08/2016	13:13	DOVD18	51.17217	1.41505	139	5628	16.67	-	Contaminants
24/08/2016	13:16	DOVD18	51.17212	1.41516	139	5629	17.25	-	Discarded
24/08/2016	13:18	DOVD18	51.17215	1.41525	139	5630	17.56	-	Contaminants
24/08/2016	13:23	DOVD17	51.16884	1.41509	140	5631	21.40	5.0	PSA
24/08/2016	13:28	DOVD17	51.16894	1.41508	140	5632	21.44	1.0	Discarded
24/08/2016	13:30	DOVD17	51.16900	1.41516	140	5633	21.43	-	Discarded
24/08/2016	13:33	DOVD17	51.16899	1.41513	140	5634	21.66	-	Discarded

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24/08/2016	13:37	DOVD35	51.16857	1.41905	141	5635	22.62	-	Discarded
24/08/2016	13:39	DOVD35	51.16869	1.41901	141	5636	22.62	-	Discarded
24/08/2016	13:41	DOVD35	51.16848	1.41869	141	5637	22.79	-	Discarded
24/08/2016	13:48	DOVD16	51.16062	1.41122	142	5638	19.67	-	Discarded
24/08/2016	13:50	DOVD16	51.16052	1.41094	142	5639	20.03	-	Discarded
24/08/2016	13:52	DOVD16	51.16056	1.41091	142	5640	19.42	-	Discarded
24/08/2016	13:57	DOVD36	51.15795	1.41334	143	5641	25.54	-	Discarded
24/08/2016	13:59	DOVD36	51.15789	1.41334	143	5642	25.80	-	Misfire
24/08/2016	14:01	DOVD36	51.15792	1.41320	143	5643	26.08	-	Discarded
24/08/2016	14:03	DOVD36	51.15779	1.41329	143	5644	28.77	-	Discarded
24/08/2016	14:10	DOVD15	51.15418	1.40502	144	5645	19.65	-	Discarded
24/08/2016	14:13	DOVD15	51.15411	1.40535	144	5646	20.35	-	Discarded
24/08/2016	14:16	DOVD15	51.15424	1.40485	144	5647	19.31	-	Discarded
24/08/2016	14:26	DOVD14	51.14511	1.38948	145	5648	14.49	4.5	PSA
24/08/2016	14:30	DOVD14	51.14518	1.38929	145	5649	14.23	-	Discarded
24/08/2016	14:32	DOVD14	51.14502	1.38919	145	5650	13.94	-	Discarded
24/08/2016	14:34	DOVD14	51.14518	1.38910	145	5651	13.21	-	Discarded
24/08/2016	14:38	DOVD25	51.14235	1.38758	146	5652	17.65	-	Discarded
24/08/2016	14:40	DOVD25	51.14247	1.38727	146	5653	16.80	-	Discarded
24/08/2016	14:42	DOVD25	51.14246	1.38725	146	5654	17.40	-	Discarded
24/08/2016	14:47	DOVD13	51.14015	1.39123	147	5655	27.33	-	Discarded
24/08/2016	14:51	DOVD13	51.13991	1.39162	147	5656	27.57	-	Discarded
24/08/2016	14:54	DOVD13	51.14009	1.39137	147	5657	27.40	-	Discarded
24/08/2016	15:00	DOVD12	51.13889	1.38319	148	5658	19.65	-	Discarded

