

CEFAS FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

2004 RESEARCH VESSEL PROGRAMME /REPORT

REPORT: RV CORYSTES: CRUISE 4x/04

STAFF

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DURATION

10/May/04 – 14/May/04

LOCALITY

Dowsing and Tyne Souter Point disposal site

AIMS (all under project code A1224)

1. To deploy three MiniLanders around the Souter Point disposal site (with associated guard buoys).
2. To undertake a sidescan, QTC and Bathymetry survey of the Souter point disposal site.
3. To take sediment samples for calibration of optical sensors and for TBT analysis.
4. To take water samples for TBT analysis.
5. To undertake a series of short transects using the underwater camera system.
6. To undertake a sub-bottom and SPI camera survey of the disposal site.
7. To service the directional Waverider at the Dowsing WaveNet site enroute.

NARRATIVE (all times are Greenwich Mean Time)

RV Corystes sailed on the midday tide from Lowestoft and arrived in the late evening at the Dowsing WaveNet site. The Guard and Waverider buoys were recovered and after servicing the guard buoy was re-deployed.

On arrival at the Souter Point disposal site off the Tyne after breakfast on the 11th the three MiniLanders and Guard buoys were deployed. A comprehensive Sidescan sonar/QTC/Bathymetry survey was then undertaken of the whole of the Souter Point disposal site. Water and sediment samples were then taken for TBT analysis over the sample array (see Figure 1) during the 12th. In the late evening a Sub-bottom profiler

survey was undertaken in two areas – the top of the pile and the proposed capping trial site.

The remaining sediment samples were taken during the morning of the 13th. Three transects of the disposal site were then undertaken with the underwater TV camera system. Water samples for calibration of the optical sensors were then taken at each MiniLander site before steaming for Dowsing. Just before midnight the Datawell Waverider was redeployed at the Dowsing WaveNet site. RV Corystes docked on the 06:30 on the 14th in Lowestoft.

RESULTS

- 1) Three MiniLanders were deployed on the Souter Point disposal site. Water and sediment samples were taken for calibration of the optical sensors.
- 2) Water and sediment samples were collected from a “cruciform” shaped array (see Figure 1) for TBT analysis (stations Cap1 to Cap 12) to provide a baseline.

