



# MICROBIAL ANALYSIS

MICROBIAL TOOLS THAT WORK FOR YOU AND YOUR PROJECT

*Remote Water Solutions will help you reduce waste, maximize revenue, and be environmentally mindful.*

The microbial composition significantly influences industry water quality and usability, thereby affecting well production, quality, and longevity. Remote's Microbial Assessment process employs robust microbial analytic tools, seamlessly integrating with other water and production variables to develop comprehensive, reliable, and pragmatic solutions.

Our microbial analytic systems employ a cross-functional approach that integrates both traditional and contemporary techniques. By combining culture-based "bottle-turn" techniques with enzyme-linked fluorometer analysis, we offer fundamental microbial population and metabolic analysis. Additionally, a more comprehensive 16S metagenomic analysis provides forensic-level identification of each bacteria and their relative abundance within the ecosystem.

**Simple solutions that support the bottom line have never been more clear.**

remote



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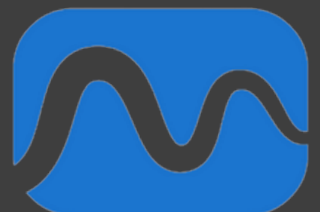
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# UTILIZE OUR OIL & GAS MICROBIOLOGY SERVICES TO TREAT YOUR FRAC WATER

Microbes thrive wherever water exists, including drilling mud, stimulation fluids, produced water, proppant, and pipelines. If untreated, they lead to fouling, souring, corrosion, and costly setbacks, Remote can help treat those microbes



## ANALYSIS METHODS

MICROBIOLOGY COMPLETED FOR YOUR PROJECT

### ATP:

- Rapid 5 min testing for onsite testing
- Relative enumeration of bacteria levels based on luminase reaction with ATP

### Culture Based:

- Serial Dilution Bottles (SRBs, APBs, IRBs)
- Industry standard but not actually effective (grow < 1% of bacteria present in any given sample)

### DNA BASED TOOLS:

- (16S and Metagenomics)
- Forensic equivalent ID to Spp. Level of bacteria
- Leading indicators that can be predictive of declines (scaling and fouling)

### MYCOMETER:

- Rapid 15 min test for onsite testing
- Microbial populations presented as Bactiquant Value (BQV)
- Readings generated by fluorometer analysis of resultant fluorescence from microbial-specific enzyme reaction.
- BQV values converted to CFU/mL.

## WE HAVE SOLUTIONS FOR YOUR WATER PROBLEMS



ClO<sub>2</sub> WORKS GREAT WITH MANY BIOCIDES



WE FIND THE RIGHT BIOCIDES FOR YOUR PROJECT



TESTS COMPLETE ON SITE WITHIN 15 MIN



OPERATOR TRAINING AVAILABLE



CROSS FUNCTIONAL APPROACH



FORENSIC LEVEL IDENTIFICATION OF BACTERIA

## OPTIMIZATION OVERVIEW

Remote's approach to water quality optimization operates through three crucial mechanisms. Firstly, understanding the basic quantity and composition of water-related bacteria is vital for well health, serving as a leading indicator for potential treatment requirements.

Secondly, the ability to enumerate bacterial populations in real-time enhances biocide selection and dosing, optimizing them for specific well conditions and cost-effectiveness.

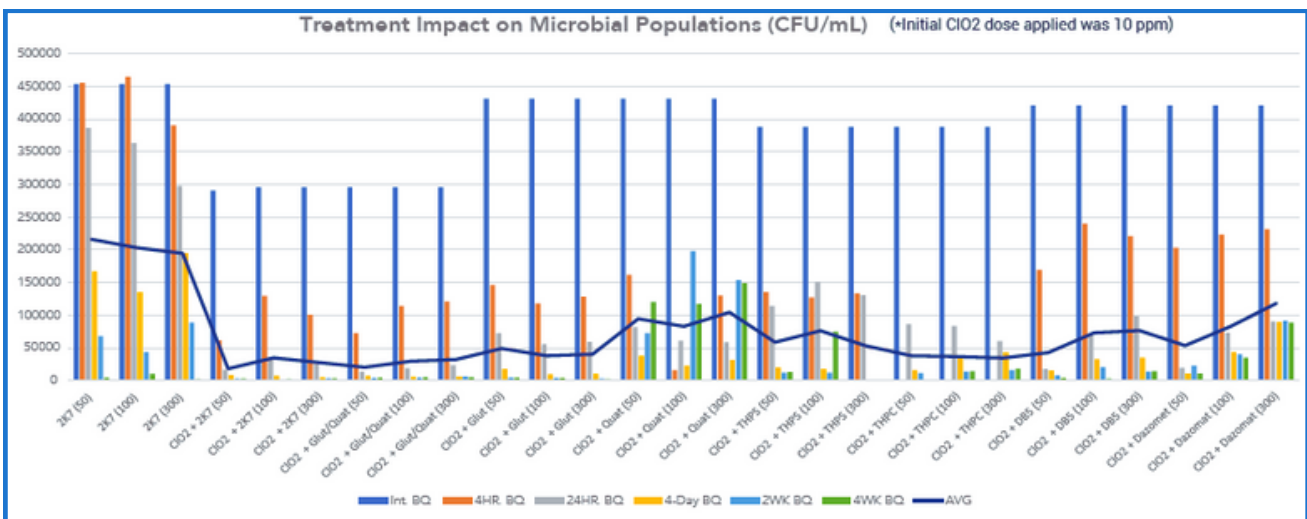
Lastly, employing forensic-level microbial analysis allows for the identification of specific deleterious bacterially-related issues within a well or group of wells, leading to targeted remediation solutions. Recognizing the profound health and safety impacts of microbial metabolites, Remote underscores the importance of proper and effective bacterial control in water as a critical component of its commitment to safely providing complete water solutions.

# LEADING CANADA'S WASTEWATER TREATMENT INDUSTRY!

Utilizing cutting-edge technology and experienced personnel, we provide, maintain, and operate a mobile fleet of chlorine dioxide generators, wastewater treatment plants, and serve as the premier Poly Tank Supplier for Western Canada



## ClO<sub>2</sub> WORKS GREAT IN CONJUNCTION WITH MANY OTHER BIOCIDES CURRENTLY IN THE MARKET



BE AWARE THAT SOME BIOCIDES LEAD TO RE-GROWTH SCENARIOS, SO WE MAKE SURE YOU USE THE RIGHT ONE FOR YOUR PROJECT

