



IDEXX

Automatización de las pruebas microbiológicas

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Sobre IDEXX



- Líder mundial en pruebas microbiológicas de calidad del agua
- Base en Westbrook, Maine, EE.UU.
- 3.4 Bi USD en 2022
- Presencia global en más de 175 países
- +11.000 empleados en todo el mundo (325 en latinoamerica)
- Parte del S&P500, cotizada en NASDAQ

Innovative test kits for water microbiology

Coliform and <i>E. coli</i>	Enterococci	<i>P. aeruginosa</i>	Quality Control	Legionella pneumophila
Colilert® Colilert®-18 Colisure® Colilert® 250	Enterolert® Enterolert®-E Enterolert®-DW Enterolert® 250	Pseudalert® Pseudalert® 250	Quanti-Cult® Water QC	Legiolert® NEW



<i>Cryptosporidium/ Giardia</i>	Heterotrophic Plate Count	Quantification	Accessories	Sars-cov-2
Filta-Max® Filta-Max xpress® Invitrogen Dynabeads® for IMS and accessories	SimPlate® for HPC HPC for Quanti-tray® EasyDisc® NEW	Quanti-Tray® Quanti-Tray®/2000	EZ-DPD™ Sample collection vessels Incubators Sealers	SARS-CoV-2 RT-PCR NEW



IDEXX Tecta

- Innovation in microbiology automation
- The only **rapid, automated** testing system with U.S. EPA approval





Benefits of automation

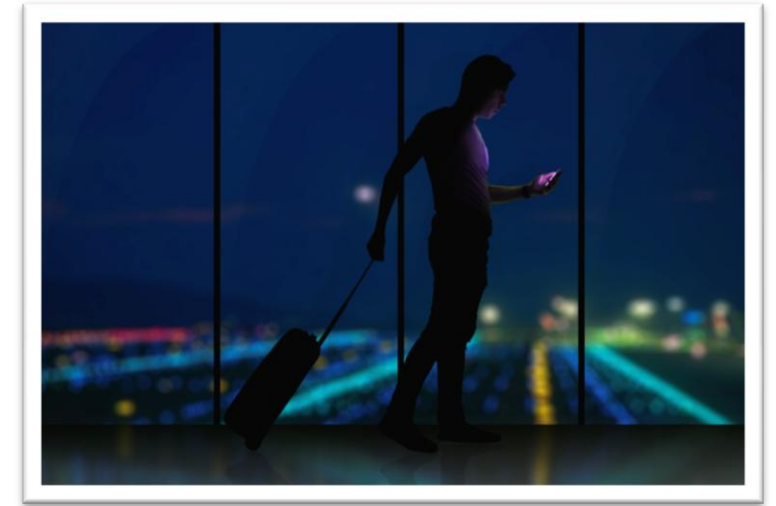
Automation introduces flexibility to your workflow



Start a test at **anytime**

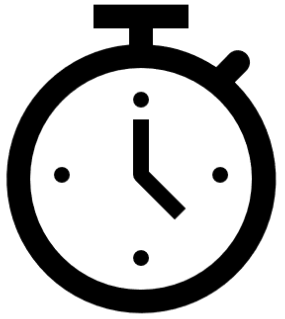


Tecta can be operated by **anyone**



Test **anywhere**

Faster test results



Results within 2-18 hours depending on the level of bacteria in the sample, with email reporting at the time of detection.



Automated reading and reporting of results

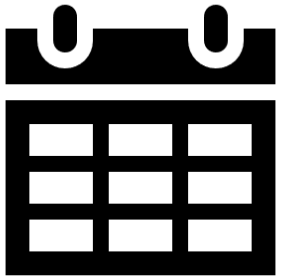


The reading and reporting of results is automated with Tecta. Samples are continuously read during the incubation period, with a positive or negative result sent immediately by email.

No visual reading of results: Remove human error, inconclusive results, and staffing/scheduling challenges.



Unlock greater productivity



Test anytime: Tecta enables Fridays, off-hours, and weekend testing.

Once tests are started, no need to come into the lab to perform visual analysis, write report, and communicate results.