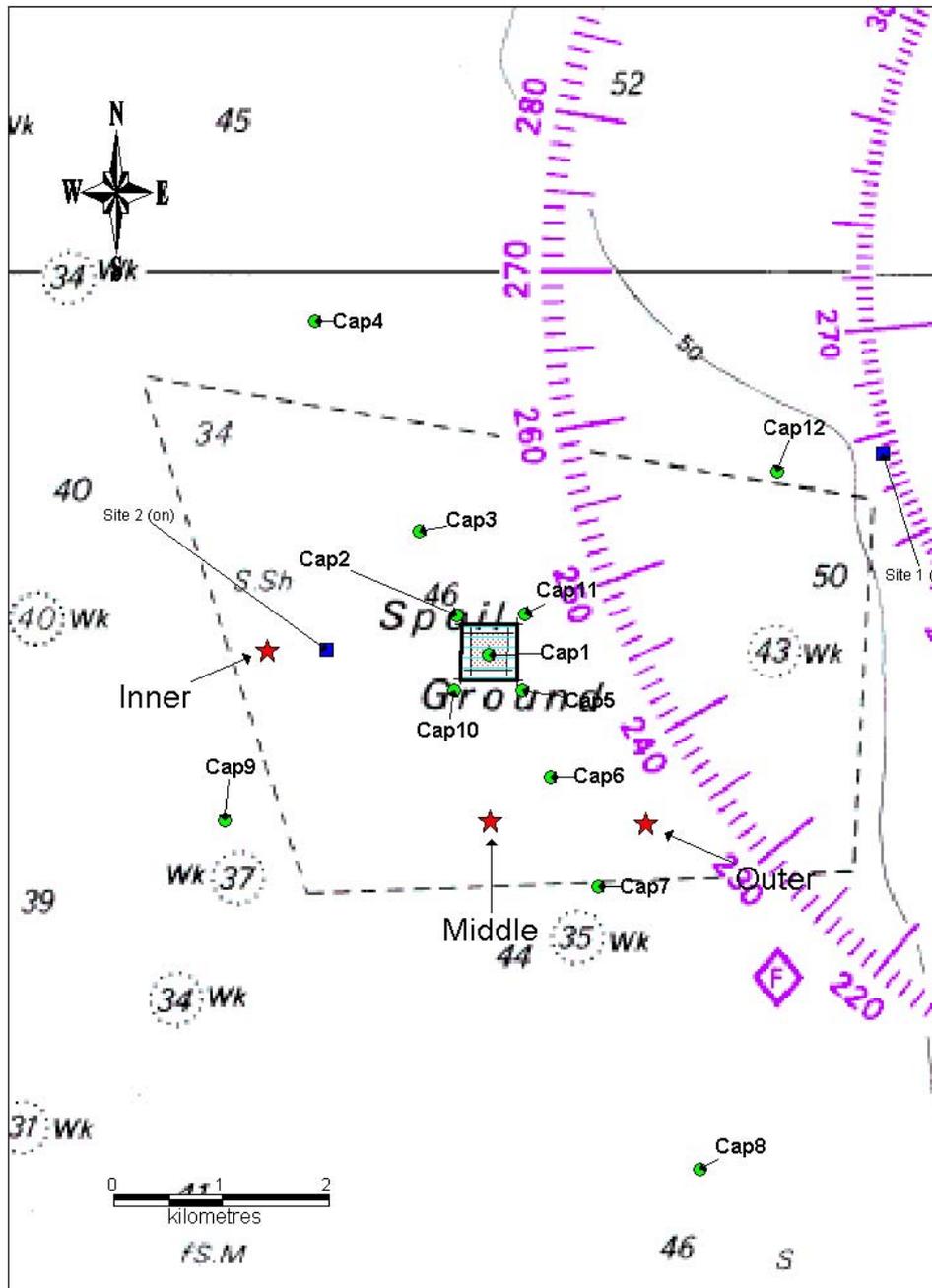


Figure 1 - Map showing the locations of the MiniLanders (red stars), sediment and water sites (green circles) and extra sites identified in A1224 (blue squares).

- 3) Fourteen SPI camera stations were completed at the twelve “Cap” sites, two sites identified for A1224 and a site on the top of the pile (see Figure 1).
- 4) A comprehensive sidescan sonar, QTC and Bathymetric survey (not swathe) was undertaken over the whole site (see Figure 2). Two further high resolution lines (100m range, 10 cm resolution) were run east-west (not shown) as “tie lines”.

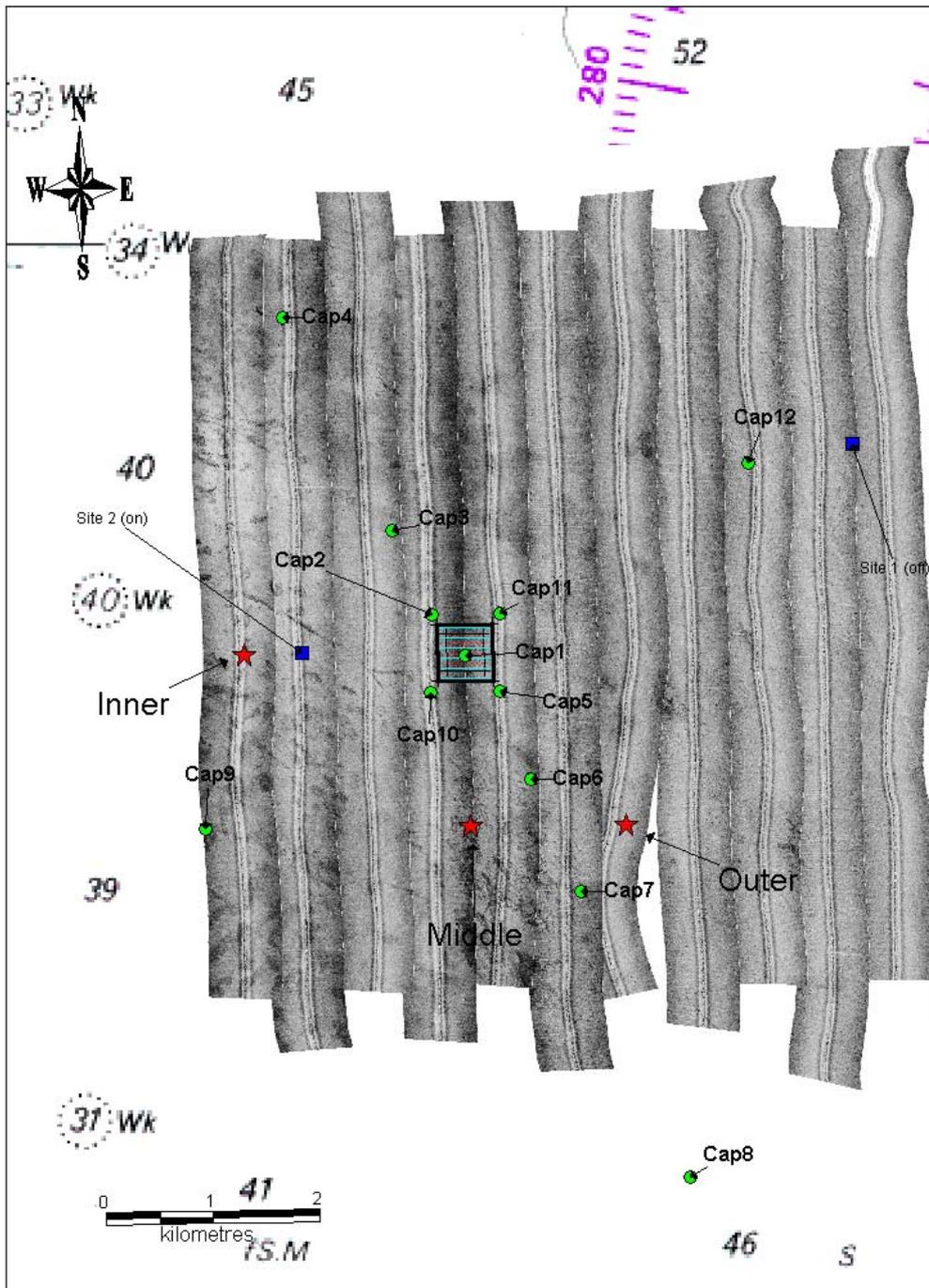


Figure 2 - Map showing the sampling sites (from Figure 1) and the results of the sidescan sonar survey.