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	Cefas STN Number	Hydropro Fix Number	Water Depth (m)	Sediment depth in grab (cm)	Sediment use
24/08/2016	15:03	DOVD12	51.13898	1.38315	148	5659	18.90	-	Discarded
24/08/2016	15:05	DOVD12	51.13896	1.38320	148	5660	19.03	-	Discarded
24/08/2016	15:11	DOVD11	51.13711	1.38522	149	5661	20.27	-	Discarded
24/08/2016	15:14	DOVD11	51.13700	1.38531	149	5662	21.91	-	Discarded
24/08/2016	15:17	DOVD11	51.13711	1.38521	149	5663	20.32	-	Discarded
24/08/2016	15:24	DOVD10	51.13360	1.38078	150	5664	20.40	-	Discarded
24/08/2016	15:26	DOVD10	51.13352	1.38081	150	5665	21.44	-	Discarded
24/08/2016	15:29	DOVD10	51.13347	1.38084	150	5666	21.03	-	Discarded
24/08/2016	15:34	DOVD8	51.13425	1.37337	151	5667	18.71	-	Discarded
24/08/2016	15:36	DOVD8	51.13430	1.37349	151	5668	18.47	-	Discarded
24/08/2016	15:38	DOVD8	51.13417	1.37338	151	5669	18.86	-	Discarded
24/08/2016	15:43	DOVD9	51.13217	1.37394	152	5670	21.50	-	Discarded
24/08/2016	15:45	DOVD9	51.13207	1.37375	152	5671	21.44	3.0	PSA
24/08/2016	15:50	DOVD9	51.13230	1.37380	152	5672	20.69	-	Discarded
24/08/2016	15:52	DOVD9	51.13215	1.37384	152	5673	21.38	-	Discarded
25/08/2016	07:02	DOVD37	51.12891	1.37831	153	5674	24.04	-	Discarded
25/08/2016	07:04	DOVD37	51.12877	1.37789	153	5675	25.12	-	Discarded
25/08/2016	07:06	DOVD37	51.12883	1.37798	153	5676	23.93	-	Discarded
25/08/2016	07:10	DOVD41	51.12705	1.37618	154	5677	25.27	-	Discarded
25/08/2016	07:12	DOVD41	51.12699	1.37621	154	5678	25.30	-	Discarded
25/08/2016	07:14	DOVD41	51.12695	1.37635	154	5679	25.20	-	Discarded
25/08/2016	07:19	DOVD7	51.12924	1.36812	155	5680	16.67	-	Discarded
25/08/2016	07:21	DOVD7	51.12909	1.36798	155	5681	16.71	-	Discarded
25/08/2016	07:23	DOVD7	51.12914	1.36790	155	5682	16.97	-	Discarded

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25/08/2016	07:28	DOVD47	51.12542	1.36835	156	5683	23.92	-	Discarded
25/08/2016	07:30	DOVD47	51.12538	1.36840	156	5684	23.69	4.0	PSA
25/08/2016	07:35	DOVD47	51.12536	1.36847	156	5685	23.46	-	Discarded
25/08/2016	07:37	DOVD47	51.12546	1.36849	156	5686	23.78	-	Discarded
25/08/2016	07:41	DOVD38	51.12416	1.36566	157	5687	23.22	-	Discarded
25/08/2016	07:44	DOVD38	51.12413	1.36565	157	5688	22.84	-	Discarded
25/08/2016	07:46	DOVD38	51.12410	1.36566	157	5689	22.93	-	Discarded
25/08/2016	07:53	DOVD6	51.12782	1.36027	158	5690	14.27	-	Discarded
25/08/2016	07:54	DOVD6	51.12784	1.36037	158	5691	14.11	-	Discarded
25/08/2016	07:56	DOVD6	51.12783	1.36035	158	5692	14.18	-	Discarded
25/08/2016	08:01	DOVD39	51.12278	1.35651	159	5693	18.23	-	Discarded
25/08/2016	08:03	DOVD39	51.12282	1.35654	159	5694	18.16	-	Discarded
25/08/2016	08:05	DOVD39	51.12289	1.35658	159	5695	18.79	4.0	PSA
25/08/2016	08:12	DOVD39	51.12286	1.35650	159	5696	18.40	-	Discarded
25/08/2016	08:16	DOVD5	51.12545	1.35482	160	5697	13.93	-	Discarded
25/08/2016	08:18	DOVD5	51.12540	1.35473	160	5698	13.78	-	Discarded
25/08/2016	08:20	DOVD5	51.12540	1.35479	160	5699	13.83	-	Discarded
25/08/2016	08:23	DOVD3	51.12457	1.35097	161	5700	13.70	2.0	Discarded
25/08/2016	08:25	DOVD3	51.12455	1.35103	161	5701	13.86	-	Discarded
25/08/2016	08:27	DOVD3	51.12467	1.35103	161	5702	14.18	7.0	Biota
25/08/2016	08:30	DOVD3	51.12458	1.35099	161	5703	13.53	2.0	Discarded
25/08/2016	08:32	DOVD3	51.12456	1.35109	161	5704	14.56	-	Discarded
25/08/2016	08:34	DOVD3	51.12457	1.35097	161	5705	13.72	-	Discarded
25/08/2016	08:35	DOVD3	51.12464	1.35103	161	5706	14.37	-	Discarded