The IDEXX Tecta System

The Tecta System

The Instruments



The Cartridges

1. Total Coliforms and *E. coli*
2. Rapid *E. coli*
3. *Enterococcus*
4. Fecal Coliforms



Two Tecta instruments (different throughput capacity)



Tecta B16

16 concurrent tests



Conduct different test types simultaneously



Tecta B4



4 concurrent tests



Smaller footprint ideal for mobile or remote testing



A dynamic range of <1 to 10^8 CFU / 100 mL for an undiluted sample

Four types of Tectalert tests

1

- *E. coli* and total coliforms
- 35.0°C incubation
- EPA approved for drinking water*

**Tectalert EC/TC
(CCA)**

2

- *E. coli*
- 41.5°C incubation
- 16 hours

**Tectalert EC
(ECA)**

3

- Fecal coliforms
- 44.5°C incubation

**Tectalert FC
(FCA)**

4

- *Enterococcus*
- 41.5°C incubation

**Tectalert ENT
(ENA)**

*U.S. EPA approval

The Tecta system can test three water types



Treated drinking
water

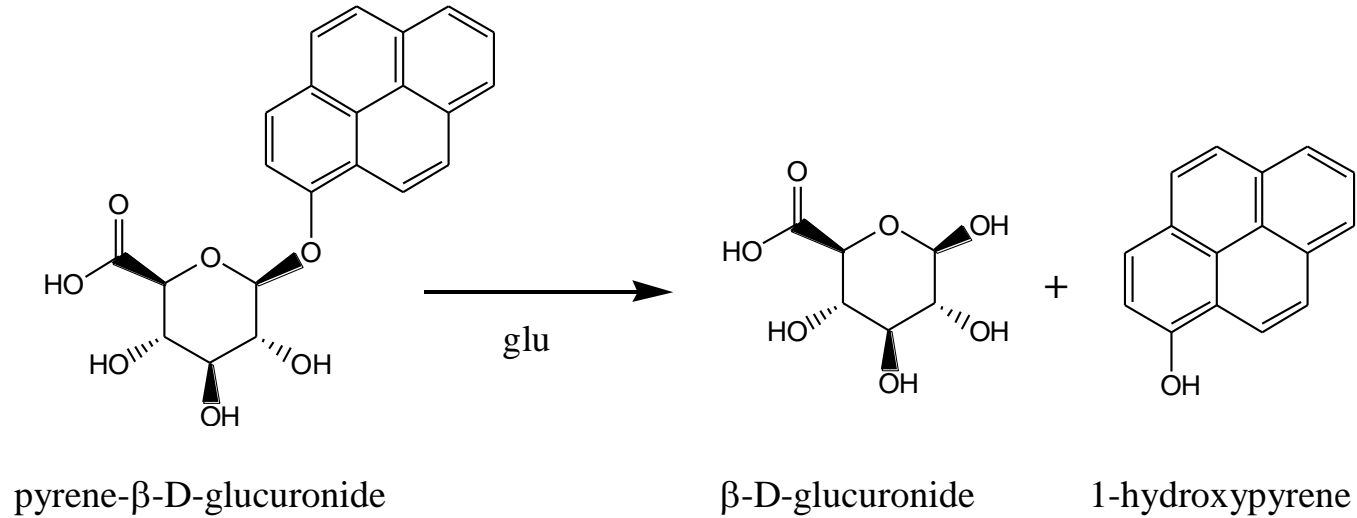


Ambient water
(surface, source,
recreational)



