

## MEMORANDUM

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**TO:** Dennis Saito  
Tesoro Hawaii Corp.

**DATE:** October 8, 1998

**FROM:** Joan Duffield *JD/mc*  
ENTRIX

**SUBJECT:** *Survey Results of Red-footed Boobies at Lehua Island*

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On September 23, 1998, a small amount of pooled oil and tar balls were reported from residents of Niihau. This transport of oil to Niihau, located west of Kauai, raised concerns that oil could have also reached Lehua, located just north of Niihau. To address the potential occurrence of oil on Lehua, a boat trip was conducted on September 25, 1998. Under the command of Shane Hooker of the U.S. Coast Guard, the investigation team included Beth Flint, LeeAnn Woodward, and David Woodside from the U.S. Fish and Wildlife Service; Kent Brewer with International Bird Rescue Research Center; Rich Rosen of Tesoro; Don Heacock with the Department of Land and Natural Resources; and Joan Duffield with ENTRIX.

The boat departed from Nawiliwili Harbor and traveled west along the southern coast of Kauai. While on-route to Lehua, Beth Flint recorded observed seabirds and marine mammals. Very few birds were recorded along the southern coast of Kauai. Between 0646 and 0932 approximately 15 birds were observed, represented by five species, including the great frigatebird, white-tailed tropicbird, brown booby, red-footed booby and wedge-tailed shearwater. It was not until the boat was within seven miles of Lehua, that large flocks of foraging seabirds were observed. Wedge-tailed shearwaters were the dominant foraging species, but red-footed boobies, one dark-rumped petrel and a few Newell's shearwaters were observed in the mixed flock of seabirds. Observed marine mammals include a monk seal along Shipwreck Beach on Kauai, one juvenile female monk seal on Lehua Island, and bottlenose dolphins off the southern coast of Kauai.

Due to the steepness of Lehua, the shoreline access was very difficult. After circumnavigating the island, it was determined that the only safe access to the island was along the south side. Once the island was reached, three survey teams were formed. The seabirds (mostly red-footed boobies) were surveyed by two teams consisting of Rich Rosen and Kent Brewer, while the other team included Beth Flint, Joan Duffield and David Woodside. The third team (Don Heacock and LeeAnn Woodward) inspected the rocky intertidal/subtidal habitat for any evidence of oil. The survey period extended from 1130 to 1300.

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Approximately 200 red-footed boobies, 4 red-tailed tropicbirds, and 2 great frigatebirds were visual checked with binoculars for oil. No oil was detected on the birds observed. Other bird species observed on Lehua Island and the surrounding waters included the golden plover, black noddy, blue-gray noddy, and wandering tattler.

Additionally, no oil was found in the rocky intertidal areas along the southern shoreline. The shoreline area was characterized as very diverse and abundant by Don Heacock. One juvenile female seal was resting in the rocky intertidal area and had with no evidence of oil.

Four live Dutch (European) rabbits were observed during the survey period. Additionally, two rabbit carcasses were located. Only the skeleton was remaining on one of the carcass, while the other carcass was in the early stages of decomposition (pelage was still quite distinct).