

R1/6

In confidence: Not to be quoted without reference to the Laboratory

FRV CLUPEA

Cruise 5/79

Report

30 April - 10 May 1979

Personnel	J H A Martin	SSO	(in charge)
	I M Davies	BSO	
	A Ward	SO	

Objectives

1. To monitor the rate of dilution of segregated ballast from a tanker discharging into Sullom Voe
2. To conduct hydrographic and chemical surveys in Busta Voe and in Sullom Voe including sampling of hydrocarbon and heterotrophic analysis
3. To evaluate the CSTD recorder
4. To lay and recover 4 sets of Sedimentation Traps in Sullom Voe
5. To collect benthos samples near the oil terminal area.

Narrative

CLUPEA sailed on Tuesday 1 May, twenty-four hours late due to storm force winds. North of Rattray Head the ship diverted to Sinclair Bay due to worsening conditions accompanying a severe gale warning and finally reached Sullom Voe on the Wednesday evening. Work was carried out in Sullom Voe from Thursday morning 3 May until Tuesday evening 8 May apart from the weekend break in Lerwick. CLUPEA docked in Buckie at 2130 on Wednesday 9 May.

Results

1. Five segregated ballast tankers discharged 118,600 metric tons of ballast water from a variety of sources including the Humber, Thames and the Continent. A survey of the Voe was completed on four separate days with temperature, salinity, nitrate and silicate samples taken. Samples of the ballast water were also obtained.
2. The axial stations in the Voe were sampled for temperature, salinity, nitrate, phosphate, silicate and oxygen. Repeated samples were taken for chlorophyll, hydrocarbon and heterotrophic analysis. The results await analysis in the Laboratory. Samples were taken from the shores of Sullom Voe and at control shores during a visit to the area by car from

Lerwick. The car was kindly lent by the Fishery Officer. These samples were used for hydrocarbon and heterotrophic analysis. Time lost prevented a visit to Busta Voe.

3. The CSTD recorder wasn't available for this cruise and consequently Mr Henderson withdrew from the cruise.
4. Due to the delay in starting work in Sullom Voe, only two sets of Sedimentation Traps were deployed on 3 May. They were successfully recovered on 8 May.
5. Three duplicate sets of Benthos samples were collected at pre-selected positions near the oil terminal area.
6. Small 3-4 mm diameter Aurelia aurita were abundant in the upper reaches from Scatsta Ness to the upper basin.

Thanks are expressed to all concerned with collecting samples from the tankers and with the Sullom Voe Port Authority for their ready cooperation throughout the cruise.

Seen in draft: G Geddes

J H A Martin

24 May 1979