Wastewater

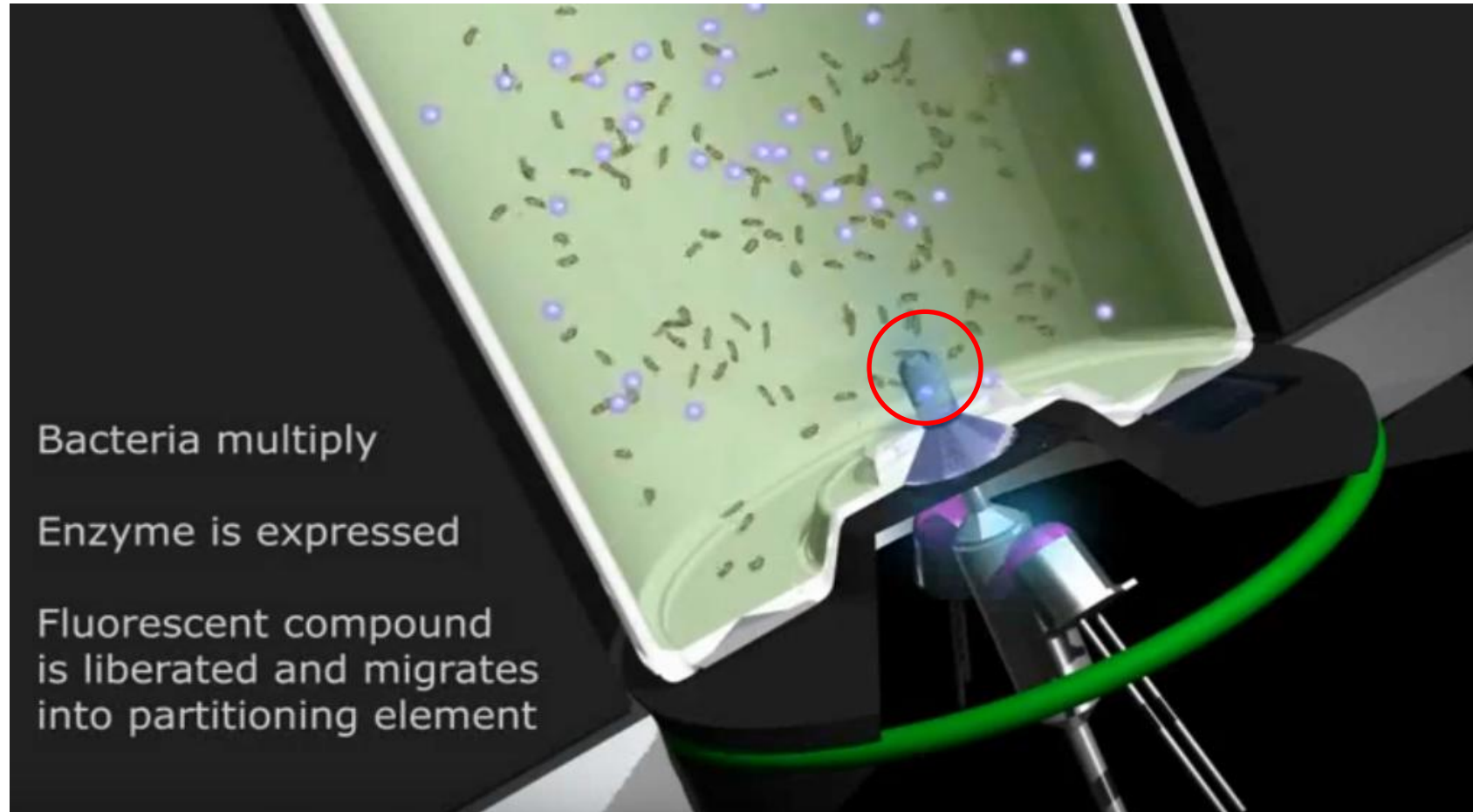
Enzymatic test method



- Same indicator enzymes as other IDEXX methods
- Hydrophobic and fluorescent markers are 'extracted' from the sample and migrate through the polymer partition
- Automated detection and notification of positive results



Patented polymer partition technology concentrates the fluorescent markers



Signal extraction reduces visual interference



Automate detection eliminates human interpretation



Sample color and turbidity do not impact test results

Dilute marine samples 1:10 for *E. coli* and enterococcus testing
(instrument will automatically adjust report for dilution factor)

U.S. EPA approval for drinking water P/A testing

“TECTA EC/TC Method” Approved by the U.S. EPA and published in the Federal Register on June 19, 2014, and updated on March 20, 2017

Approvals:

- Total Coliform Rule
- Revised Total Coliform Rule
- Groundwater Rule

Method Format:

- *E. coli* & total coliform presence/absence: 100 mL



[FR Doc. 2017-14940 Filed 7-26-17; 8:45 am]

BILLING CODE 6560-50-P

**ENVIRONMENTAL PROTECTION
AGENCY**

40 CFR Part 141

[EPA-HQ-OW-2017-0284; FRL-9964-78-OW]

Expedited Approval of Alternative Test Procedures for the Analysis of Contaminants Under the Safe Drinking Water Act; Analysis and Sampling Procedures

