



Sofia Offshore Wind Farm: Investigation of Anomaly 7266 at Turbine Location T15

Archaeological Report



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Summary

An ROV investigation of Anomaly 7266, close to the proposed T15 turbine location within the Sofia Offshore Wind Farm (SOWF) offshore generation assets (non-OFTO), was carried out on 20-21 April 2021, under the onsite direction of the Retained Archaeologists, Wessex Archaeology.

The anomaly was found by geophysical survey. The sidescan sonar and MBES data indicated that it was approximately 19.0 m x 13.5 m x 0.3 m high above bed level. It had a magnetic amplitude of 154 nT, suggesting ferrous content.

The anomaly was found to be the wreck of an unidentified wooden ship built in the 19th or early 20th century, probably after 1819. Loss date was probably within the same date range. The surviving remains, probably only a small part of the original ship, include at least two fragments of hull, iron knees, copper alloy hull fasteners, possible studded chain and other debris that is almost certainly associated with the ship.

The identity and function of the ship is unknown. No evidence of armament was found and the location of the anomaly on the Dogger Bank suggests that a connection with the fishing industry or with short sea trade across the North Sea is most likely.

The results of the investigation suggest that the extent of the wreck roughly corresponds with the extent of Anomaly 7266 as previously defined by the sidescan sonar and MBES data. No evidence was found for significant buried archaeological deposits outside of this area.

The closest USBL waypoint for wreck material was WP24, 60 m west of the centre of the TP15 location.

Acknowledgements

The project was carried out by the Retained Archaeologist Wessex Archaeology for Sofia Wind Farm Limited (SOWFL) and the assistance of Consents Manager Clare Davies and Project Manager Mike Gould of RWE is gratefully acknowledged. Wessex Archaeology also wishes to thank Gary Robinson of Ocean Ecology Ltd and the providers and operators of the ROV, Rovco and their staff, as well as the operators and crew of MV *Glomar Wave*.

Senior Project Manager Andrew Bicket managed the project for the Wessex Archaeology and edited this report. Senior Maritime Technical Specialist Graham Scott drafted the Archaeological Method Statement, directed the archaeological work on site and compiled this report. Figures were prepared by Kitty Foster. Head of Coastal & Marine Dan Atkinson provided overall quality assurance.



Sofia Offshore Wind Farm: Investigation of Anomaly 7266 at Turbine Location T15

Archaeological Report

1 INTRODUCTION

- 1.1.1 This document reports on the results of an ROV investigation of Anomaly 7266 ('the anomaly'), located south-west of the proposed site of the T15 turbine and within the non-OFTO ('the investigation'; **Figure 1**). The investigation was designed to inform the mitigation strategy for the anomaly and was carried out on 20-21 April 2021 under the direction of the Retained Archaeologists, Wessex Archaeology.

2 ANOMALY 7266

- 2.1.1 Although it was believed to be anthropogenic, prior to the investigation the anomaly was not identified or archaeologically characterised. It was observed in sidescan sonar (SSS) and multibeam echosounder (MBES) datasets as a mound-like feature 19.0 m x 13.5 m x 0.3 m high at 465989 6093527 (WGS84 UTM Z31N), with a magnetic amplitude of 154 nT (**Figures 2a-c**).
- 2.1.2 The anomaly as defined by the datasets was approximately 14 m west-south-west of the centre point of the proposed turbine base location.

3 OBJECTIVES

- 3.1.1 The objectives of the investigation were set out in an Archaeological Method Statement (MS) (Wessex Archaeology 2021; document no. 003888927, para 2.1.5) as follows. This document reports on Objectives 1 and 2:
1. Visually inspect the Anomaly and record its observable extent through appropriate means;
 2. Archaeologically characterise the Anomaly;
 3. Develop further mitigation and investigating measures as necessary; and
 4. Disseminate and archive the results.
- 3.1.2 The target recording level for Objective 1 was a 2b intrusive survey. This is a limited record based on investigations including vigorous cleaning, test pits and/or trenches. The marine license obtained for the work permitted excavation but did not provide for the recovery of finds.
- 3.1.3 Objectives 3 and 4 will be subsequently undertaken in accordance with the agreed WSI for the scheme as per the Method Statement (Wessex Archaeology 2021).



4 METHODOLOGY

4.1.1 The investigation was carried out using a Seaeye Leopard electric work class ROV¹ provided and operated by Rovco from the DP2 support vessel *Glomar Wave*.² The ROV was equipped with a colour HD camera, black and white low light camera and a Tritech Gemini imaging sonar. The ROV was tracked acoustically using a Sonardyne Ranger 2 USBL system. Calibration results indicate that this system had an accuracy of approximately 1 m. Additional equipment mobilised with the ROV to be fitted as required included a Rovco SUBSLAM stereo camera system³, water jetting system and dredge skim. Positioning, camera and sonar data was recorded by ROVCO and provided to the Retained Archaeologists before departure from the vessel.

4.1.2 The methodology for the investigation was set out in the MS. Subsequently an investigation plan was designed, and this is summarised in **Table 1**. Given that the anomaly was unidentified and could have been modern debris of no archaeological significance, this was broken down into survey stages. This allowed for the investigation to be terminated at the end of each stage if sufficient data had been acquired to meet the objectives.

Table 1 Investigation Plan

| Stage | Task | Decision (when taken) | Reason for ceasing operation |
|-------|----------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------|
| 1 | Initial sonar survey from safe distance | Safe to proceed (end sonar survey) | Overriding operational reasons |
| 2 | General visual inspection (GVI) of Anomaly | Continue investigation? (end of stage) | Anomaly clearly not of archaeological interest |
| 3 | 3D survey (pre-disturbance) | Continue investigation? (end of stage) | Sufficient data acquired to meet objectives |
| 4 | Close visual inspection (CVI) and excavation if required | Continue investigation or proceed to as left survey? (iterative) | Sufficient data acquired to meet objectives |
| 5 | As left survey | Continue investigation? (end of stage) | Contingency provision |

4.1.3 The MS and investigation plan were drafted by the Retained Archaeologist, which provided a highly experienced onboard maritime archaeologist to direct the investigation on site. This representative was also responsible for taking go/no-go decisions in consultation with SOWFL and their on-site representatives, Ocean Ecology Ltd.

