

**Aviation Safety Investigation Report
199800313**

**Bell Helicopter Co
412**

17 January 1998

Readers are advised that the Australian Transport Safety Bureau investigates for the sole purpose of enhancing transport safety. Consequently, Bureau reports are confined to matters of safety significance and may be misleading if used for any other purposes.

Investigations commenced on or before 30 June 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with Part 2A of the Air Navigation Act 1920.

Investigations commenced after 1 July 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with the Transport Safety Investigation Act 2003 (TSI Act). Reports released under the TSI Act are not admissible as evidence in any civil or criminal proceedings.

NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at www.atsb.gov.au.

Occurrence Number: 199800313 **Occurrence Type:** Incident
Location: 209km NE Truscott, (ALA)
State: Other **Inv Category:** 4
Date: Saturday 17 January 1998
Time: 1800 hours **Time Zone** CST
Highest Injury Level: None

Aircraft Manufacturer: Bell Helicopter Co
Aircraft Model: 412
Aircraft Registration: VH-BZH **Serial Number:** 33044
Type of Operation: Charter Passenger
Damage to Aircraft: Nil
Departure Point: Truscott NT
Departure Time: 1657 CST
Destination: Southern Cross Oil Rig

Approved for Release: Saturday, July 11, 1998

FACTUAL INFORMATION

The helicopter was being refuelled on an oil rig. The fuel sample taken from the oil rig fuel tank before fuelling commenced was clear of contaminant. However, the sample taken after fuelling was completed had a different colour and displayed obvious contamination with fine metallic and other particles. The helicopter was de-fuelled and its fuel system cleaned before it was released to service.

The oil rig operator reported that the contaminant had been inadvertently left in the oil rig fuel tanks after the rig had undergone refit in Singapore. The operator also reported that the fuel was regularly tested, although the testing carried out had not discovered the contaminant. The contaminant was only discovered when the rig's fuel pumps had been run for sufficient time to refuel the helicopter. The time was probably sufficient to stir the contents of the tank and bring the contaminant into suspension where it was delivered to the helicopter. The refuelling procedures used appeared to have been appropriate to ensure the helicopter did not take off with contaminated fuel. However, the procedures were not adequate to ensure good quality fuel was delivered to the helicopter.

SAFETY ACTION

As a result of this occurrence, the Bureau of Air Safety Investigation (BASI) is reviewing the adequacy of aviation fuel quality control procedures on oil rigs. Any safety action arising from this review will be forwarded to the relevant action agencies and will be published in the BASI Quarterly Safety Deficiency Report.