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

Results are available as both P/A and quantification

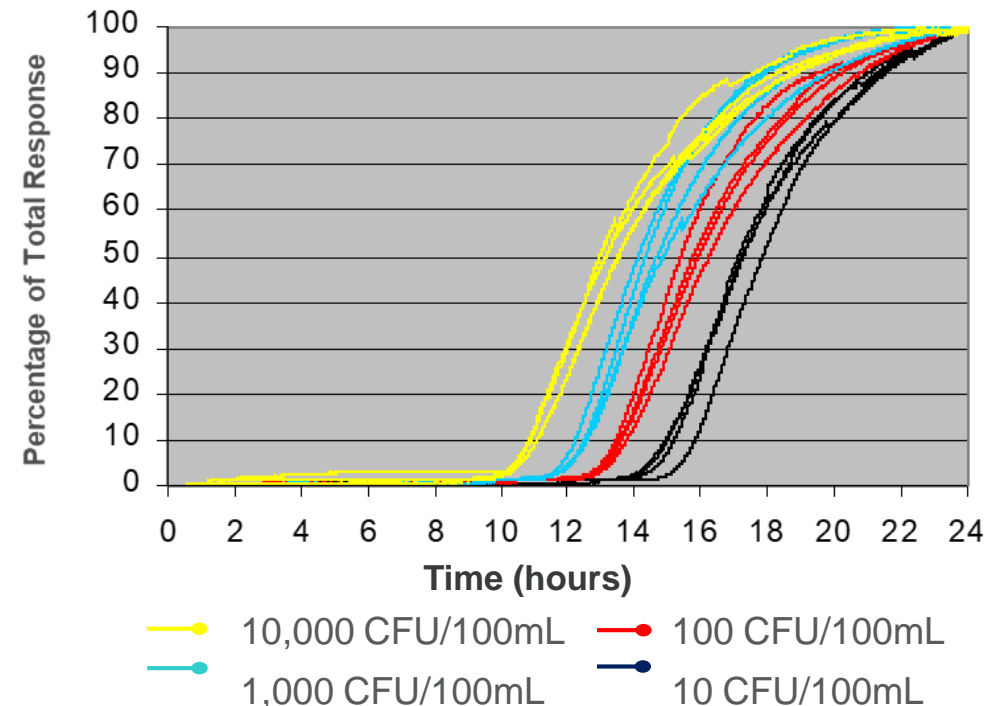
Presence/Absence

- U.S. EPA approval (TC/EC in drinking water)
- Any signal indicates target bacteria growth
- TC/EC tests provides simultaneous detection of *E. coli* and total coliforms in one test cartridge



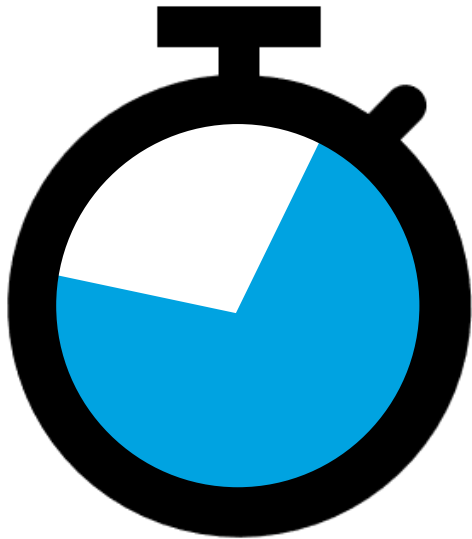
Quantification

- Signal onset provides time to detection (TTD)
- TTD statistically related to bacteria count

