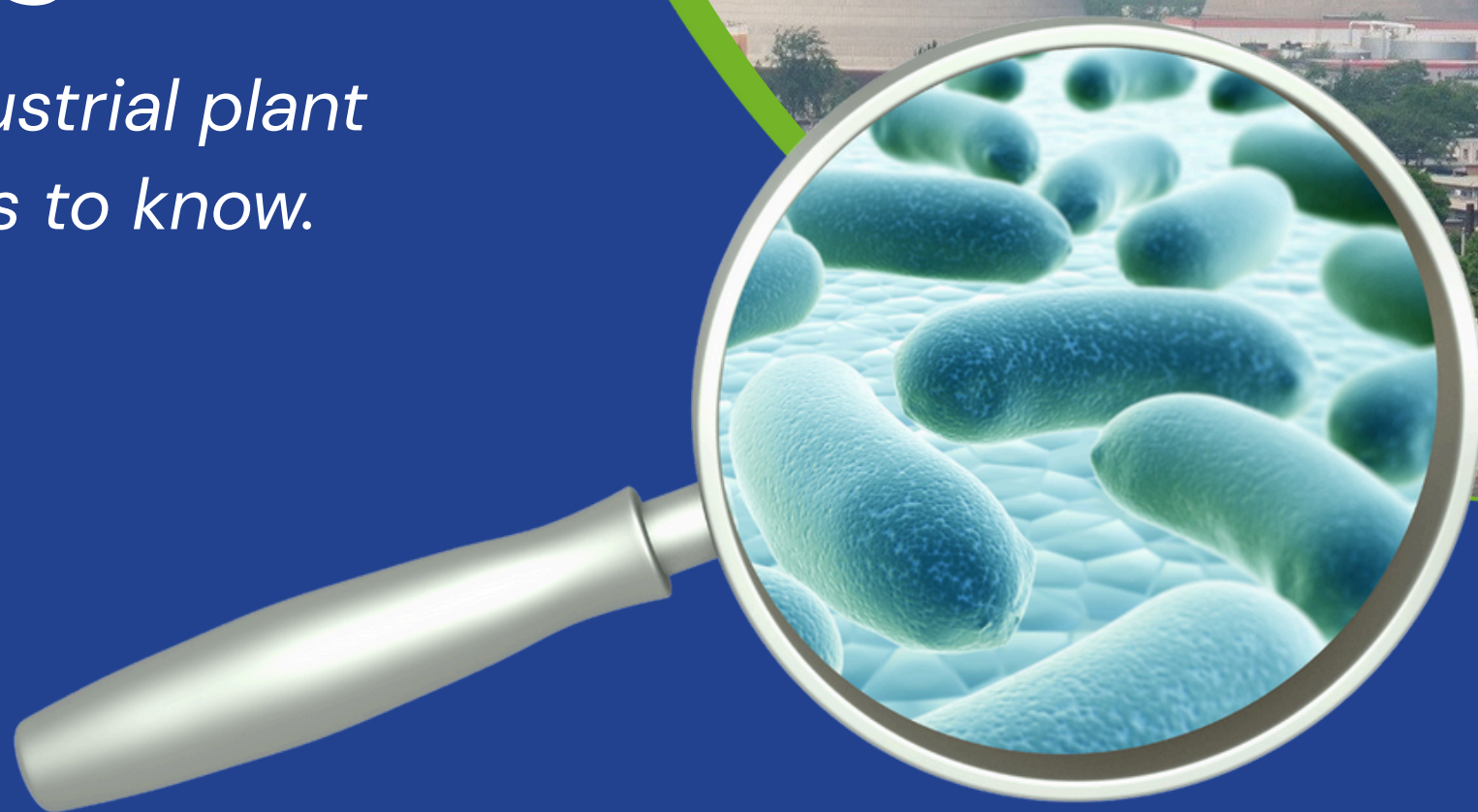




Legionella- A Real Threat in Industrial Water Systems

*What every industrial plant
operators needs to know.*





Why Should You Care?



Legionella thrives in cooling towers,
causing serious health & operational risks.