¹ [Leopard | Saab Seaeye](#)

² [Glomar- WAVE- Brochure.pdf \(gm-ships.com\)](#)

³ [SubSLAM – Live 3D Vision \(rovco.com\)](#)



5 RESULTS

5.1 Operational summary

- 5.1.1 The operation was mobilised out of the Port of Blyth and on-site investigations were carried out on 20-21 April 2021, after USBL calibration⁴ and DP trials. The operation was demobilised at Great Yarmouth.
- 5.1.2 Tides experienced were generally strong and this had some impact at times on the handling of the ROV, although it was not necessary to pause operations because of this. However, technical issues with the ROV and its equipment meant that diving was not continuous and the ROV spent significantly more time on deck than had been anticipated.
- 5.1.3 The area subject to GVI is shown in **Figure 3**, which is a composite of the USBL track of the ROV, buffered to represent 0.5 m visibility in all directions. Sonar coverage varied depending upon the range setting but averaged approximately 8-11 m from the vehicle in a 120 degree forward facing arc. The coverage was therefore significantly greater than the GVI.
- 5.1.4 Extremely poor underwater visibility of approximately <0.75 m caused by particulates in the water column was experienced throughout the operation. Visibility was at no stage clear and was often only just beyond the distance between the camera and the feature being inspected, even when the ROV was landed and positioned so that the current was taking disturbed sediment away from the field of view. Repositioning the lights and cameras did not result in any significant improvement. The use of a low light camera in the latter stages of the operation produced a marginal improvement, but at the cost of a loss of resolution, texture and colour information. This meant that the planned 3D modelling of the anomaly using the SUBSLAM system or photogrammetry was not possible. Stage 3 of the investigation plan was therefore cancelled. This was compensated for by greater use of the sonar. Visibility deteriorated during the investigation and therefore the decision was taken to undertake CVI at the same time as GVI, when potentially diagnostic wreck features were initially located.
- 5.1.5 Three test pits (TP) were excavated using a waterjet attached to one of the ROV manipulators (TP1-3; **Figure 4**). The excavation of TP1 was interrupted due to a technical fault with the ROV. Excavation of TP2 and TP3 was to a depth of approximately 0.3 m, the effective depth limit of the jetting tool in the seabed type encountered.
- 5.1.6 USBL waypoints were recorded for anomaly features of archaeological interest and for selected operational events. Those for anomaly features are listed in **Appendix 1** and are shown in **Figure 4**. It should be noted that there appears to be a small discrepancy between the position of the Anomaly as defined by the georeferenced SSS and MBES data and the position as defined by the USBL waypoints. Whilst the waypoints are for the ROV CRP position that was often not directly above the wreck feature being positioned and there is inevitably some difficulty in comparison between datasets, the overall impression is that the USBL system positioned the Anomaly 1-1.5 m south of its position recorded during geophysical survey.

⁴ Wessex Archaeology was informed onboard that the USBL calibration resulted in a potential error of up to 1m per measurement but have not yet seen the calibration results.



5.2 Site description

- 5.2.1 Anomaly 7266 comprises two areas of wreck material, corresponding closely with the extent of the SSS and MBES anomaly areas. The larger area (Area 1) lies to the north and its long axis is orientated approximately west-north-west to east-south-east. The smaller area (Area 2) lies to the south of the eastern end of Area 1 and is separated by a gap of approximately 3 m. Both comprise wooden hull structure, outboard side down and with ferrous debris lying on top of it. This includes a number of long, ferrous, bar or rod-like objects visible in the SSS, which could not be identified by visual inspection. Although otherwise mostly unidentified, this debris was not identified as fishing gear and, on a balance of probability, it is almost certainly from the wrecked vessel. To the south-west of Area 1 is a small area of scattered debris.
- 5.2.2 The size of Areas 1 and 2 appears to correspond roughly with the size of the SSS and MBES anomalies and as previously given (**Figure 4**). Both appear to contain wreck material 'rafted' on hull structure, although this will need to be confirmed. The depth of archaeological deposits in both is therefore likely to be very shallow.
- 5.2.3 The ROV imaging sonar picked up a small linear object approximately 3.6 m from the east end of Area 1 in the general direction of the proposed turbine location, but this was not seen when overflown, probably due to the very poor visibility (**Appendix 2: 31**). The presence of a small fragment of timber in TP2 suggests that there is a likelihood of a very sparse buried debris field extending in the direction of the main flow of current, probably aligning with dominant current flow and for an unknown distance. It is unlikely that this can be confirmed or further defined, other than by extensive excavation.
- 5.2.4 The hull structure along the south side of Area 1 becomes buried at either end. However, no obvious indication of an extensive area of buried vessel structure or debris beyond the visible extent of Area 1 and Area 2 was observed. Jetting of two small, shallow test pits at 1 m (TP2) and approximately 3 m (TP3) from the easternmost point of Area 1, found one small fragment of worked timber, possibly planking, in TP2. Technical issues meant that the jetting of TP1 at the west end of Area 1 was not completed. However, other than as noted, there is no surface indication of burial of wreck material in that direction.

5.3 Interpretation

- 5.3.1 In this report, 'diagnostic' means wreck features or objects that provide information about the character of the wreck, including its data, origin, function and identity. A ship that is wrecked undergoes a traumatic and deteriorating process both during and after its loss. Diagnostic features are very often displaced unpredictably or are in an unrecognisable condition; or may be buried or missing altogether. Locating, identifying and assessing them is therefore a complicated and somewhat unpredictable process, even for specialists working in good environmental conditions. In the case of this investigation, the search for diagnostic features was severely hampered by the very poor underwater visibility. This made the location and recognition of diagnostic anomaly features difficult and probably limited the results and interpretation that might otherwise have been achieved.
- 5.3.2 The observation of wooden hull framing, outer planking and ceiling planking indicate that Anomaly 7266 is the wreck of a wooden ship. In the absence of any evidence that it was a warship, the presence of iron knees and cuprous fasteners indicate that the ship is very unlikely to have been built before the 19th century. The chain observed at WP29 is a studded chain. That form of chain was patented in 1819 and this means that the use onboard can be dated to 1819 or later. Although the data does not support a date by which the ship is likely to have been lost, with a few exceptions such as some fishing and specialist



vessels including minesweepers, the use of wooden ships became rare by the mid-20th century. Therefore, it is very unlikely that this vessel was lost after then.

- 5.3.3 The identity and function of the ship is unknown. No evidence of armament was found and the location of the anomaly on the Dogger Bank suggests that a connection with the fishing industry or with short sea trade across the North Sea is most likely.
- 5.3.4 The surviving remains probably represent only two small parts of the original ship. At the present time it cannot be said with confidence which parts they are, although it is noted that one of the knees found was probably from close to the bow or stern and that studded chain, commonly used for anchor chain has been found. There is no indication of a debris field in the wider area, although there are two un-investigated pUXO targets within 40 m which until investigated could potentially be linked to the wreck (**Figure 1**). Evidence that the hull of the vessel had been eroded down to bed level (WP 08-11) was observed, but otherwise site formation processes are unknown. Dogger Bank was heavily fished in the 20th century using beam trawls and it is conceivable that these have had an impact on the wreck. Given the lack of evidence for the rest of the ship, it is also conceivable that the remains have moved to this location as a result of trawling impacts, although Area 1 is quite substantial for this hypothesis.
- 5.3.5 The results of the investigation suggest that the extent of the wreck roughly corresponds with the extent of Anomaly 7266. The closest USBL waypoint for a wreck feature was WP24, approximately 60 m west of the centre of the TP15 location as positioned using the USBL (**Figure 4**).

REFERENCES

Wessex Archaeology 2021. *Archaeological Method Statement. Investigation of Anomaly 7266 at Turbine Location T15*, unpublished document no. 00388897.



