

R1/12

Not to be cited without prior reference to the Marine Laboratory, Aberdeen

FRV *Scotia*

Cruise 0695S

REPORT

11 - 17 April 1995

Ports

Loading: Aberdeen
Unloading: Aberdeen

Personnel

A McIntosh HSO (in charge)
D C Moore SSO
F Armstrong SO
C Robinson Visitor
C McRae (Miss) Visitor
F Boyle Visitor

Objectives

1. *Braer* oil spill effects on benthos and hydrocarbon loadings in sediments and fish.
2. Locating and delineating single well drilling sites, where pseudo-oil based muds have been used, using RoxAnn and sampling sediments from these sites.

Estimated days per project:

5 days BIH; 2 days BIG1

Narrative

After all gear and equipment had been loaded and secured, *Scotia* departed from Aberdeen at 1000 hours on 11 April and made passage north to the first sampling site. Between 2330 hours on 11 April and 0700 hours on 13 April, 30 stations were occupied and provided sediment samples taken by Day grab and Craib corer for total hydrocarbon concentrations, macro benthos population analyses and redox potential measurements. Due to impending worsening weather conditions, further sampling in this area was suspended and *Scotia* made passage north, taking in two trawl sites, where sediment sampling on the west Shetland coast was underway by 1830 hours. Sampling by grab, corer and bottom trawl was completed in this area by 0330 hours on 15 April, when passage was made south to the single well drilling site to be investigated.

Delineation of the well site was conducted by making multiple passes over the area while recording continuously with the RoxAnn hydro-acoustic processor connected to the ship's echo-sounder. Sediment samples were taken at 200, 500 and 1,000 m from the centre of the drilling site in the residual current direction, and from 200 m upstream of the centre. A number of additional samples were taken for "sea truth" comparison with the ground type discrimination provided by RoxAnn.

This sampling programme was concluded by 2000 hours on 16 April, when *Scotia* made passage south to Aberdeen, docking at 0500 hours. Personnel were disembarked by 0900 hours on 17 April.

Results

All sediment and fish samples taken were treated according to standard protocols. Analyses will be carried out in the Marine Laboratory and elsewhere and the results presented in due course.

A McIntosh
15 May 1995

Seen in draft: P Ramsay, Master

