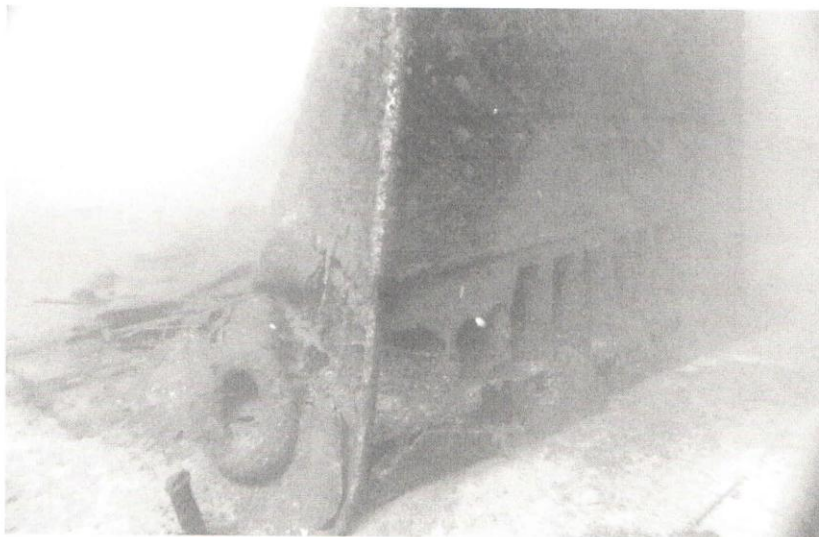


RFA DARKDALE SURVEY



SALVAGE AND
MARINE
OPERATIONS

SURVEY REPORT

This document was prepared following the survey of *RFA Darkdale*, at St Helena in 2012 by Salvage and Marine Operations.

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Executive summary

The *RFA Darkdale* was a tanker stationed at the South Atlantic island of St Helena to act as a fleet tanker in World War II. In October 1941, she was attacked and sunk by a U Boat and since that time has been slowly weeping oil that is visible as a light sheen over the wreck site.

In 2010 a larger leak of oil occurred resulting in calls from the Island's Governor and the Foreign and Commonwealth Office (FCO) for the Ministry of Defence (MoD) as the owner of the wreck to take action. Concern was also raised as it was believed that unexploded ordinance was scattered across the bay causing a hazard to visiting ships and yachts.

In May 2012, a MOD team from Salvage and Marine Operations (S&MO) supported by environmental scientists from RPS Consultants surveyed the wreck and the surrounding bay to assess the condition of the wreck and the risk posed by it.

The survey showed that the wreck lies in two parts. The bow section lies inverted and in very good condition given the age of the wreck and the time submerged. The stern section lies on its port side and has suffered substantial torpedo damage.

The bow section is estimated to contain between 2326 and 4952 m³ of oil. A more precise estimate of the quantity was not possible due to the constraints imposed by the location of the wreck and the survey tools available.

The environmental study found generally low levels of hydrocarbon contamination in the water column. Sediment samples were comparably more contaminated and levels of various hydrocarbon compounds exceeded European Quality Standards (EQS). The majority of the fish samples were found to contain low level hydrocarbon contamination; approximately 10% of the fish /shellfish sampled exceeded the relevant EQS's and may be a hazard to human health if consumed.

The wreck continues to corrode and the eventual release of the oil is inevitable unless there is an intervention to remove it. The environmental study into the potential effects in the event of a large spill, found that there is a short term lethal risk to inshore fish species. Oil persisting in the environment would further hamper recovery of these species potentially causing long term sub-lethal effects.

The socio-economic impact of an acute spill was assessed as being less than £100k. This is due to the tourist industry being in its infancy and the commercial fishing grounds being outside the area likely to be affected by a spill. The opening of an airport on the island in 2015 will mean that the economic impact of an oil spill will rise with time as the tourist industry grows.

The local concern for unexploded ordinance in James Bay is considered to be unfounded. There are a small number of shells on or very close to the wreck but no evidence was found of ordinance being scattered more widely across the bay.

Following the survey and subsequent analysis and review, the following recommendations are made:

1. St Helena Government is advised to prohibit anchoring within 200 m of the wreck site.
2. St Helena Government is advised to impose a fishing ban over the wreck and immediate area.
3. A larger sample of fish from a wider area should be taken and analysed for hydrocarbon contamination.
4. The remaining oil on the wreck is removed.
5. A long term programme of fish and environmental monitoring is set up