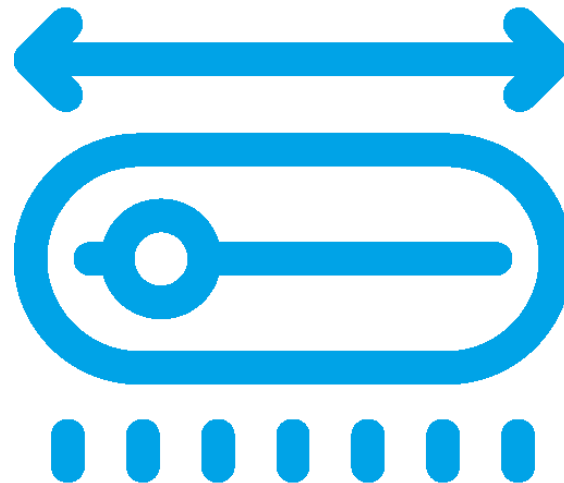


Advantages of continuous monitoring with Tecta

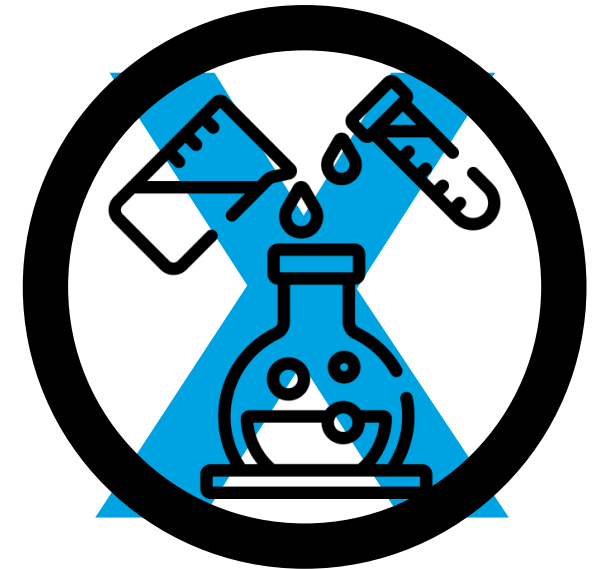
Total coliform and *E. coli* results available between **2 to 18 hours**



Quantitation range from **1 CFU/100mL** to **10⁸ CFU/100mL**



No dilutions required for most samples if results are under **10⁸ CFU/100mL**

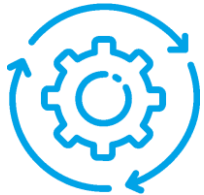


Secure and convenient data management

- Objective test report filed and secured for all samples
- Reports can be saved to USB or emailed with a CSV attachment