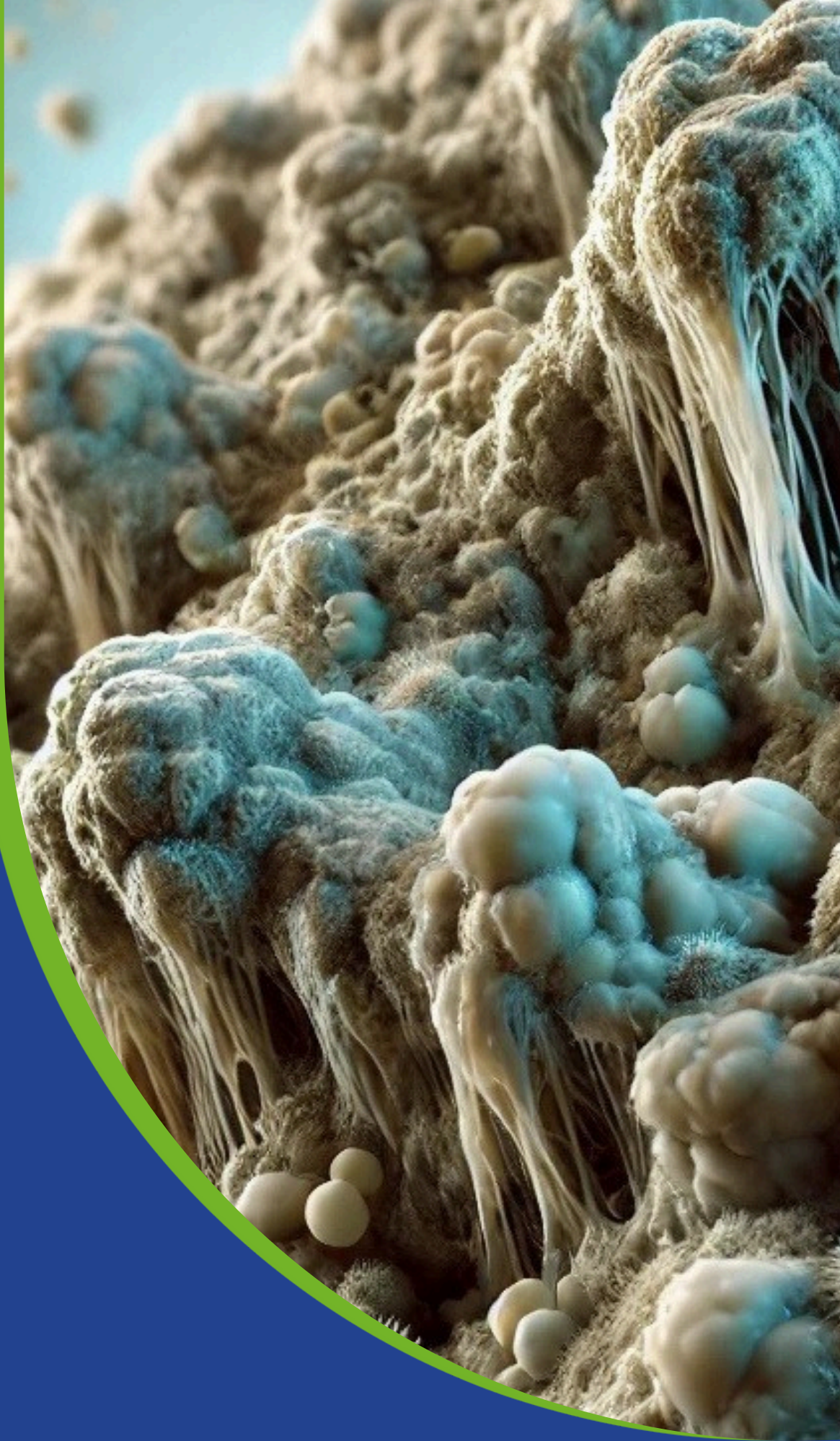
Fact: The 1976 outbreak in Philadelphia led
to the discovery of Legionella, changing
industrial water safety forever.





Biofilms

The Silent Threat



Legionella bacteria hide inside biofilms—slimy layers of microorganisms on surfaces.



Biofilms protect bacteria from disinfectants.



99% of bacteria in cooling towers live in biofilms, not the water.





How Biofilms Damage Water Your System



Higher Energy Costs: A 25µm biofilm layer can increase energy use by **10%!**



Equipment Damage: Microbial Influenced Corrosion (MIC) causes leaks & failures.





Where Does Legionella Grow?

