

E.coli water test

Trials were run to determine the **accuracy** and the time it took to obtain a positive result (**turn-around time**) in water containing E.coli bacteria.

The results are shown in the table below...

E.coli count (per ml)	Time to obtain a positive result	Accuracy (%)
Greater than 1 million	8 to 8.5 hours	100
100 thousand to 1 million	8.5 to 9 hours	100
10 thousand to 100 thousand	9 hours	100
1 thousand to 10 thousand	10 to 13.5 hours	100
100 to 1000	13.75 hours	100
10 to 100	16 hours	100
1 to 10	19 hours	78
Less than 1 (but greater than 0)	24 hours	70

Conclusion

If water has a high concentration of faecal contamination (shown by the E.coli count) - such as a sample taken close to a sewage spillage directly into a river or dam - results could be obtained in as short a time as 8 hours with 100% accuracy.

For potable, treated water, where E.coli should not be present at all, a result can be obtained in 24 hours (with an accuracy of between 70% - for very low counts - to 100%).

