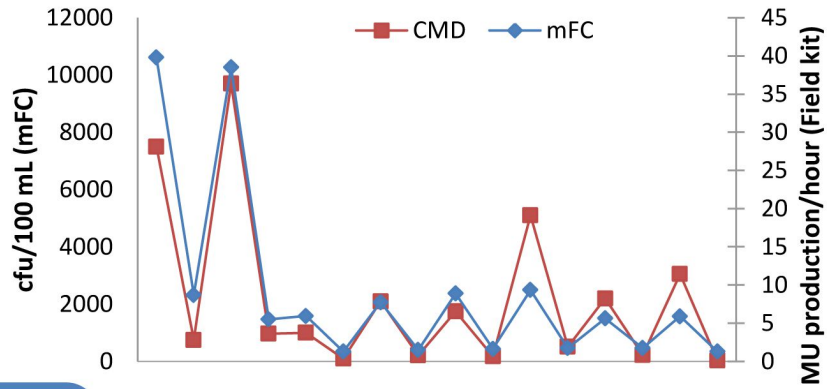
aqualytic™
Laboratory & Environmental

# Application Note

## Tracing contamination from sewer leakages with Colifast Field Kit Rapid Method (15 - 17 min)

The rapid method is capable of quantifying fecal coliforms in water within 75 min.
This method has proved to be very efficient in tracing:

- Leakages from sewage network
- Combined Sewages Overflows
- Identifying water bodies of unknown origin during sewer and water pipe renovation




## Aplication Overview

The Norwegian Public Roads Administration is currently excavating a tunnel that runs below the main waste water pipe transporting sewage from Oslo to the waste water treatment plant. Clearance between the tunnel and the pipe is 3 meters. The Field Kit is used to determine if water emerging from cracks is sewage leaking from the pipe. It is crucial to identify the origin of the water due to the safety of the workers and to take immediate action if the excavation has damaged the sewer pipe.

## Technology Overview

The Field Kit (Colifast Micro Detector) is a complete and portable kit for performing a rapid screening of fecal coliforms is water samples. An analysis takes 75 min but provides an indication of the bacteria level after only 15 min.

This kit contains the CMD (Colifast Micro Detector), an incubator, test-tubes pre-filled with Colifast 6 media, cuvettes, developer, adapters, and disposables needed for field analysis.

The method is based on an enzymatic reaction present in coliforms. The inherent enzyme cleaves the substrate in the Colifast medium, leading to the fluorescent end-product methylumbelliferone (MU). The fluorescence increase per hour is directly correlated to level of fecal coliforms in the sample.

| MU Production/hour | cfu/100 mL |
|---|---|
| < 2.5 | ~ 0 |
| 2.5 | 500 |
| 5 | 1 000 |
| 10 | 2 000 |
| 20 | 4 000 |
| 40 | 8 000 |
| 80 | 16 000 |


+27 12 664 4333
www.aqualytic.co.za