- Warm zones (20-45°C)
- Stagnant water
- Inside organic deposits & amoebae





Common Cooling Tower Risk Factors



Poor maintenance



Inadequate water treatment



Design flaws & stagnant zones





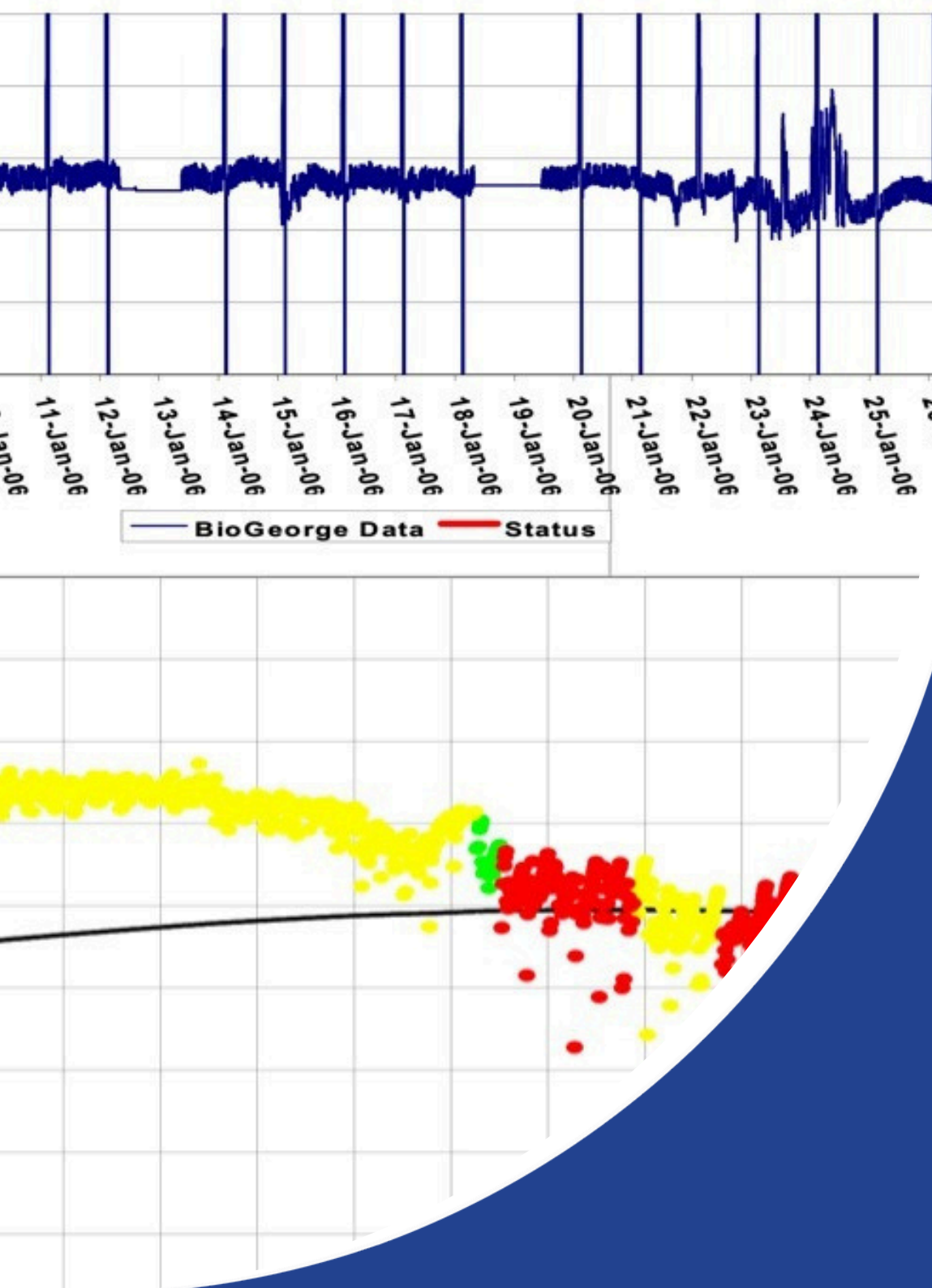
How to Prevent Legionella Growth

- Clean & inspect systems regularly
- Use chemical & mechanical cleaning (biocides, filtration, UV)
- Monitor water quality & biofilms