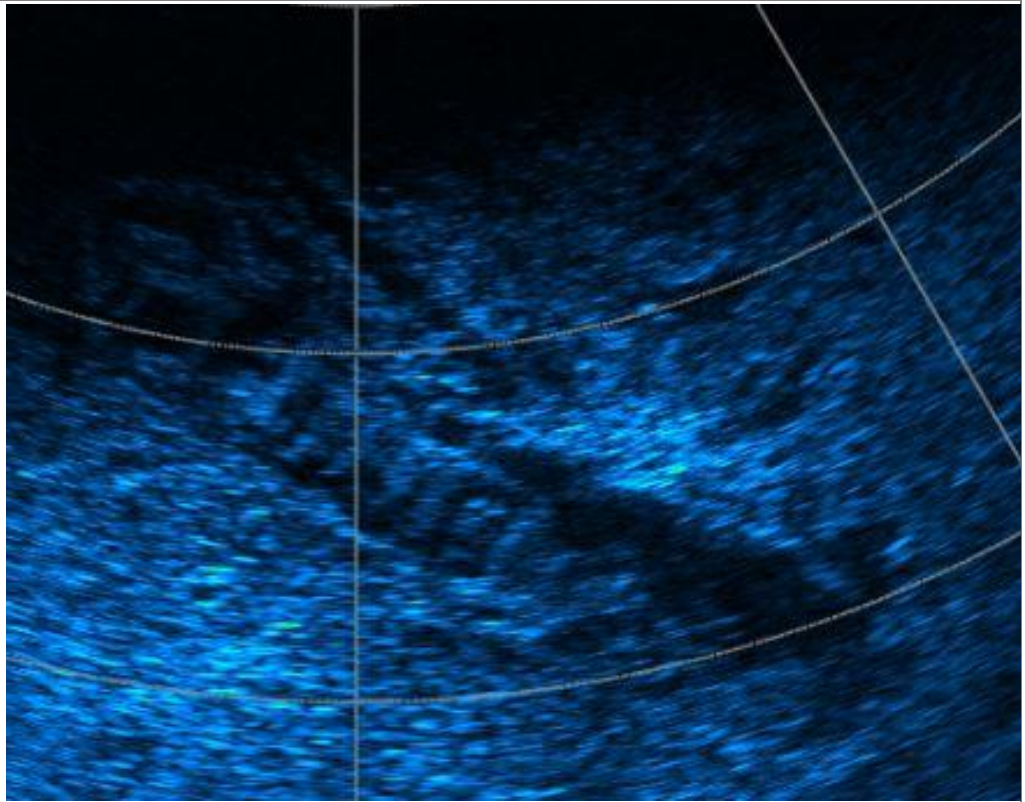
APPENDICES

Appendix 1: Archaeological features recorded as ROV waypoints

Event waypoints in grey.

| UID | Easting | Northing | Description | Image |
|------|-----------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| WP01 | 465975.5 | 6093535.95 | Start of sonar survey | |
| WP02 | 465987.91 | 6093520.02 | Cuprous fastener in worked timber. Slightly flattened end that has been driven. Significant length exposed, suggesting that the bolt was driven into a thick timber /s that is missing. Bent over, which suggests trauma. | |
| WP03 | 465988.04 | 6093520.68 | Cuprous fastener in worked timber | |
| WP04 | 465986.38 | 6093519.22 | Cuprous drift-type bolts in detached timber structure, probably a plank end. No longer flush with surface which suggests that they were driven into a plank-like timber now missing or have suffered a pulling force trauma. | |
| WP05 | 465992.41 | 6093517.9830 | Partially buried wreck material | |
| WP06 | 465991.82 | 6093518.5920 | Probable planked surface | |

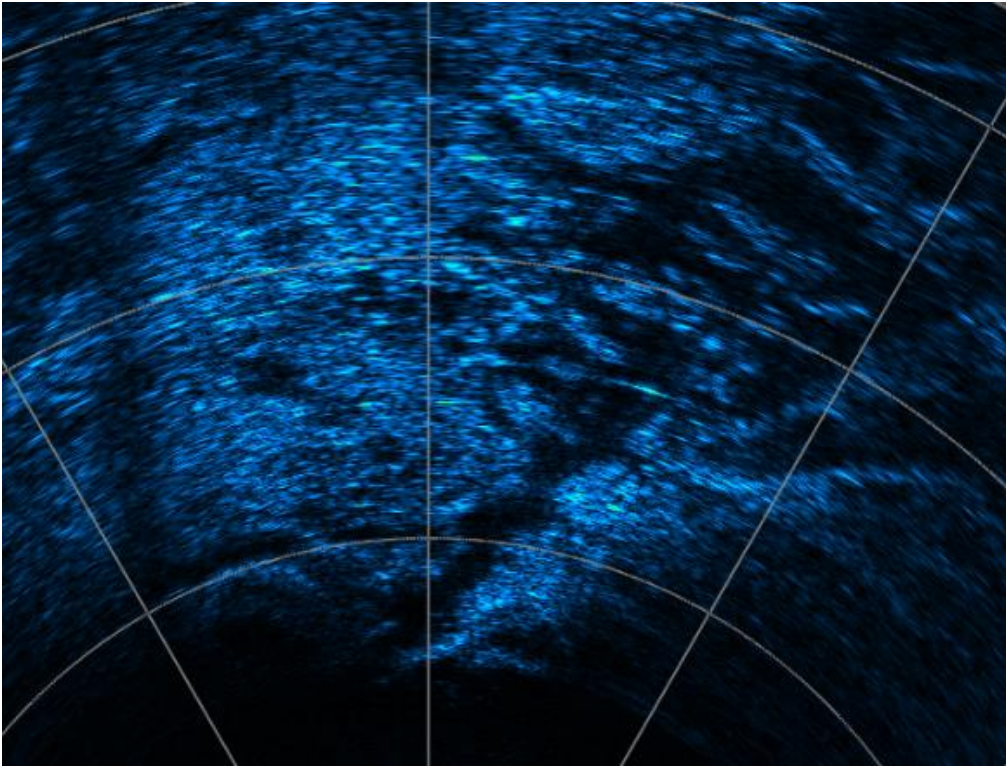


| UID | Easting | Northing | Description | Image |
|------|-----------|--------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| WP07 | 465990.30 | 6093519.7130 | Degraded cylindrical object? | |
| WP08 | 465988.71 | 6093524.1010 | Edge of wooden structure. Sonar image shows edge of hull structure with frames, ceiling and outer planking (north approximately up) |  |




| UID | Easting | Northing | Description | Image |
|------|-----------|--------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WP09 | 465986.05 | 6093524.1720 | Closely spaced wooden frames with ceiling and outer planking (north approximately up) | <p>Date/ Time 20.04.2021 23:48:38 Client: Ocean Ecology RWE Vessel: Glomar Wave Location: Sofia OWF T15 Anomaly</p> <p>Ocean Ecology ROVCO RWE OCEAN INSIGHT</p> <p>E:465987.91 N:6093523.75 Depth:30.90 Alti:19.70</p> <p>Hdg: 19.90 Pitch: -3.18 Roll: -0.50</p> <p>Dive#004</p> |
| WP10 | 465981.32 | 6093524.7520 | West end of WP09 ? (becomes buried at this point) | |



| UID | Easting | Northing | Description | Image |
|------|-----------|--------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WP11 | 465989.46 | 6093523.6780 | Ditto, east end of same. Frames and planking become buried at this point. |  <p data-bbox="1081 1018 2085 1101">Looking approximately south-west. WP11 approximate centre of image. The line of ceiling planks and eroded frame ends along the south edge of Area 1 can be seen from centre bottom to top right.</p> |