100% Objective



Automated



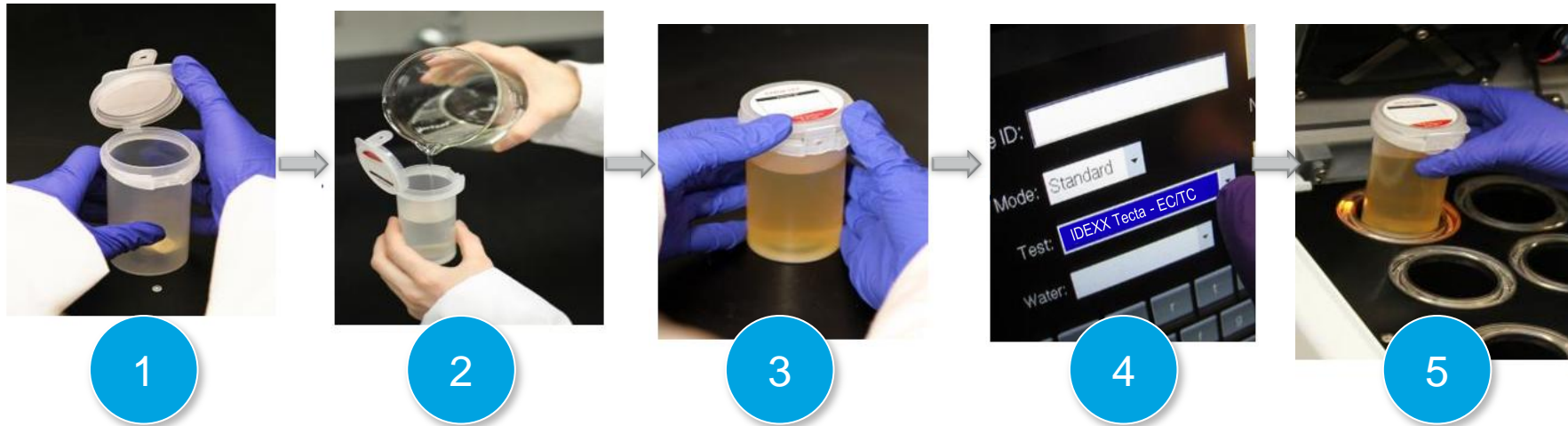
Secure





Easy to use

Simple, fast, and easy



**Easiest and fastest method available to conduct a test by
anyone, anywhere, at any time**

New test menu requires just a few inputs to start testing

- 1) Enter Sample ID
- 2) Select Test Cartridge Type
- 3) Select the Water Type

Sample ID

1

Mode Standard

2

Test IDEXX Tecta -EC/TC

3

Water Drinking

Location

New

Sample Size 100 ml

1 2 9 10

3 4 11 12

5 6 13 14

7 8 15 16

Reset

Remove All

Add

Test reports include comprehensive test information

Subject: ***Complete: Chamber1Task CCA/EC Present; TC Present

TECTA-B16 (2.2.3) Report

Sample ID: Raw Water

Collection Time: 2019-04-18 17:53:50

Stored: Unknown

Location: 001

Test Start Time: 2019-04-18 17:53:50

Target Temperature (C): 35.3

Actual Temperature (C): 35.41 @ 3:00 | 35.29 @ 9:00 |

Data File: XPDS00277.2019-04-18_17.53.50_Chamber1_TIME.pds

Build: 22320150304

Test Result: TECTA-CCA-EC/TC

E. coli Result: **Present**

EC Detect Time: 12h31m27s || Quantity: 1CFU/100 ml

[EC-35.5 Default Calibration rev. 1.0]

Total Coliform Result: **Present**

Total Coliform Detect Time: 12h26m19s || Quantity: 33CFU/100 ml

[TC-35.5 Default Calibration rev. 2.0]

XPDS00340.2019-12-11_16.46.06_Chamber1_r... (2K)

Sample ID and details

Incubation temperature

Automatic temperature records

Test type selected

Presence / absence

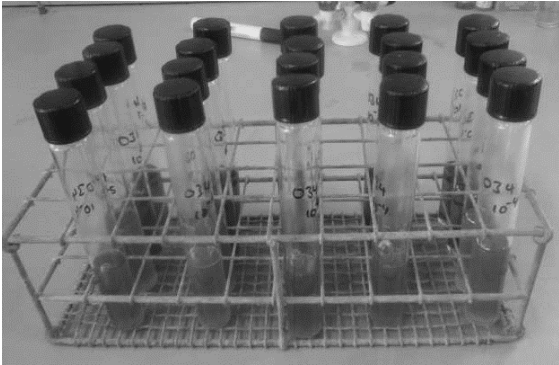
Detection time and quantity of cells

CSV attachment

How It Works Video



Coliforms evaluation evolution



Multiple-tube fermentation
(1930's)



Membrane filtration
(1950's)



Colilert Quanti-tray
(1990's)



TECTA
(2014's)

Source: Dufour A. A short history of methods used to measure bathing beach water quality. J Microbiol Methods. 2021 Feb;181:106134



