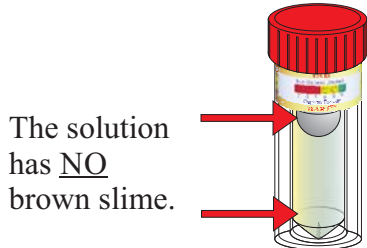


BART™ TEST FOR IRB IRON RELATED BACTERIA

Present/Absent - observe daily for 8 days.

ABSENT
(Negative - Non-aggressive)



The solution has NO brown slime.

PRESENT
(Positive - Aggressive)



A **Brown** slime ring or foam around the ball,

and/or

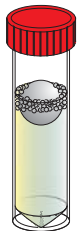
A **Brown** slime growth at the base of tube.

1. View test each day for 8 days.
2. Observe any growths/color changes.
3. Compare with descriptions.

*Note: Refer to page bottom for approximate population

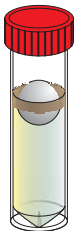
Advanced test information.

Determination of Dominant Bacteria



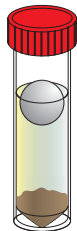
FO

FOAM(FO)
around ball
- Anaerobic
Bacteria.

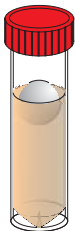


BR

BROWN RINGS(BR), GEL(BG), and/or CLOUDS(BC)
- IRB.

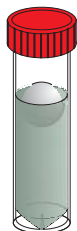


BG

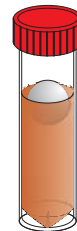


BC

Solution **GREEN-CLOUDY(GC)**
- Pseudomonads.

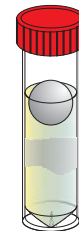


GC



RC

Solution **RED-CLOUDY(RC)**
- Enteric Bacteria.



CL

Solution **CLOUDY(CL)**
- Heterotrophic
Bacteria.



BL

Solution **BLACK(BL)**
- Pseudomonads
and Enterics.

Determination of Potential IRB Population - observe daily for reaction.

Days to reaction - Approximate IRB Population (cfu/mL)



1 - 570,000
2 - 140,000
3 - 35,000
4 - 9000

Aggressive



5 - 2200
6 - 500
7 - 150
8 - 25

Moderate



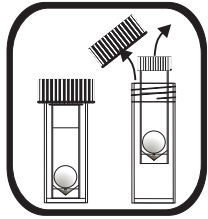
9 - 8
10 - <1

Not Aggressive

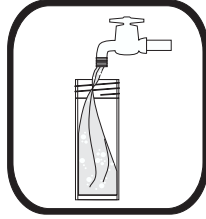
IRB-BART™

For water and wastewater

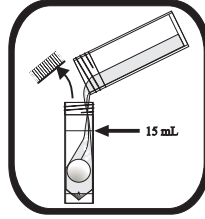
Iron-Related bacteria are difficult to enumerate because they are subdivided into several groupings (e.g., iron-oxidizing and iron-reducing bacteria). Iron-related bacteria can use iron in their metabolism. Taste and odor problems and “red water” are common symptoms of problems due to iron-related bacteria. These bacteria function under different reduction-oxidation (redox) conditions and use a variety of substrates for growth. The IRB-BARTs can detect both iron-oxidizing and iron-reducing bacteria. Common iron-related bacteria include *Gallionella*, *Crenothrix*, *Sphaerotilus*, *Siderocapsa*, and *Thiobacillus ferrooxidans*.



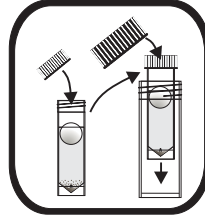
1. Remove the inner tube from the outer tube.



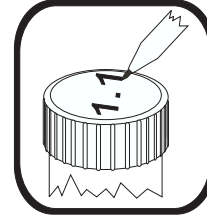
2. Using the outer tube from the BART, or a different sterile container, collect at least 20 mL of sample.
Note: Do not touch or contaminate the inside of the tube or lid. Use aseptic technique.



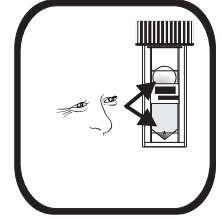
3. Fill the inner tube with sample until the level reaches the fill line.
Note: After removing the cap from the inner tube, set it down directly on a clean surface. To avoid contamination, do not invert the cap.



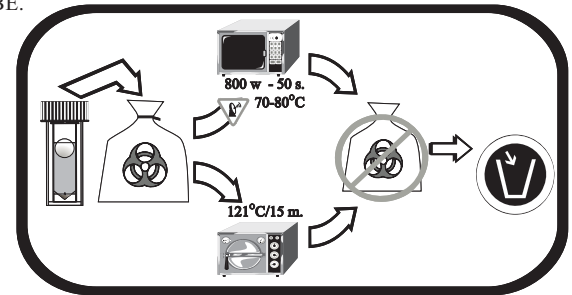
4. Tightly screw the cap back on the inner tube. Return the inner tube to the outer tube and screw the outer cap on tightly. Allow the ball to rise at its own speed.
DO NOT SHAKE OR SWIRL THE TUBE.



5. Label the outer tube with the date and sample origin.



6. Place the BART tube away from direct sunlight and allow to incubate at room temperature. Check the BART visually for reaction daily.



7. Safely dispose using a dedicated microwave oven or by autoclave.

Certificate of Analysis

This certificate confirms that the BART™ product listed by name, lot number, and batch number has been subjected to the full range of Quality Control procedures as outlined in “User Quality Control Manual in support of the BART Biodetection Technologies” published in 2004 by Droycon Bioconcepts Inc.

BART™ Type: IRB-BART

Batch #:

Release date*:

Lot#:

Shipment date:

Expiry date:

* Approval for release includes the following criteria: 1. confirmation of sterility for the vials and caps, 2. approval of the medium as being appropriately formed and acceptable, 3. is sterile, and 4. responds in a typical way to inoculation and incubation using selected defined microbial cultures. Details of these criteria are included in our Web Site.

This certificate confirms that the batch of the BART™ biodetectors listed have satisfactorily passed the QC screening procedures and were approved for release on the date given above

Certificate Number:

This certificate was issued by Droycon Bioconcepts Inc., 315 Dewdney Ave., Regina, SK., Canada, S4N 0E7 as an assurance that the product listed above has passed through the quality control procedures considered essential to the successful use of the testing device.



ISO 9001:2000
Compliant

For more information, visit our web-site at:
<http://www.DBI.ca>