| UID | Easting | Northing | Description | Image |
|------|-----------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| WP12 | 465986.31 | 6093528.7810 | Small, ferrous knee. Detached and lying on the seabed. The narrow angle between the arms and the pronounced curve of the lower arm suggests that it is from a position in the vessel where the floor was rising towards the deck, i.e. near the bow or stern. The upper arm is shaped to fit around a longitudinal deck beam or carling. |  |
| WP13 | 465989.66 | 6093529.0150 | Edge of visible wreck | |
| WP14 | 465989.97 | 6093528.0540 | Cuprous fastener in plank or frame/beam | |
| WP15 | 465991.72 | 6093525.3390 | East edge of wreck in sonar image | |
| WP16 | 466005.31 | 6093512.693 | Start of survey grid | |
| WP17 | 465965.95 | 6093537.22 | End of grid survey | |
| WP18 | 465979.01 | 6093524.68 | Revised W end of hull structure | |
| WP19 | 465983.1 | 6093524.69 | Test pit 1 | |
| WP20 | 465983.41 | 6093524.61 | Test pit 1. Small test pit, depth estimated <0.3m. Not fully excavated due to fault with ROV manipulator arm. Sand over gravel/small cobbles. No archaeology observed. | No image |



| UID | Easting | Northing | Description | Image |
|------|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| WP21 | 465990.66 | 6093523.94 | Test pit 2. Centre approximately 1.02m south-south-west of east end of Area 1 (see image). Approximately 0.41m ² . Excavated to depth of approximately 0.3m. Sandy gravel and small cobbles. Small, thin, plank-like, loose fragment of worked wood (see faint line across lower left side of trench in image) | |
| WP22 | 465991.83 | 6093520.83 | Ferrous knee | |



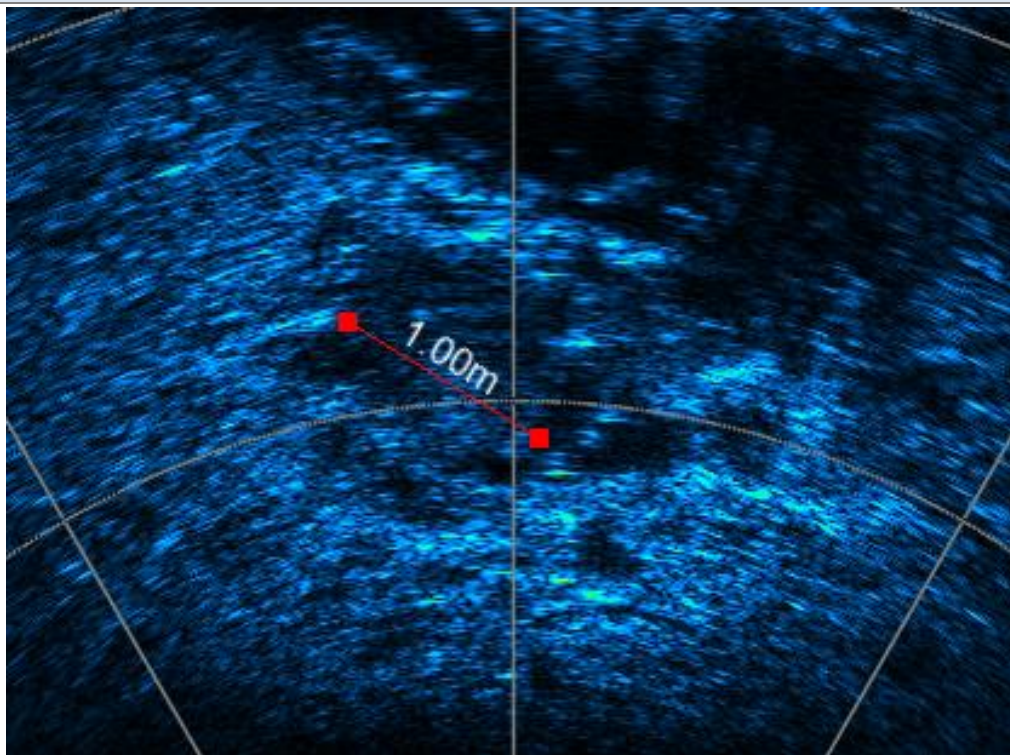
| UID | Easting | Northing | Description | Image |
|------|-----------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WP23 | 465992.12 | 6093520.52 | Planking in Area 2. Small section jettted to clear of sand and small cobbles. Lying horizontally. Orientated approximately west-south-west to east-north-east. Flush laid. Concave, with supporting transverse timber. Likely to be ceiling planks with eroded frame. Light coloured hard surface overlying planks in places (see image) may be concretion formed due to the corrosion of iron fasteners of fixings. | <p>Date/ Time 21.04.2021 21:04:40 Client: Ocean Ecology RWE Vessel: Glomar Wave Location: Sofia OWF T15 Anomaly E:466000.64 N:6093521.44 Depth:30.30 Alti:34.40 Hdg: 268.60 Pitch: -1.58 Roll: 0.28 Dive#009</p> |

(Low light B&W camera used due to extremely poor visibility)



| UID | Easting | Northing | Description | Image |
|------|-----------|------------|-------------|-----------------------------------------|
| WP24 | 465992.94 | 6093520.52 | As WP24 | <p>Sketch of WP23-24 (not to scale)</p> |




| UID | Easting | Northing | Description | Image |
|------|-----------|------------|-----------------------------------|--------------------------------------------------------------------------------------|
| | | | |  |
| WP25 | 465988.96 | 6093519.14 | South edge of Area 2 | Jettied area of structure on northern edge of Area 2 (WP23 & 24) |
| WP26 | 465987.38 | 6093525.76 | Possible chain, heavily concreted | |

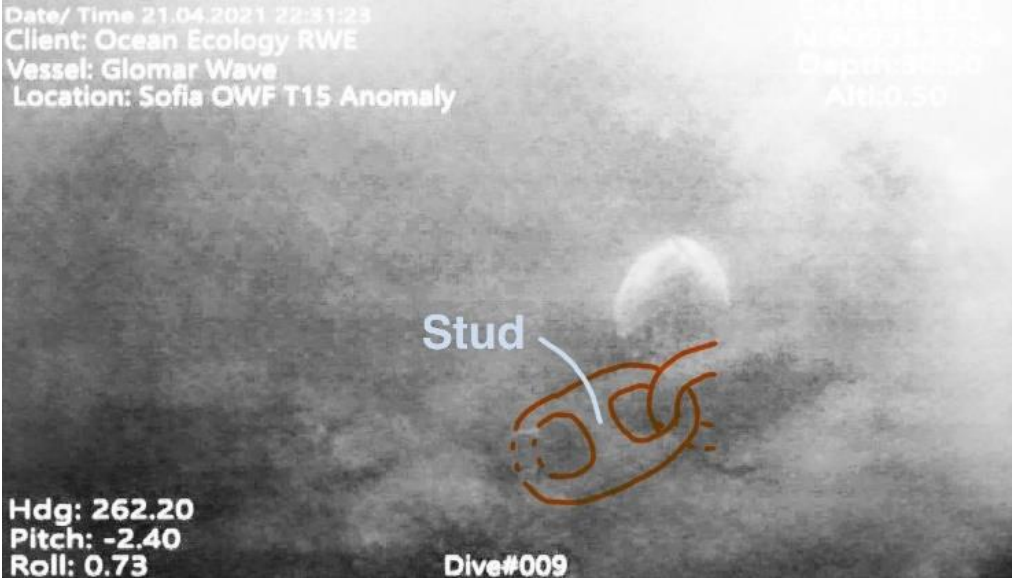


| UID | Easting | Northing | Description | Image |
|------|-----------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WP27 | 465978.1 | 6093525.21 | Ferrous knee. Detached and lying on the seabed. Formed of two arms of rectangular section iron. 'W' shape to fit around a deck clamp at the junction between a transverse beam and the hull. | <p>Date/ Time 21.04.2021 22:12:00 Client: Ocean Ecology RWE Vessel: Glomar Wave Location: Sofia OWF T15 Anomaly E:465978.26 N:6093524.97 Depth:30.90 Alt:24.30 Hdg: 72.20 Pitch: 0.46 Roll: 2.98 Dive#009</p> |
| WP28 | 465985.48 | 6093527.5 | Unidentified feature | |



