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MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1984 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 7B

STAFF:

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DURATION:

Left Plymouth 1040h 11 June
Arrived Southampton 1230h 16 June
All times are Greenwich Mean Time

LOCALITY:

Plymouth sewage sludge dumpsite
Start Bay
Exeter sewage sludge dumpsite
Nab Tower dumpsite

AIMS:

1. To measure near bed currents and suspended particulate matter in the vicinity of the Start Bay dredged spoil dumpsite.
2. To collect cores from the site for metals analysis and radiometric dating.

NARRATIVE:

CLIONE left Plymouth at 1040h on 11th June. As the ship's course was close to the Plymouth sewage sludge dumpsite the opportunity was taken to collect 5 cores along a transect through the area (for radiometric dating and metals analysis). CLIONE then steamed to Start Bay, arriving at 1640h. A grid of 20 grab stations was worked in the vicinity of the dredged spoil dumpsite. On the basis of particle size analyses of these samples a site was selected for deployment of the Near-Bed velocity recorder (NBVR) CLIONE was then 3-point anchored and remained at anchor until 1350h on 15th June. It should be noted that the anchoring technique limited movement of the ship to less than 200 ft and thus facilitated the effective completion of the near-bed work. The NBVR was deployed and a series of experiments carried out with diver assistance (see results). CLIONE left Start Bay at 1710h on 15th June and sailed towards the Nab to retrieve a current meter rig deployed on the first part of CLIONE 7. On the way to Nab 5 cores were collected from the Exeter sewage sludge dumpsite. The current meters were retrieved 0630h on 16th June. Attempts were then made to collect a series of cores from the Nab Tower dumpsite. However, no samples were collected as the gravelly nature of the seabed prevented the effective operation of the Tennant corer (difficulties in sampling this area have been experienced on previous cruises). CLIONE docked at Southampton at 1230h on 16th June.

RESULTS:

1. Aim 1 was successfully completed.
2. Aim 2 was successfully completed.
3. A sediment survey was carried out in the vicinity of the new dredged spoil dumpsite in Start Bay.
4. The following additional experiments were completed during the Near Bed Velocity Recorder deployment.
 - a. TV observations of natural sediment and 'dredged spoil' movements were recorded and are to be examined in relation to the NBVR current data.
 - b. 3 different NBVR sampling regimes were used to determine the effect of data collection rate on the eventual quality of information produced.
 - c. The effect of rig orientation (relative to water flow) on the quality of the current meter records was examined.
 - d. Various checks on rig stability were made in preparation for future non-assisted deployment.
 - e. A cine film of Day grab operation was made.
5. Cores were collected from the Plymouth and Exeter dumpsites (for radiometric dating and metals analysis).
6. A current meter rig was recovered.

S Rowlett
4 July 1984

SEEN IN DRAFT: J R FRENCH (Captain)

INITIALLED: H W H

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