Gerente de ventas – South America



Asesora técnica comercial

Gerente de ventas – Argentina



Thank you

IDEXX

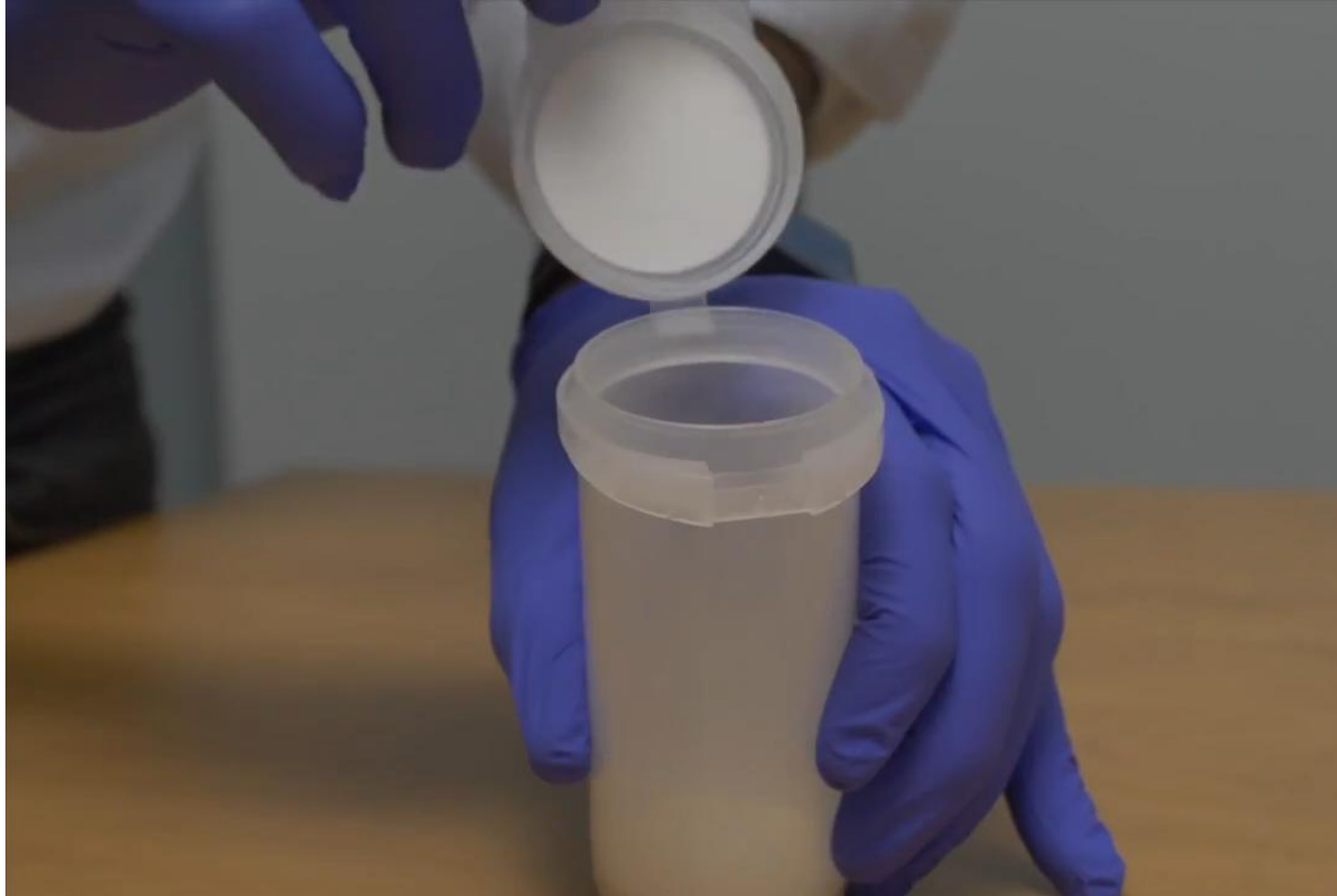


Appendix

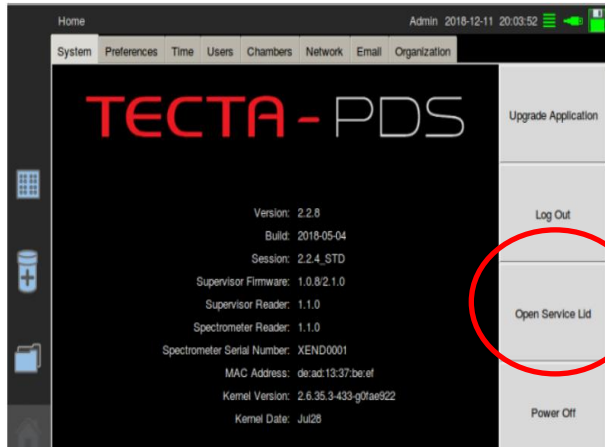
General Tour Video



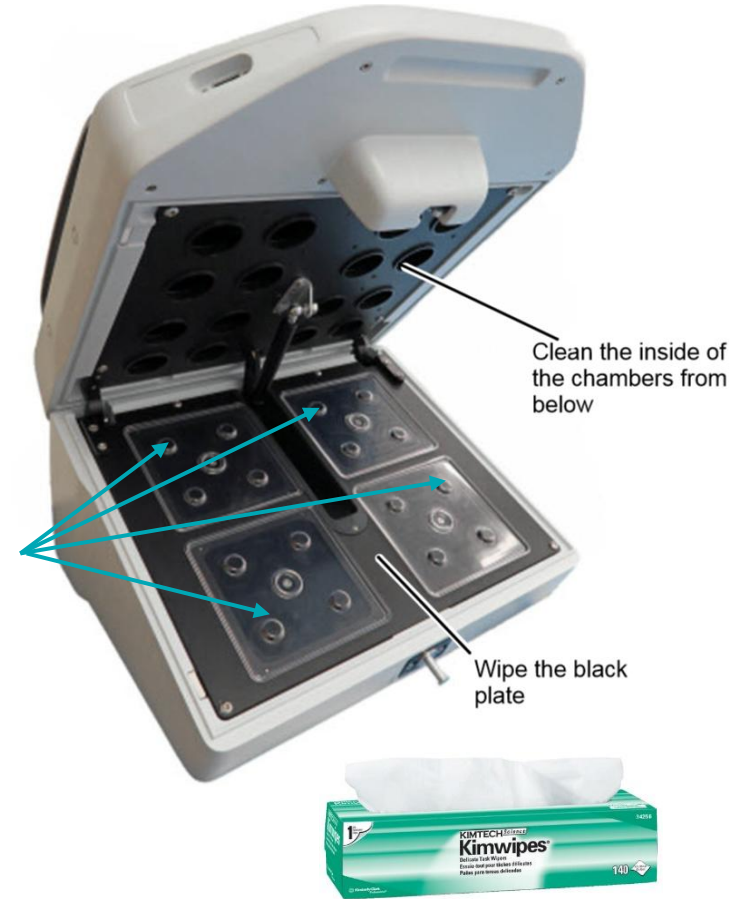
Preparing A Test Video



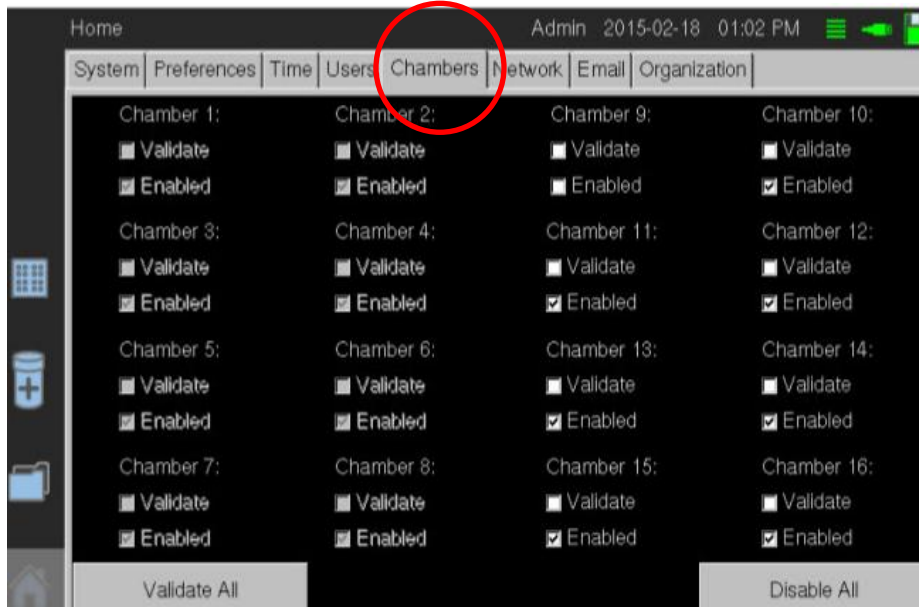
Easy Cleaning to Maintain



- Open service lid
- Clean the 4 optical cover plates & nubs with non-bleach disinfection wipes and dry with Kimwipes



Optical Validation QC



Pass



Fail



Chamber Disabled

- Once/month or once/week if heavy user. 20 minutes to validate all 16 chambers.
- Pass/Fail result based on built-in QC parameters (delta offset & peak delta %).
- Failed chamber optical validation usually indicates cleaning of the plastic optical cover plate is needed. Then re-validate.

Easy Maintenance & QC

Recommended Maintenance and Service Schedules

The following are recommended maintenance and service schedules for your TECTA instrument. Lab practices may dictate different intervals or activities.

Maintenance Activity	Recommended Interval
Cleaning / Disinfection	1 week or immediately after spills.
Optical Validation	1 month or more frequently if use and cleaning is more frequent
Optical Covers (B4 and B16 Rev.2 instruments only)	2 years (if required)
Thermal Validation (WI-056)	1 year or as dictated by lab practices

Easy Navigation and USB Connectivity

- 2 USB ports to connect devices.
- Can use finger, stylist, mouse, bar-code reader, and keyboard to navigate the touchscreen and enter data.



Minimal Lab Space Required

TECTA-B16 Size:

Height:	347 mm / 14 inches
Maximum height (open for cleaning):	628 mm / 25 inches
Width:	480 mm / 19 inches
Depth (front to back):	623 mm / 25 inches

TECTA-B4 Size:

Height:	275 mm / 11 inches
Maximum height (open for cleaning):	525 mm / 21 inches
Width:	305 mm / 12 inches
Depth (front to back):	486 mm / 18 inches