| UID | Easting | Northing | Description | Image |
|------|-----------|------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WP29 | 465985.52 | 6093527.18 | Studded chain within Area 1. The link in the image has a bar that divides the link internally into two. |  <p>Date/ Time 21.04.2021 22:31:23 Client: Ocean Ecology RWE Vessel: Glomar Wave Location: Sofia OWF T15 Anomaly</p> <p>Roll: 0.73 Pitch: -2.40 Hdg: 262.20</p> <p>Depth: 30.60 Alt: 0.50</p> <p>Dive#009</p> <p>Studded chain link in centre foreground. The low-light B&W video still has been adjusted to improve contrast.</p> |



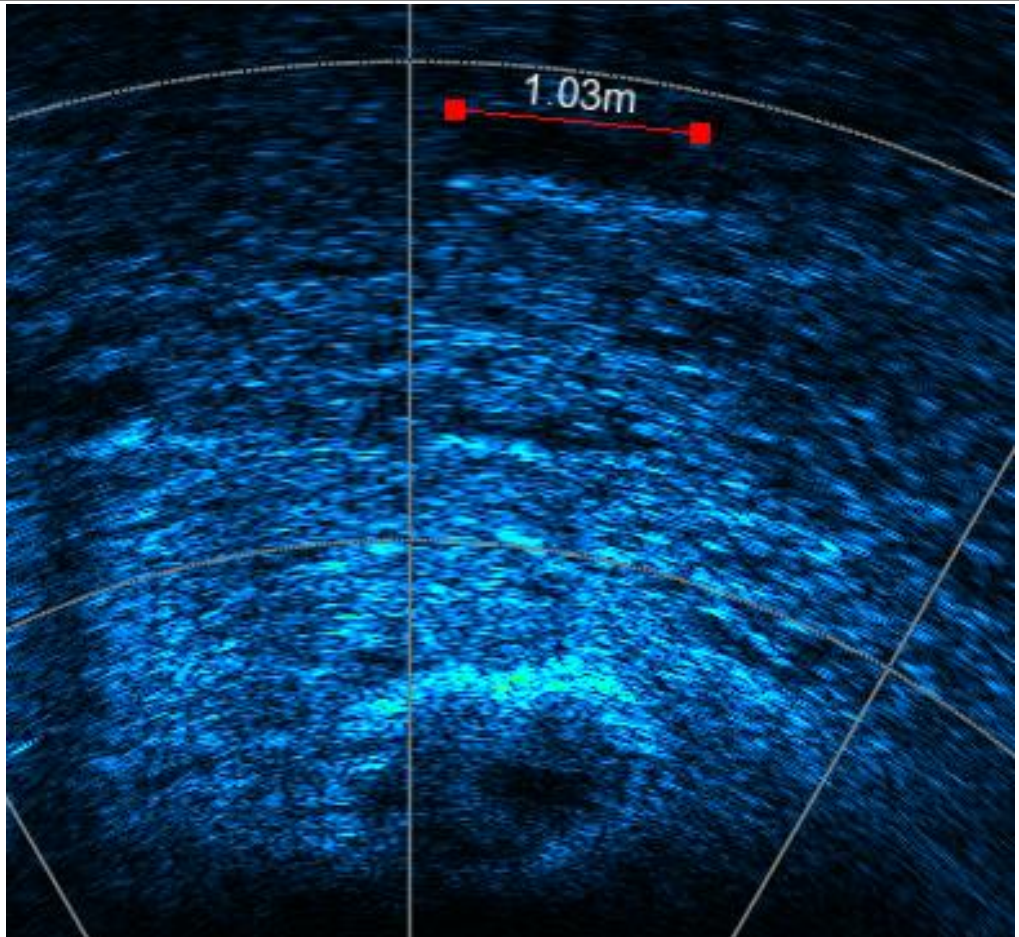
| UID | Easting | Northing | Description | Image |
|-----|---------|----------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | |  <p>Date/ Time 21.04.2021 22:31:23 Client: Ocean Ecology RWE Vessel: Glomar Wave Location: Sofia OWF T15 Anomaly</p> <p>Number: 7266 Depth: 30.50 Alt: 0.50</p> <p>Hdg: 262.20 Pitch: -2.40 Roll: 0.73</p> <p>Dive#009</p> <p>Interpretational sketch superimposed</p> |

