Laboratory Experiment

Distribution Lines can:

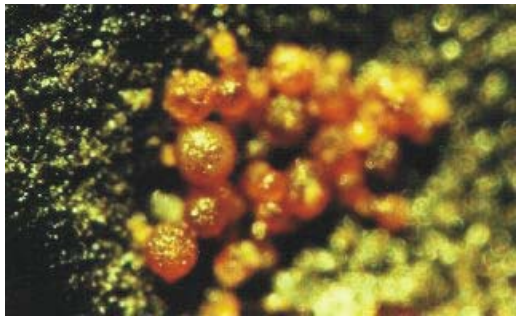
- plug
- reduce flow
- corrode

Plugging causes:

- higher energy costs
- scale build up in pipes
- lower efficiency
- greater operating costs

CB-4 Surfactant

- can destroy plugs
- can kill bacteria
- more effective when hot



Clusters of spherical (wax-like) structures. (Magnification 40x)

Recommended BARTs for Oil & Gas wells are:

- SRB-BARTs
- APB-BARTs

BART™ testers are patented products manufactured by:

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U.S. Patent #4,906,566

ISO 9001:2000
Registered

DBI
Droycon Bioconcepts Inc.

BART™

Biological
Activity
Reaction
Tests

A simple yet effective method for monitoring the population size and/or activity of specific groups of bacteria.

Oil and Gas Wells

Corrosion
Oil & Gas Wells
Microbial Fouling

One of the major concerns in the oil and gas sector is **CORROSION**.

2 bacteria groups cause corrosion:
SRB: sulfate reducing bacteria
APB: acid producing bacteria

Corrosion occurs when water is present in oil or gas.

SRB-APB-BARTs can detect corrosive activity associated with SRB (as hydrogen sulfide induced corrision) and APB (as acid induced corrosion).

SRB

Detects SRB growing under reductive and oxidative conditions. Electrolytic Corrosion Risk relates to the aggressivity of the SRB

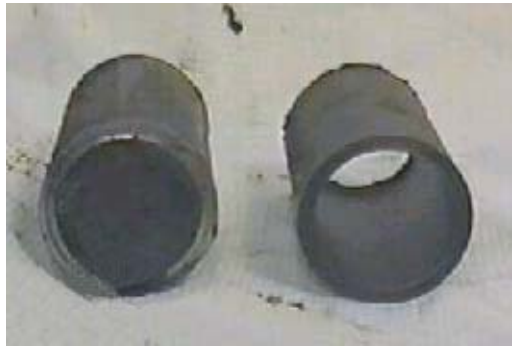
- EASY TO READ
- CAN DO THE TESTS IN THE FIELD
- GIVES BACTERIAL AGGRESSIVITY

APB

Detects the bacteria that can generate acids under reductive conditions. Acidulytic Corrosion Risk relates to the Aggressivity of the APB.

Plugging
Oil & Gas Wells
Microbial Fouling

Common Experiences:
- lost production capacity
- extensive biofilm growth
- formation of plugs



Bacteria can:
- "mine" water out of oil even if only 0.1% water is present in oil.
- use paraffins and anthracenes from oil to coat growths.