

Example: Overnight Water Leakage Test

This simple test allows you to determine if you have a water leak. It requires reading your water meter twice, once at the start of the test, and again after a period of no water use. An example test is below:

1. Choose a suitable time

The offices of ARK Architects suspect they have a water leak. Their offices close at 5pm. The last person leaves at around 5.15pm. This person will take the water meter reading as they leave.

2. Stop all water use

The last person to leave normally sets the dishwasher, but they will leave this until the following day.

3. Read your meter

A photo of the water meter was taken at 5.15pm 27/11/25 which shows the numbers:

0	4	2	2	3	6	0	7
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The first reading for this water meter is 4223.607 m³



4. Wait

The offices were closed overnight; there were no cleaners on the premises using water.

5. Compare readings

At 7.15am 28/11/25 the first person to arrive at ARK Architects took a photo of the water meter which showed the numbers:

0	4	2	2	3	8	1	0
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The second reading for this water meter is 4223.810 m³

6. Calculate water loss per hour

Subtract the first reading from the second reading:

$$\text{second reading minus first reading} = 4223.810 - 4223.607 = 0.203 \text{ m}^3$$

Divide this number by the number of hours of the test. 5.15pm to 7.15am the next morning is 14 hours:

$$0.203 \div 14 = 0.0145 \text{ m}^3/\text{hr}$$

Water meter readings are in cubic metres (m³). 1 m³ is the same as 1,000 litres. Therefore, this number can be multiplied by 1000 to get the loss in litres per hour:

$$0.0145 \times 1000 = 14.5 \text{ litres/hr is the water leakage loss at ARK Architects}$$

This is more than 10 litres per hour and is considered a significant leak. It should be investigated immediately.