

# Incident Summary

## Carsphairn WTW Repeated *Cryptosporidium* detections November 2016 to January 2017

DWQR Inspector:  
Matthew Bower

Event Nos. 8127 & 8265

### Event Category: Significant

From November 2016 to January 2017 there were ten detections of *Cryptosporidium* oocysts in Carsphairn WTW final water, which is a small treatment works in the North of Dumfries and Galloway. The treatment process at this site is nanofiltration membrane, which should present a barrier to *Cryptosporidium* if it is operated and maintained correctly. Following investigation by Scottish Water it was discovered that some of the membrane seals had split and that some of the welds along the membrane itself were faulty. Scottish Water concluded that these issues were due to manufacturing faults. Membranes were replaced in an effort to resolve the issue, until eventually all membranes had been replaced. This action finally halted the detection of oocysts in water leaving the treatment works.

The incident was caused by an integrity failure of the membranes used as the primary treatment barrier. This enabled *Cryptosporidium*, which was present in the raw water, to enter the supply in relatively small quantities.

The event has been categorised as Significant. Scottish Water has identified a number of actions which DWQR accepts are appropriate and will monitor to ensure they are completed prior to signing off the incident. DWQR made one additional recommendation.