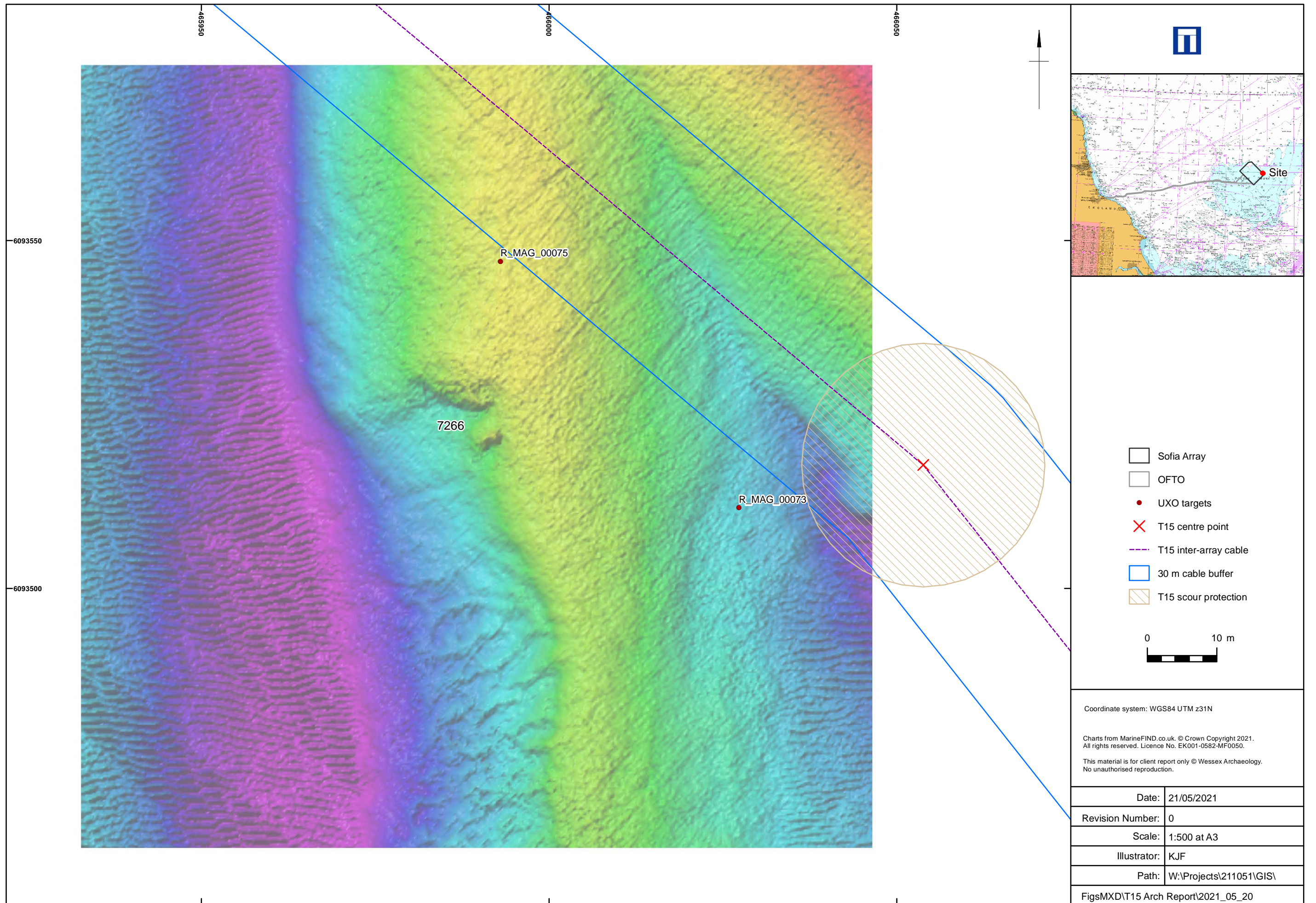


Appendix 2: Selected archaeological features/events not recorded as ROV waypoints

| UID | Location | Description | Image |
|-----|---------------------------------------------|-----------------------------------------------------------------------------------------------|-------|
| 30 | 1.52m SE of east end of Area 1 (see image). | Test Pit 3. Approximately 0.72m ² . Sandy gravel and small cobbles. No archaeology | |

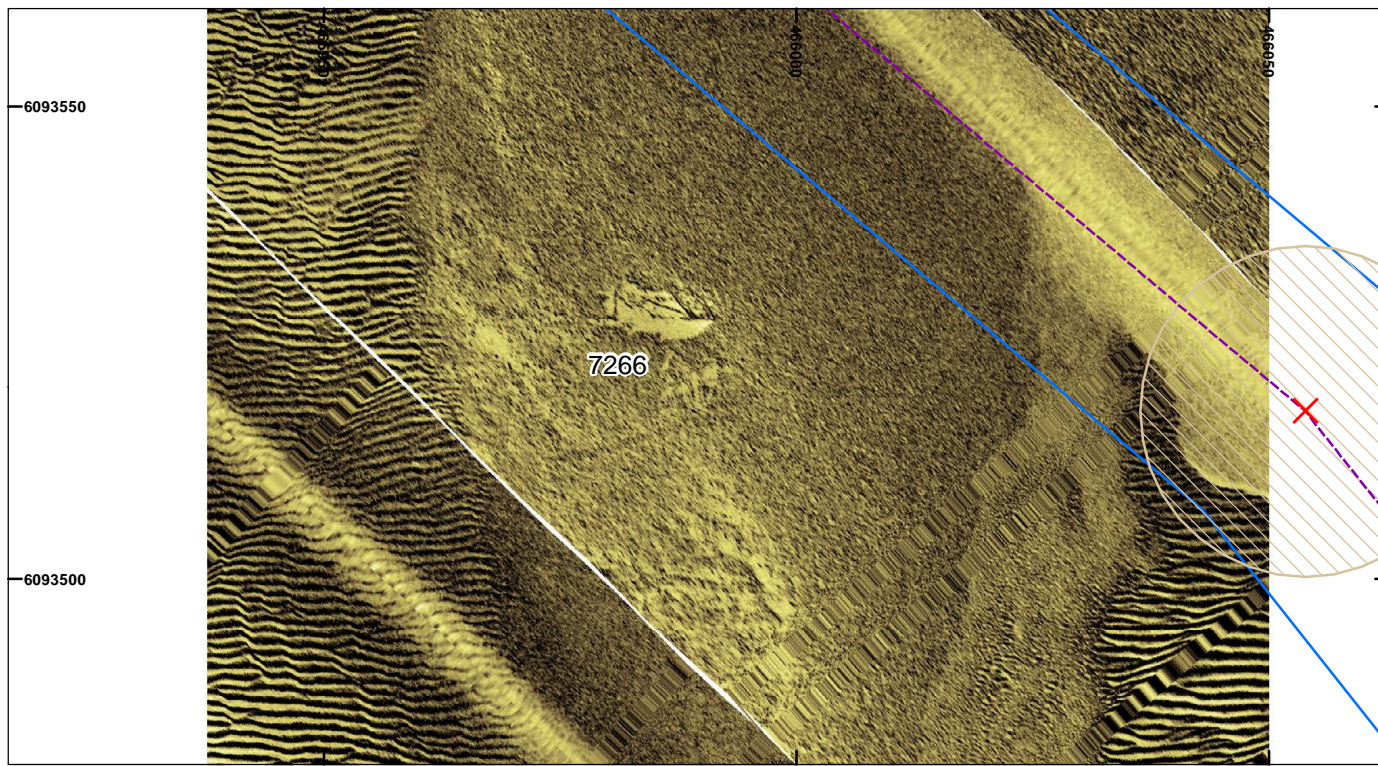


| UID | Location | Description | Image |
|-----|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 31 | 3.6m from east edge of Area 1 | Small linear object observed in SSS data approximately 2.0m east of Trench 3 and 3.6m from the east edge of Area 1. Approximately 1.03m long. Not observed visually, probably due to poor visibility. |  The image is a Synthetic Aperture Sonar (SSS) scan showing a seabed with a complex, textured appearance in shades of blue and cyan. A small, bright, linear object is highlighted in red in the upper right quadrant. A red double-headed arrow with the text '1.03m' above it indicates the length of this object. The scan is overlaid with a grid of white lines, including a vertical line that passes through the object and several curved lines representing the scan's geometry. |