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	Cefas STN Number	Hydropro Fix Number	Water Depth (m)	Sediment depth in grab (cm)	Sediment use
25/08/2016	08:37	DOVD3	51.12464	1.35103	161	5707	13.52	7.0	PSA
25/08/2016	08:41	DOVD2	51.12574	1.35103	162	5708	12.60	13.0	Biota
25/08/2016	08:44	DOVD2	51.12572	1.35106	162	5709	12.83	11.0	PSA
25/08/2016	08:48	DOVD2	51.12571	1.35107	162	5710	12.44	9.5	Contaminants
25/08/2016	08:52	DOVD2	51.12574	1.35098	162	5711	12.43	9.0	Contaminants
25/08/2016	08:57	DOVD2	51.12560	1.35123	162	5712	12.02	-	Salinity
25/08/2016	09:01	DOVD1	51.12688	1.35123	163	5713	3.36	13.0	Biota
25/08/2016	09:06	DOVD1	51.12691	1.35110	163	5714	12.99	12.0	PSA and Contaminants
25/08/2016	09:14	DOVD1	51.12692	1.35114	163	5715	12.96	12.0	Contaminants
25/08/2016	09:16	DOVD1	51.12706	1.35113	163	5716	12.78	-	Salinity
25/08/2016	09:20	DOVD4	51.12649	1.35205	164	5717	12.95	12.0	Biota
25/08/2016	09:23	DOVD4	51.12644	1.35203	164	5718	12.94	-	Discarded
25/08/2016	09:26	DOVD4	51.12669	1.35186	164	5719	12.98	-	Discarded
25/08/2016	09:28	DOVD4	51.12658	1.35209	164	5720	14.37	13.0	PSA
25/08/2016	13:31	DOVD_90	51.12648	1.36099	172	5752	16.66	-	Discarded
25/08/2016	13:33	DOVD_90	51.12636	1.36116	172	5753	17.76	7.5	PSA
25/08/2016	13:38	DOVD_90	51.12640	1.36105	172	5754	17.71	5.0	Biota
25/08/2016	13:47	DOVD_91	51.13058	1.37592	173	5755	21.79	-	Discarded
25/08/2016	13:50	DOVD_91	51.13068	1.37602	173	5756	22.24	5.0	PSA
25/08/2016	13:54	DOVD_91	51.13063	1.37591	173	5757	21.64	5.0	Biota
25/08/2016	14:00	DOVD_92	51.13417	1.38391	174	5758	24.42	4.0	PSA
25/08/2016	14:05	DOVD_92	51.13427	1.38410	174	5759	23.95	7.0	Biota
25/08/2016	14:12	DOVD_14_B1	51.14491	1.38968	175	5760	13.26	-	Discarded
25/08/2016	14:14	DOVD_14_B1	51.14522	1.38947	175	5761	12.29	2.0	Discarded

Date	Time UTC	Station Code	WGS84 Latitude DD.DDDDD	WGS84 Longitude DD.DDDDD	Cefas STN Number	Hydropro Fix Number	Water Depth (m)	Sediment depth in grab (cm)	Sediment use
25/08/2016	14:17	DOVD_14_B1	51.14513	1.38946	175	5762	12.33	-	Discarded
25/08/2016	14:24	DOVD_15_B1	51.15397	1.40498	176	5763	19.75	-	Discarded
25/08/2016	14:27	DOVD_15_B1	51.15407	1.40495	176	5764	18.97	-	Discarded
25/08/2016	14:29	DOVD_15_B1	51.15409	1.40502	176	5765	19.09	-	Discarded
25/08/2016	14:32	DOVD_15_B1	51.15405	1.40498	176	5766	18.98	-	Discarded
25/08/2016	14:34	DOVD_15_B1	51.15423	1.40495	176	5767	19.49	-	Discarded
25/08/2016	14:36	DOVD_15_B1	51.15406	1.40506	176	5768	19.35	-	Discarded
25/08/2016	14:38	DOVD_15_B1	51.15424	1.40495	176	5769	19.48	-	Discarded
25/08/2016	14:40	DOVD_15_B1	51.15401	1.40504	176	5770	19.53	-	Discarded
25/08/2016	14:50	DOVD_13_B1	51.14010	1.39155	177	5771	26.55	-	Discarded
25/08/2016	14:52	DOVD_13_B1	51.14002	1.39142	177	5772	26.65	-	Discarded
25/08/2016	14:55	DOVD_13_B1	51.14003	1.39149	177	5773	26.93	5.0	PSA
25/08/2016	14:59	DOVD_13_B1	51.14000	1.39153	177	5774	26.80	-	Discarded
25/08/2016	15:04	DOVD_11_B1	51.13714	1.38549	178	5775	21.41	4.5	PSA
25/08/2016	15:09	DOVD_11_B1	51.13708	1.38543	178	5776	22.24	6.0	Biota
25/08/2016	15:19	DOVD_7_B1	51.12941	1.36815	179	5777	18.63	-	Discarded
25/08/2016	15:22	DOVD_7_B1	51.12925	1.36812	179	5778	17.93	-	Discarded
25/08/2016	15:24	DOVD_7_B1	51.12930	1.36802	179	5779	18.34	-	Discarded

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