- 5) Three transects of the disposal site were successfully undertaken with the underwater TV camera system.

- 6) Two areas, the top of the relict deposits in the North – western corner and the proposed capping trail site were surveyed using a sub-bottom –profiler (see Figure 3).

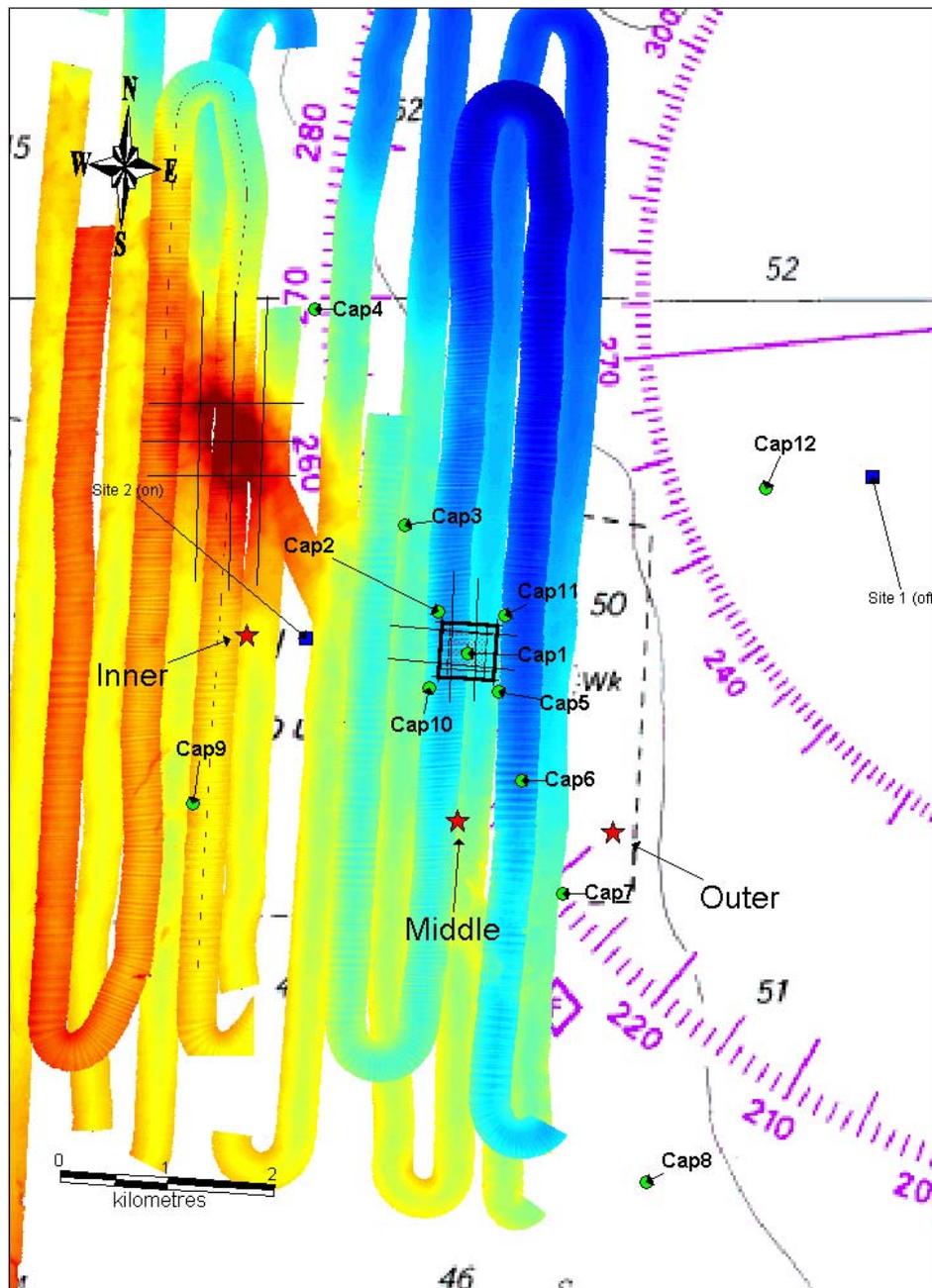


Figure 3 - Map showing the Swathe Bathymetry (collected in 2003), the sampling sites (from figure 1) and also the sub-bottom profiler lines on the top of the pile and also the proposed trail deposit site.

- 7) The Dowsing Waverider was successfully serviced.

(Scientist-in-Charge)

11/01/03

INITIALLED

DISTRIBUTION

Basic List +

A N Other (i.e. scientists on the cruise)

Julian Metcalfe

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