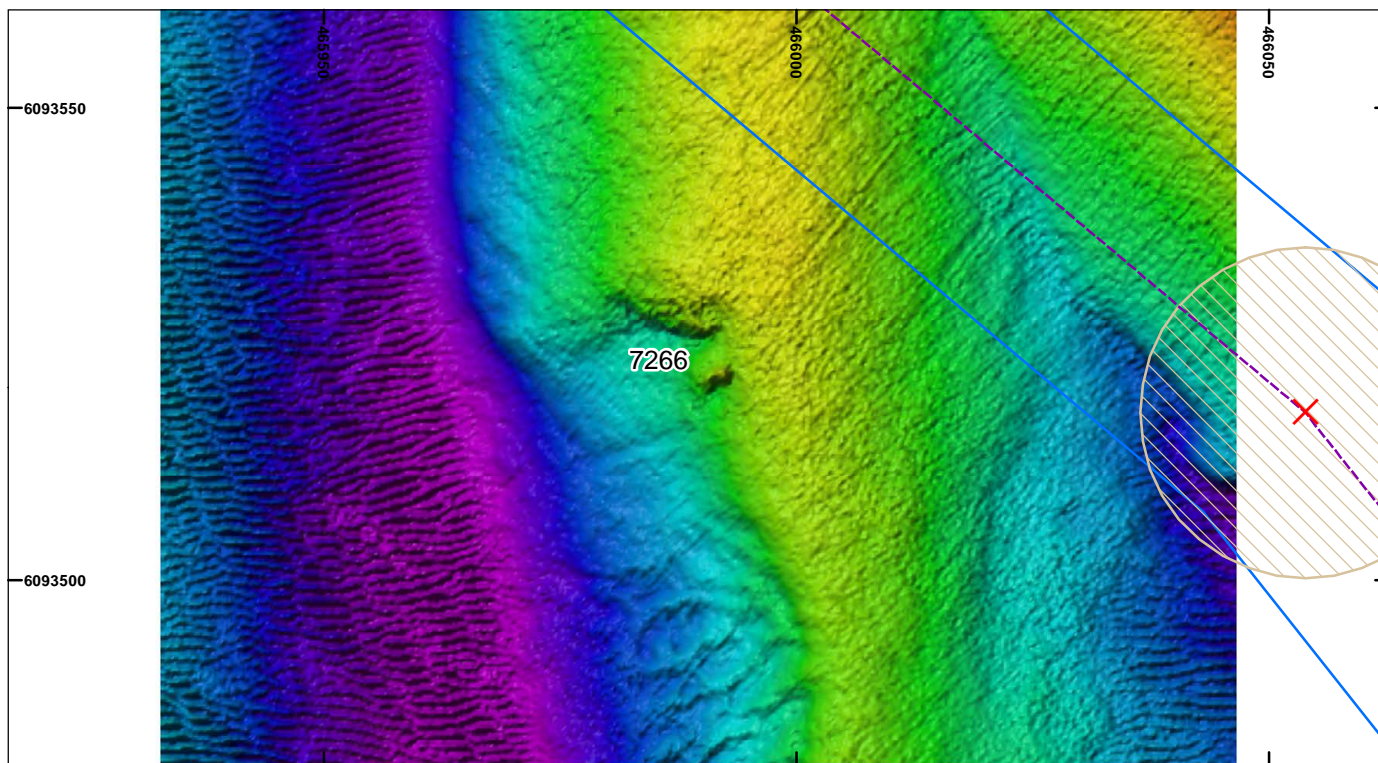


Anomaly 7266, T15 and inter array cable route locations

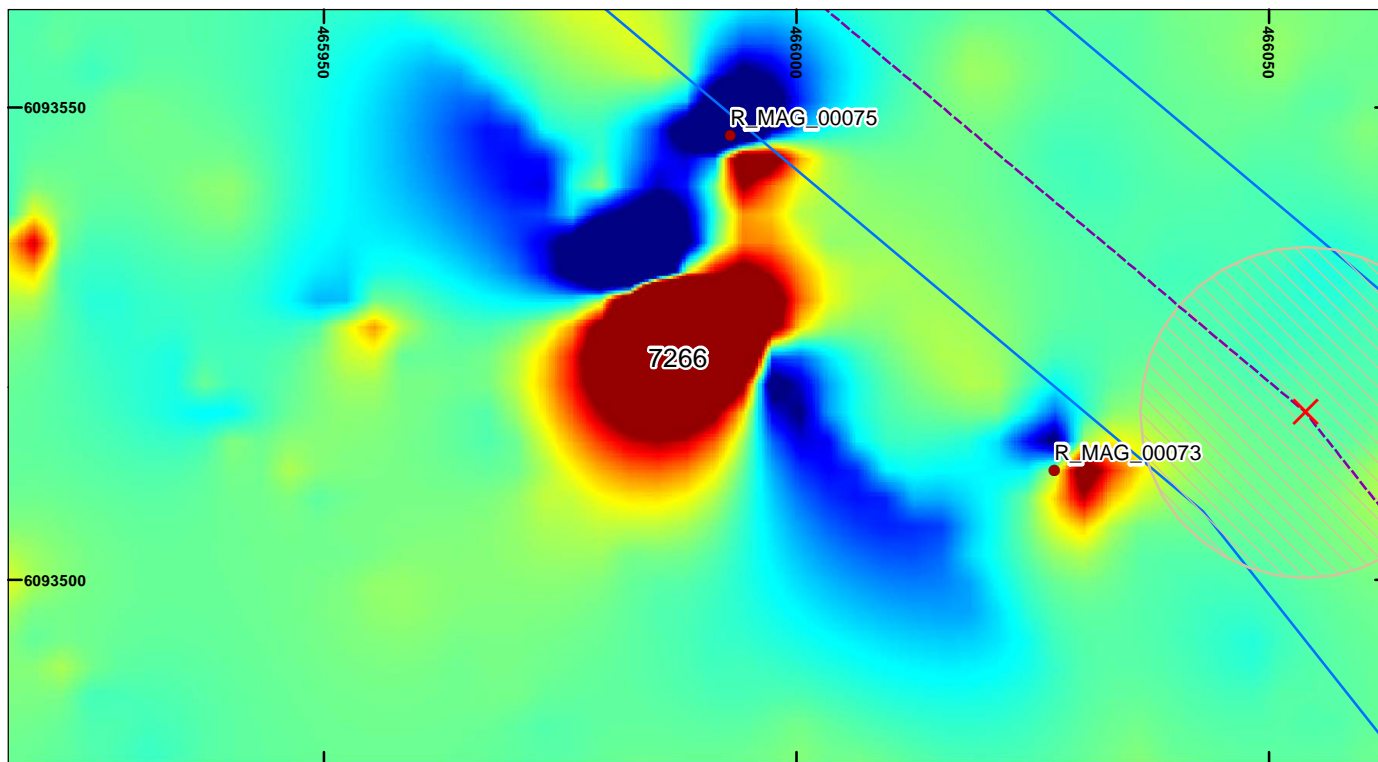
Figure 1



A. Sidescan sonar image of Anomaly 7266



B. MBES image of Anomaly 7266



C. Magnetometer data for Anomaly 7266

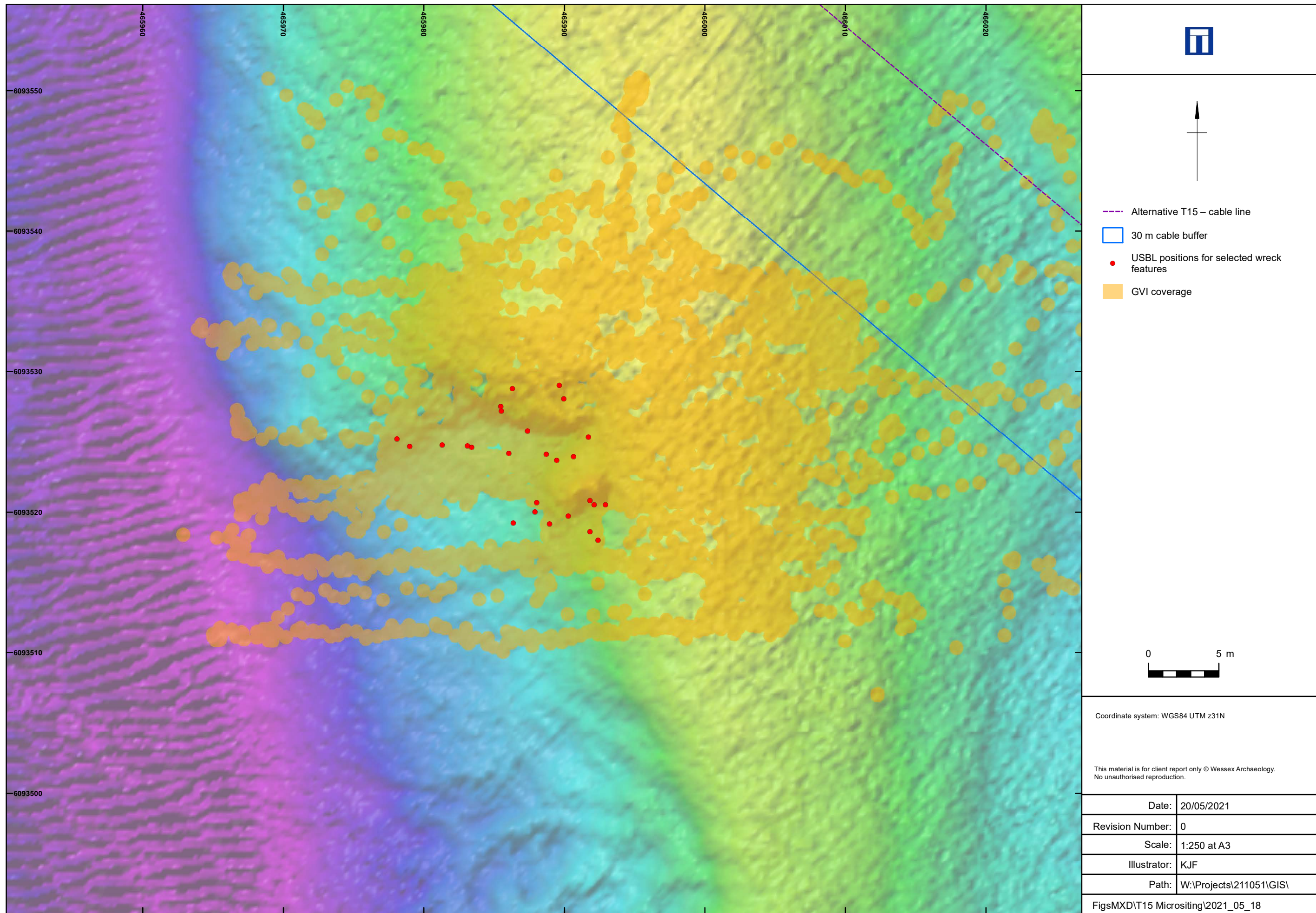
- T15 centre point
- T15 scour protection
- T15 inter-array cable
- 30 m cable buffer



Coordinate system: WGS84 UTM Z31n

