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FRV "GOLDSEEKER"

CRUISE 5/88

5GR88

Report

18 April-7 May

Personnel

P W Balls	SSO	
W R Turrell	HSO	(18-22 April)
R D Adams	SO	(22 April-7 May)

Objectives

1. To perform a detailed examination of the front between the Firth of Clyde and the North Channel.
2. To carry out a hydrochemical survey of the inner Firth of Clyde, Clyde estuary and associated sea lochs in order to identify the origin of manganese rich suspended particles observed in the outer Firth.
3. Grab samples of surface sediments will be taken at some sites.

Narrative

The scientific staff joined "Goldseeker" at Troon on the afternoon of 18 April. After loading the ship sailed the following day to Stranraer. On route the front separating the Firth of Clyde from the North Channel was located using the continuous output from a thermosalinograph.

The ship was prevented from sailing on 20 April and the morning of 21 April as its batteries were not charging. Repairs were completed on the 21st and the ship sailed at 1400 hrs to continue work at the front. A line of hydrographic stations were worked on the 22nd before the ship steamed to Troon for the changeover of scientific staff.

The hydrochemical survey of the Clyde estuary and sea lochs commenced on the 23rd. Loch Fyne was surveyed before the half landing in Tarbert on the 25th. The survey continued between 26 April and 2 May covering Kilbrannan Sound, Bute Sound, the Inner Firth, Lochs Long, Goil and Striven. Two estuarine surveys were also undertaken before the half landing in Rothesay on 3 May. The survey was completed on 4 May after which the remainder of the cruise was devoted to a detailed examination of the Irvine Bay front.

The ship docked in Troon at 1400 hrs on 6 May and staff left the following morning.

Results

Samples await analysis in the Laboratory for salinity, suspended solids loading, particulate carbon, dissolved and particulate trace metals. The results should help in identifying the source of the manganese rich (trace metal enhanced) particulate material previously observed in the Firth of Clyde. Dissolved oxygen analysis performed aboard indicates possible depletion in the bottom waters of some of the sea lochs, such areas are also likely to have enhanced dissolved manganese concentrations.

Philip Balls

11 May 1988

Seen in draft: D Findlay