

**During major maintenance on an Oil Circuit Breaker (OCB) oil testing identified that the oil was heavily contaminated with water.**

### What happened?

Whilst carrying out major maintenance on an Oil Circuit Breaker (OCB) at Harker sub station, the team were required to remove and replace the oil via Oil Management Unit (OMU) and Shirley tankers.

When refilling with clean oil, a sample was taken from each phase to check for quality, and it was found to be heavily contaminated with water.

The oil was subsequently drained, and each phase internally inspected. All phases were found to contain an unknown material.

Of the three 500ml samples initially taken and sent for analysis, one was found to contain 40% moisture and the other two 5% moisture and 32 ppm moisture.

If the samples had not been taken to check for quality and the circuit returned to service, the circuit breaker would have catastrophically failed.

### What you need to do now:

Ensure that insulating oil is tested as per work specifications, and that results are checked prior to equipment being returned to service.



Reported date: 04/03/2024

Location/Site:

HARKER 132KV S/S,  
HARKER,  
CUMBRIA,  
CA6 4DQ

Responsible ET department:

Asset Operations

### Key contact(s)

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