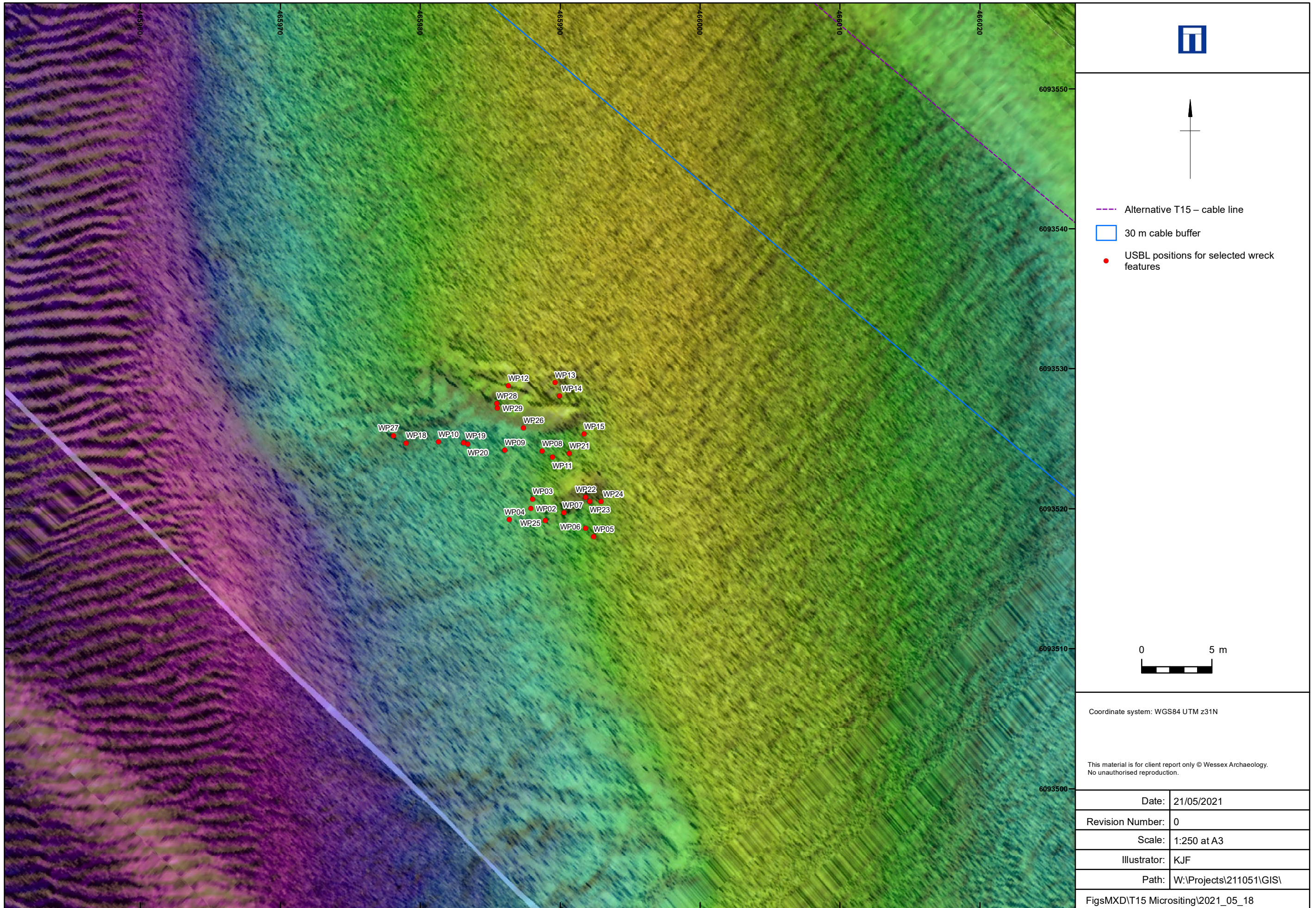
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| Date: | 20/05/2021 | Revision Number: | 0 |
| Scale: | 1:800 at A3 | Illustrator: | KJF |
| Path: | W:\Projects\211051\GIS\FigsMXD\T15 Arch Report\2021_05_20 | | |



GVI coverage based on ROV USBL track points buffered by 0.5 m

Figure 3



ROV USBL waypoints for archaeological features and test pits

Figure 4



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