Monitoring & Detection Methods

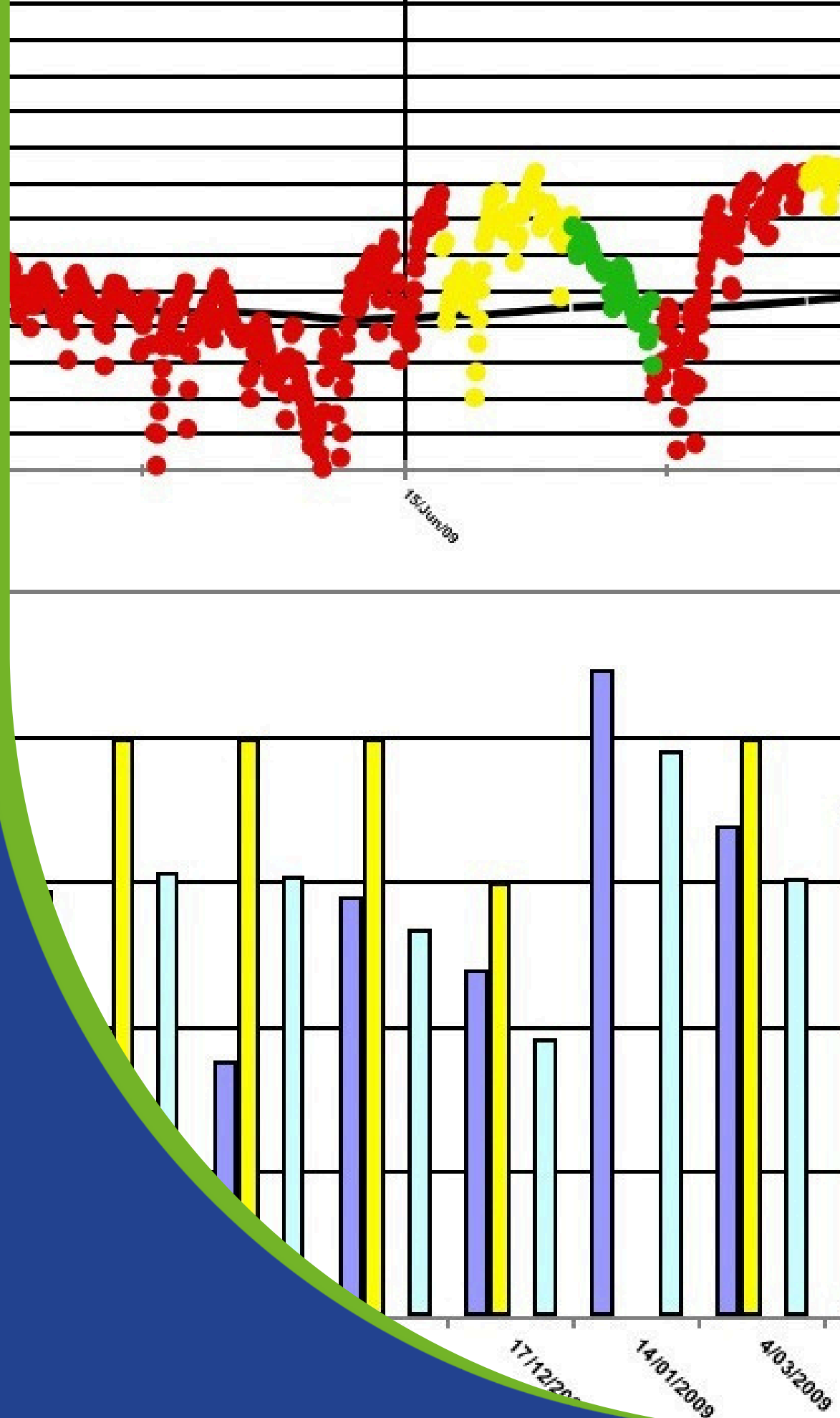


- Culture Testing (7 days) – Accurate but slow.
- PCR Testing (2 days) – Detects Legionella DNA fast.
- Biofilm Sensors – Real-time monitoring.





Case Study- What Works Best?



Facility switched from BCD biocide to Isothiazoline & improved biofilm monitoring.

Results: Lower Legionella levels, better efficiency, reduced maintenance costs.





Want to learn more about the case study or get your system checked?

- Schedule a cooling tower risk assessment.
- Improve biofilm monitoring.

Contact us!

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